

1 H.702

2 Introduced by Committee on Natural Resources and Energy

3 Date:

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

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

8 First, for effect in 2014, the bill proposes amendments regarding the  
9 cumulative output capacity of all net metering systems, the capacity of  
10 individual solar net metering systems, the required additional incentive for  
11 those systems, the ownership of renewable energy credits associated with net  
12 metering systems, the creation of a pilot project under which an electric  
13 cooperative would install net metering systems, and the ability of an electric  
14 company whose power supply portfolio is 90 percent renewable to implement  
15 an alternative net metering program.

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

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

3 An act relating to self-generation and net metering

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

5 \* \* \* Net Metering Amendments for 2014 \* \* \*

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

7 § 219a. SELF-GENERATION AND NET METERING

8 (a) As used in this section:

9 (1) “Capacity” means the rated electrical nameplate for a net metering  
10 system, except that for a solar net metering system, the term shall have the  
11 same meaning as set forth for a solar energy plant under “plant capacity” in  
12 section 8002 of this title.

13 (2) “Customer” means a retail electric consumer who uses a net  
14 metering system.

15 (3) “Environmental attributes” shall have the same meaning as under  
16 section 8002 of this title.

17 (4) “Facility” means a structure or piece of equipment and associated  
18 machinery and fixtures that generates electricity. A group of structures or  
19 pieces of equipment shall be considered one facility if it uses the same fuel  
20 source and infrastructure and is located in close proximity. Common

1 ownership shall be relevant but not sufficient to determine that such a group  
2 constitutes a facility.

3 ~~(2)~~(5) “Net metering” means measuring the difference between the  
4 electricity supplied to a customer and the electricity fed back by a net metering  
5 system during the customer’s billing period:

6 (A) using a single, nondemand meter or such other meter that would  
7 otherwise be applicable to the customer’s usage but for the use of net  
8 metering; or

9 (B) on ~~farm or~~ group systems, using multiple meters as specified in  
10 this chapter. The calculation will be made by converting all meters to a  
11 nondemand, nontime-of-day meter, and equalizing them to the tariffed  
12 kilowatt-hour rate.

13 ~~(3)~~(6) “Net metering system” means a facility for generation of  
14 electricity that:

15 (A) is of no more than 500 kW capacity;

16 (B) operates in parallel with facilities of the electric  
17 distribution system;

18 (C) is intended primarily to offset the customer’s own electricity  
19 requirements; and

1           (D) ~~is located on the customer's premises or, in the case of a group~~  
2 ~~net metering system, on the premises of a customer who is a member of the~~  
3 ~~group; and~~

4           ~~(E)~~(i) employs a renewable energy source as defined in subdivision  
5 8002(17) of this title; or

6           (ii) is a qualified micro-combined heat and power system of  
7 20 kW or fewer that meets the definition of combined heat and power in  
8 ~~10 V.S.A. § 6523(b)~~ subsection 8015(b) of this title and may use any fuel  
9 source that meets air quality standards.

10          ~~(4) "Facility" means a structure or piece of equipment and associated~~  
11 ~~machinery and fixtures that generates electricity. A group of structures or~~  
12 ~~pieces of equipment shall be considered one facility if it uses the same fuel~~  
13 ~~source and infrastructure and is located in close proximity. Common~~  
14 ~~ownership shall be relevant but not sufficient to determine that such a group~~  
15 ~~constitutes a facility.~~

16          ~~(5)~~(7) "kW" means kilowatt or kilowatts (AC).

17          ~~(6)~~(8) "kWh" means kW hour or hours.

18          ~~(7)~~(9) "MW" means megawatt or megawatts (AC).

19          (10) "Tradeable renewable energy credits" shall have the same meaning  
20 as under section 8002 of this title.

1 (b) A customer shall pay the same rates, fees, or other payments and be  
2 subject to the same conditions and requirements as all other purchasers from  
3 the electric company in the same rate-class, except as provided for in this  
4 section, and except for appropriate and necessary conditions approved by the  
5 Board for the safety and reliability of the electric distribution system.

6 (c) The Board shall establish by rule or order standards and procedures  
7 governing application for, and issuance or revocation of a certificate of public  
8 good for net metering systems under the provisions of section 248 of this title.  
9 A net metering system shall be deemed to promote the public good of the State  
10 if it is in compliance with the criteria of this section, and board rules or orders.  
11 In developing such rules or orders, ~~the Board~~:

12 (1) With respect to a solar net metering system of ~~40~~ 15 kW or less, the  
13 Board shall provide that the system may be installed ten days after the  
14 customer's submission to the Board and the interconnecting electric company  
15 of a completed registration form and certification of compliance with the  
16 applicable interconnection requirements. Within that ten-day period, the  
17 interconnecting electric company may deliver to the customer and the Board a  
18 letter detailing any issues concerning the interconnection of the system. The  
19 customer shall not commence construction of the system prior to the passage  
20 of this ten-day period and, if applicable, resolution by the Board of any  
21 interconnection issues raised by the electric company in accordance with this

1 subsection. If the ten-day period passes without delivery by the electric  
2 company of a letter that raises interconnection issues in accordance with this  
3 subsection, a certificate of public good shall be deemed issued on the 11th day  
4 without further proceedings, findings of fact, or conclusions of law, and the  
5 customer may commence construction of the system. On request, the Clerk of  
6 the Board promptly shall provide the customer with written evidence of the  
7 system's approval. For the purpose of this subdivision, the following shall not  
8 be included in the computation of time: Saturdays, Sundays, State legal  
9 holidays under 1 V.S.A. § 371(a), and federal legal holidays under 5 U.S.C.  
10 § 6103(a).

11 (2) With respect to a net metering system for which a certificate of  
12 public good is not deemed issued under subdivision (1) of this subsection, the  
13 Board:

14 (A) may waive the requirements of section 248 of this title that are  
15 not applicable to net metering systems, including criteria that are generally  
16 applicable to public service companies as defined in this title;

17 (B) may modify notice and hearing requirements of this title as it  
18 deems appropriate;

19 (C) shall seek to simplify the application and review process as  
20 appropriate; and

1 (D) shall find that such rules are consistent with ~~state~~ State power  
2 plans.

3 (3) The Board shall require that the registration or application for  
4 approval of a net metering system declare whether the customer retains  
5 ownership of the environmental attributes of any electricity generated by the  
6 net metering system or transfers ownership of those attributes to the  
7 interconnecting electric company.

8 \* \* \*

9 (e) Consistent with the other provisions of this title, electric energy  
10 measurement for net metering systems using a single nondemand meter that  
11 are not group systems shall be calculated in accordance with  
12 subdivisions (1)-(3) of this subsection, and electric energy measurement for net  
13 metering systems that use other types of meters shall be calculated in  
14 accordance with subdivision (4) of this subsection.

15 (1) The electric company which serves the net metering customer shall  
16 measure the net electricity produced or consumed during the customer's billing  
17 period, in accordance with normal metering practices.

18 (2) If the electricity supplied by the electric company exceeds the  
19 electricity generated by the customer and fed back to the electric distribution  
20 system during the billing period, the customer shall be billed for the net

1 electricity supplied by the electric company, in accordance with normal  
2 metering practices.

3 (3) If electricity generated by the customer exceeds the electricity  
4 supplied by the electric company, each of the following shall apply:

5 (A) The electric company shall calculate a monetary credit to the  
6 customer by multiplying the excess kWh generated during the billing period by  
7 the kWh rate paid by the customer for electricity supplied by the company and  
8 shall apply the credit to any remaining charges on the customer's bill for that  
9 period; If the applicable rate schedule includes inclining block rates, the rate  
10 used for this calculation shall be a blend of those rates determined by adding  
11 together all of the revenues to the company during a recent test year from kWh  
12 sold under those block rates and dividing the sum by the total kWh sold by the  
13 company at those rates during that same year.

14 (B) If application to such charges does not use the entire balance of  
15 the credit, the remaining balance of the credit shall appear on the customer's  
16 bill for the following billing period; ~~and,~~

17 (C) Any accumulated credits shall be used within 12 months, or shall  
18 revert to the electric company, without any compensation to the customer.  
19 Power reverting to the electric company under this subdivision (3) shall be  
20 considered SPEED resources under section 8005 of this title.





1 15 percent of the distribution company's peak demand during 1996; or the  
2 peak demand during the most recent full calendar year, whichever is greater.  
3 However, after reaching this cap, an electric company may continue to accept  
4 solar net metering systems of 15 kW or less without prior Board approval. The  
5 For other net metering systems, the Board may raise the 4.0 15 percent cap on  
6 petition of an electric company. In determining whether to raise the cap, the  
7 Board shall consider the following:

- 8 (i) the costs and benefits of net metering systems already  
9 connected to the system; ~~and~~  
10 (ii) the potential costs and benefits of exceeding the cap, including  
11 potential short- and long-term impacts on rates, distribution system costs and  
12 benefits, reliability, and diversification costs and benefits; and  
13 (iii) the environmental benefits and costs;

14 \* \* \*

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

21 \* \* \*

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

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

13          (K) ~~Except as provided in subdivision (v) of this subdivision (1)(K),~~  
14          ~~shall~~ Shall in its rate schedules offer a credit to each net metering customer  
15          using solar energy that shall apply to each kWh generated by the customer's  
16          solar net metering system and that shall not displace the benefits provided to  
17          such customers under subsections (e) and (f) of this section.

18                 (i) The credit required by this subdivision (K) shall be ~~\$0.20~~ the  
19          adder sum minus the residential rate per kWh charged by the company as of  
20          the date it files with the Board a proposed modification to its rate schedules to

1 effect this subdivision (K) or to revise a credit previously instituted under this  
2 subdivision (K). ~~For the purposes of~~ Under this subdivision (K), ~~the~~

3 (I) The adder sum shall be \$0.20 if the solar net metering  
4 system is of 15 kW capacity or less and otherwise shall be \$0.19.

5 (II) The residential rate shall be the kWh rate charged by the  
6 company under its general residential rate schedule that consists of two rate  
7 components: a service charge and a kWh rate, and shall exclude time-of-use  
8 rates and demand rates.

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

13 (IV) Notwithstanding the basis for this credit calculation, the  
14 amount of the credit shall not fluctuate with changes in the underlying  
15 residential rate used to calculate the amount.

16 (ii) The electric company shall apply the credit calculated in  
17 accordance with subdivision (i) of this subdivision (1)(K) to generation from  
18 each net metering system using solar energy regardless of the customer's rate  
19 class. A credit under this subdivision (K) shall be applied to all charges on the  
20 customer's bill from the electric company and shall be subject to the provisions  
21 of subdivisions (e)(3)(B)(credit for unused balance) and (C)(12-month

1 reversion) and (f)(3)(credit for excess generation; group net metering) of this  
2 section.

3 (iii) An electric company's proposed modification to a rate  
4 schedule to offer a credit under this subdivision (K) and any investigation  
5 initiated by the Board or party other than the company of an existing credit  
6 contained in such a rate schedule shall be reviewed in accordance with the  
7 procedures set forth in section 225 of this title, except that:

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

11 (II) Such a modification or investigation into an existing credit  
12 shall not require review of the company's entire cost of service; and

13 (III) Such a modification or existing credit may be altered by  
14 the Board for prospective effect only commencing with the date of the Board's  
15 decision.

16 (iv) ~~Within 30 days of this subdivision's effective date, each~~  
17 ~~electric company shall file a proposed modification to its rate schedule that~~  
18 ~~complies with this subdivision (K). Such proposed modification, as it may be~~  
19 ~~revised by the Board, shall not be changed for two years starting with the date~~  
20 ~~of the Board's decision on the modification. After the passage of that two year~~  
21 ~~period, further modifications to the amount of a credit under this subdivision~~

1 ~~may be made in accordance with subdivisions (i)-(iii) of this subdivision~~  
2 ~~(1)(K).~~

3           (v) An electric company shall not be required to offer a credit  
4 under this subdivision (K) if, ~~as of the effective date of this subdivision,~~ the  
5 result of the calculation described in subdivision (i) of this subdivision (1)(K)  
6 is zero or less.

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

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

1 subsequent modification to the credit as contained in the company's rate  
2 schedules.

3 (vii) Should an additional meter at the premises of the net  
4 metering customer be necessary to implement this subdivision ~~(vii)(K)~~, or  
5 should that meter need replacement because it fails or is destroyed, the net  
6 metering customer shall not pay a charge greater than the cost of the equipment  
7 and installation of the additional or replacement meter.

8 (2) All such requirements or credits or other incentives shall be pursuant  
9 to and governed by a tariff approved by the ~~board and any applicable Board~~  
10 that is consistent with Board rule rules under this section, which tariffs and  
11 rules shall be designed in a manner reasonably likely to facilitate net metering.  
12 With respect to a credit or incentive under subdivision (1)(J) (optional credit or  
13 incentive) or (K) (solar credit) of this subsection (h) that is provided to a net  
14 metering system that constitutes new renewable energy under subdivision  
15 8002(4) of this title:

16 (A) If the credit or incentive applies to each kWh generated by the  
17 system, then the system's energy production shall count toward the goals and  
18 requirements of subsection 8005(d) of this title.

19 (B) If the credit or incentive applies only to the system's net energy  
20 production supplied to the company, then the increment of net energy  
21 production supplied by the customer to the company through a net metering

1 system that is supported by such additional credit or incentive shall count  
2 toward the goals and requirements of subsection 8005(d) of this title.

3 (i)(1) A net metering system using photovoltaic generation shall conform to  
4 applicable electrical safety, power quality, and interconnection requirements  
5 established by the National Electrical Code, the Institute of Electrical and  
6 Electronic Engineers, and Underwriters Laboratories. The customer shall be  
7 responsible for installation, testing, accuracy, and maintenance of net metering  
8 equipment.

9 (2) ~~By March 1, 1999, the~~ The Board shall adopt, by rule or order,  
10 electrical safety, power quality, and interconnection requirements for net  
11 metering equipment which uses generation technologies other than  
12 photovoltaic technology. In developing safety rules, and any amendments to  
13 those rules, the Board shall solicit input from representatives of utilities and  
14 agents representing line workers.

15 (3) The Board may adopt, by rule or order, additional safety, power  
16 quality, and interconnection requirements for customers that the Board  
17 determines are necessary to protect public safety and system reliability.

18 (4) ~~Pending the effective date of requirements adopted by the Board~~  
19 ~~under subsection (c) of this section and subdivision (2) of this subsection, an~~  
20 ~~electric company may allow a customer to interconnect a net metering system,~~  
21 ~~to be operated as provided in this section, if the company is reasonably~~



1 ~~satisfied concerning the safety and power quality of the system. The customer~~  
2 ~~may then operate the net metering system pending application for and receipt~~  
3 ~~of a certificate of public good under subsection (c) of this section, provided~~  
4 ~~such application shall be made within three months after the effective date of~~  
5 ~~requirements adopted by the Board under subsection (c).~~

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

10 (j) ~~{Deleted.}~~ [Repealed.]

11 \* \* \*

12 (m) A facility for the generation of electricity to be consumed primarily by  
13 the Military Department established under 3 V.S.A. § 212 and 20 V.S.A.  
14 § 361(a) or the National Guard as defined in 32 U.S.C. § 101(3), and installed  
15 on property of the Military Department or National Guard located in Vermont,  
16 shall be considered a net metering system for purposes of this section if it has a  
17 capacity of 2.2 MW or less and meets the provisions of subdivisions (a)(3)(B)  
18 through (E) of this section. Such a facility shall not be subject to and shall not  
19 count toward the capacity limits of subdivisions (a)(3)(A) (no more than  
20 500 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~~ *solar generation facility or group of solar generation facilities* to be consumed by the company or its customers and installed on land owned or leased by the company.

1           (1) Under this pilot project, the Board shall consider the facility or group  
2           of facilities a net metering system if the cumulative capacity of the facility or  
3           group of facilities does not exceed five MW and each facility otherwise meets  
4           the definition of a net metering system. In applying this definition to the  
5           facility or group of facilities, the Board shall treat the electric cooperative's  
6           consumption as the consumption of a customer.

7           (2) As part of this pilot project, the electric cooperative may propose to  
8           the Board alternatives to the requirements of subsections (b) (same rates and  
9           charges), (e) (credits; single meter systems), (f) (credits; group net metering  
10           systems), and (g) (requirements; group net metering systems) and subdivision  
11           (h)(1)(K) (required solar incentive) of this section, including alternative credit  
12           amounts, bill procedures, and energy measurement methodologies. Using the  
13           procedures set forth in section 225 of this title, the Board may approve these  
14           alternatives if it determines that they are just and reasonable.

15           (3) Under this pilot project, the electric cooperative may seek siting  
16           approval for the facility or group of facilities pursuant to the Board's order

1 issued under subsection 8007(b) of this title, notwithstanding that subsection's  
2 limitation to plants with a plant capacity greater than 150 kW and 2.2 MW  
3 or less.

4 (4) If an electric cooperative elects to implement a pilot project under  
5 this subsection, then:

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

9 (B) any remaining unallocated capacity of the cooperative under  
10 subdivision (h)(1)(A) of this section as of the effective date of this subsection  
11 shall be allocated equally among calendar years 2014, 2015, and 2016, with  
12 any unused capacity in 2014 carried forward to and allocated equally between  
13 the other two years.

14 (o) An electric company that meets and maintains the renewable energy  
15 achievement requirements of subdivision (1) of this subsection (the  
16 achievement requirements) shall obtain relief from the obligations described in  
17 subdivision (2) of this subsection by submitting to the Board a proposed rate  
18 schedule for an alternative net metering program under subdivision (3) of this  
19 subsection within 90 days of meeting the achievement requirements.

20 (1) This renewable energy achievement provision shall require that:

1           (A) the cumulative output capacity of net metering systems installed  
2 in the electric company's service territory, calculated in accordance with  
3 subdivision (h)(1)(A) of this section, meets or exceeds 10 percent;

4           (B) the electric company owns and has retired tradeable renewable  
5 energy credits monitored and traded on the New England Generation  
6 Information System equivalent to 90 percent of the company's total annual  
7 retail sales of electricity for the prior year; and

8           (C) the electric company certifies, by annual written submission to  
9 the Board, compliance with the requirements of subdivisions (1)(A) and (B) of  
10 this subsection (o).

11           (2) The obligations for which this subsection authorizes relief are the  
12 obligations to make net metering available in accordance with subsections (b)  
13 (same rates and charges), (e) (measurement; credits), (f) (credits; group net  
14 metering systems), (g) (requirements; group net metering systems), and (h)  
15 (electric company obligations; authority) of this section.

16           (3) Using the procedures set forth in section 225 of this title, an electric  
17 company that meets the achievement requirements may propose to the Board a  
18 rate schedule to implement a net metering program in its service territory that  
19 may have a capacity limit that differs from the limit contained in the definition  
20 of net metering system, that may require the company to own all or a portion  
21 of the environmental attributes of generation within the program and any

1 associated tradeable renewable energy credits, that may require customer  
2 charges or other charges to capture fixed costs necessary to support the utility's  
3 infrastructure, and that may propose alternatives to the requirements listed in  
4 subdivision (2) of this subsection, including alternative credit amounts, bill  
5 procedures, and energy measurement methodologies. The Board may approve  
6 this rate schedule if it determines that it is just and reasonable.

7 (p) The Department of Public Service shall maintain a web page with  
8 current information on the capacity of net metering systems installed and  
9 interconnected in Vermont.

10 (1) This web page shall:

11 (A) state the total number and capacity of these systems statewide, by  
12 electric company service territory, and by category of renewable energy  
13 technology such as solar or wind; and

14 (B) state the progress of each electric company toward the  
15 cumulative output capacity described in subdivision (h)(1)(A) of this section.

16 (2) To effectuate this web page:

17 (A) At a frequency and in the manner directed by the Department,  
18 each electric company shall report to the Department the total number and  
19 capacity of net metering systems installed and interconnected in the company's  
20 service territory, with an itemization of these systems by category of renewable  
21 energy technology.

1           (B) In the first report submitted under this subdivision (2), each  
2           electric company shall provide the total number and capacity of net metering  
3           systems installed and interconnected in the company's service territory up to  
4           the date of the report, with an itemization of these systems by category of  
5           renewable energy.

6           \* \* \* Comprehensive Net Metering Revisions for 2017 \* \* \*

7           Sec. 2. REPEAL

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

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

11          § 8002. DEFINITIONS

12           As used in this chapter:

13           (1) "Board" means the Public Service Board under section 3 of this title,  
14           except when used to refer to the Clean Energy Development Board.

15           (2) "Commissioned" or "commissioning" means the first time a plant is  
16           put into operation following initial construction or modernization if the costs of  
17           modernization are at least 50 percent of the costs that would be required to  
18           build a new plant including all buildings and structures technically required for  
19           the new plant's operation. However, these terms shall not include activities  
20           necessary to establish operational readiness of a plant.

1           (3) “CPI” means the Consumer Price Index for all urban consumers,  
2 designated as “CPI-U,” in the northeast region, as published by the U.S.  
3 Department of Labor, Bureau of Labor Statistics.

4           (4) “Customer” means a retail electric consumer.

5           (5) “Department” means the Department of Public Service under  
6 section 1 of this title, unless the context clearly indicates otherwise.

7           ~~(5)~~(6) “Energy conversion efficiency” means the effective use of energy  
8 and heat from a combustion process.

9           ~~(6)~~(7) “Environmental attributes” means the characteristics of a plant  
10 that enable the energy it produces to qualify as renewable energy and include  
11 any and all benefits of the plant to the environment such as avoided emissions  
12 or other impacts to air, water, or soil that may occur through the plant’s  
13 displacement of a nonrenewable energy source.

14           ~~(7)~~(8) “Existing renewable energy” means renewable energy produced  
15 by a plant that came into service prior to or on December 31, 2004.

16           ~~(8)~~(9) “Greenhouse gas reduction credits” shall be as defined in section  
17 8006a of this title.

18           (10) “Group net metering system” means a net metering system serving  
19 more than one customer, or a single customer with multiple electric meters,  
20 located within the service area of the same retail electricity provider. Various  
21 buildings owned by municipalities, including water and wastewater districts,

1 fire districts, villages, school districts, and towns, may constitute a group net  
2 metering system. A union or district school facility shall be considered in the  
3 same group net metering system with buildings of its member municipalities  
4 that are located within the service area of the same retail electricity provider  
5 that serves the facility.

6 ~~(9)~~(11) “kW” means kilowatt or kilowatts (AC).

7 ~~(10)~~(12) “kWh” means kW hour or hours.

8 ~~(11)~~(13) “MW” means megawatt or megawatts (AC).

9 ~~(12)~~(14) “MWH” means MW hour or hours.

10 (15) “Net metering” means measuring the difference between the  
11 electricity supplied to a customer and the electricity fed back by the customer’s  
12 net metering system during the customer’s billing period:

13 (A) using a single, non-demand meter or such other meter that would  
14 otherwise be applicable to the customer’s usage but for the use of net  
15 metering; or

16 (B) if the system serves more than one customer, using multiple  
17 meters. The calculation shall be made by converting all meters to a  
18 non-demand, non-time-of-day meter, and equalizing them to the tariffed  
19 kWh rate.

20 (16) “Net metering system” means a plant for generation of  
21 electricity that:



1           (A) is of no more than 500 kW capacity;

2           (B) operates in parallel with facilities of the electric

3 distribution system;

4           (C) is intended primarily to offset the customer's own

5 electricity requirements; and

6           (D)(i) employs a renewable energy source; or

7           (ii) is a qualified micro-combined heat and power system of

8 20 kW or fewer that meets the definition of combined heat and power in

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

10 quality standards.

11           ~~(13)~~(17) "New renewable energy" means renewable energy produced by  
12 a specific and identifiable plant coming into service after December 31, 2004.

13           (A) Energy from within a system of generating plants that includes  
14 renewable energy shall not constitute new renewable energy, regardless of  
15 whether the system includes specific plants that came or come into service  
16 after December 31, 2004.

17           (B) "New renewable energy" also may include the additional energy  
18 from an existing renewable energy plant retrofitted with advanced technologies  
19 or otherwise operated, modified, or expanded to increase the kWh output of the  
20 plant in excess of an historical baseline established by calculating the average  
21 output of that plant for the 10-year period that ended December 31, 2004. If

1 the production of new renewable energy through changes in operations,  
2 modification, or expansion involves combustion of the resource, the system  
3 also must result in an incrementally higher level of energy conversion  
4 efficiency or significantly reduced emissions.

5 ~~(14)~~(18) “Plant” means an independent technical facility that generates  
6 electricity from renewable energy. A group of ~~newly constructed~~ facilities,  
7 such as wind turbines, shall be considered one plant if the group is part of the  
8 same project and uses common equipment and infrastructure such as roads,  
9 control facilities, and connections to the electric grid. Common ownership,  
10 contiguity in time of construction, and proximity of facilities to each other  
11 shall be relevant to determining whether a group of facilities is part of the same  
12 project.

13 ~~(15)~~(19) “Plant capacity” means the rated electrical nameplate for a  
14 plant, except that, in the case of a solar energy plant, the term shall mean the  
15 aggregate AC nameplate capacity of all inverters used to convert the plant’s  
16 output to AC power.

17 ~~(16)~~(20) “Plant owner” means a person who has the right to sell  
18 electricity generated by a plant.

19 ~~(17)~~(21) “Renewable energy” means energy produced using a  
20 technology that relies on a resource that is being consumed at a harvest rate at  
21 or below its natural regeneration rate.

1 (A) For purposes of this subdivision ~~(17)~~(21), methane gas and other  
2 flammable gases produced by the decay of sewage treatment plant wastes or  
3 landfill wastes and anaerobic digestion of agricultural products, byproducts, or  
4 wastes shall be considered renewable energy resources, but no form of solid  
5 waste, other than agricultural or silvicultural waste, shall be considered  
6 renewable.

7 (B) For purposes of this subdivision ~~(17)~~(21), no form of nuclear fuel  
8 shall be considered renewable.

9 (C) The only portion of electricity produced by a system of  
10 generating resources that shall be considered renewable is that portion  
11 generated by a technology that qualifies as renewable under this  
12 subdivision ~~(17)~~(21).

13 (D) ~~After conducting administrative proceedings, the~~ The Board by  
14 rule may add technologies or technology categories to the definition of  
15 “renewable energy,” provided that technologies using the following fuels shall  
16 not be considered renewable energy supplies: coal, oil, propane, and  
17 natural gas.

18 (E) ~~For the purposes of~~ In this chapter, renewable energy refers to  
19 either “existing renewable energy” or “new renewable energy.”

20 ~~(18)~~(22)(A) “Renewable pricing” shall mean an optional service  
21 provided or contracted for by an electric company:

1 (i) under which the company's customers may voluntarily either:

2 (I) purchase all or part of their electric energy from renewable  
3 sources as defined in this chapter; or

4 (II) cause the purchase and retirement of tradeable renewable  
5 energy credits on the participating customer's behalf; and

6 (ii) which increases the company's reliance on renewable sources  
7 of energy beyond those the electric company would otherwise be required to  
8 provide under section 218c of this title.

9 (B) Renewable pricing programs may include:

10 (i) contribution-based programs in which participating customers  
11 can determine the amount of a contribution, monthly or otherwise, that will be  
12 deposited in a Board-approved fund for new renewable energy project  
13 development;

14 (ii) energy-based programs in which customers may choose all or  
15 a discrete portion of their electric energy use to be supplied from renewable  
16 resources;

17 (iii) facility-based programs in which customers may subscribe to  
18 a share of the capacity or energy from specific new renewable energy  
19 resources.

20 ~~(19)~~(23) "Retail electricity provider" or "provider" means a company  
21 engaged in the distribution or sale of electricity directly to the public.

1           ~~(20)~~(24) “SPEED Facilitator” means an entity appointed by the Board  
2 pursuant to subdivision 8005(b)(1) of this title.

3           ~~(21)~~(25) “SPEED resources” means contracts for resources in the  
4 SPEED program established under section 8005 of this title that meet the  
5 definition of renewable energy under this section, whether or not  
6 environmental attributes are attached.

7           ~~(22)~~(26) “Tradeable renewable energy credits” means all of the  
8 environmental attributes associated with a single unit of energy generated by a  
9 renewable energy source where:

10           (A) those attributes are transferred or recorded separately from that  
11 unit of energy;

12           (B) the party claiming ownership of the tradeable renewable energy  
13 credits has acquired the exclusive legal ownership of all, and not less than all,  
14 the environmental attributes associated with that unit of energy; and

15           (C) exclusive legal ownership can be verified through an auditable  
16 contract path or pursuant to the system established or authorized by the Board  
17 or any program for tracking and verification of the ownership of environmental  
18 attributes of energy legally recognized in any state and approved by the Board.

19           ~~(23)~~(27) “Vermont composite electric utility system” means the  
20 combined generation, transmission, and distribution resources along with the  
21 combined retail load requirements of the Vermont retail electricity providers.

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

2 § 8010. SELF-GENERATION AND NET METERING

3 (a) A customer may install and operate a net metering system in accordance  
4 with this section and the rules adopted under this section.

5 (b) A net metering customer shall pay the same rates, fees, or other  
6 payments and be subject to the same conditions and requirements as all other  
7 purchasers from the interconnecting retail electricity provider in the same  
8 rate-class, except as this section or the rules adopted under this section may  
9 provide, and except for appropriate and necessary conditions approved by the  
10 Board for the safety and reliability of the electric distribution system.

11 (c) In accordance with this section, the Board shall adopt and implement  
12 rules that govern the installation and operation of net metering systems.

13 (1) The rules shall establish and maintain a net metering program that:

14 (A) advances the goals and total renewables targets of this chapter  
15 and the goals of 10 V.S.A. § 578 (greenhouse gas reduction) and is consistent  
16 with the criteria of subsection 248(b) of this title;

17 (B) achieves a level of deployment that is consistent with the  
18 recommendations of the Electrical Energy and Comprehensive Energy Plans  
19 under sections 202 and 202b of this title, unless the Board determines that this  
20 level is inconsistent with the goals and targets identified in subdivision (1)(A)

1 of this subsection. Under this subdivision (B), the Board shall consider the  
2 Plans most recently issued at the time the Board adopts or amends the rules;

3 (C) to the extent feasible, ensures that net metering does not shift  
4 costs included in each retail electricity provider's revenue requirement between  
5 net metering customers and other customers;

6 (D) accounts for all costs and benefits of net metering, including the  
7 potential for net metering to contribute toward relieving supply constraints in  
8 the transmission and distribution systems and to reduce consumption of fossil  
9 fuels for heating and transportation;

10 (E) ensures that all customers who want to participate in net metering  
11 have the opportunity to do so;

12 (F) balances, over time, the pace of deployment and cost of the  
13 program with the program's impact on rates; and

14 (G) accounts for changes over time in the cost of technology.

15 (2) The rules shall include provisions that govern:

16 (A) whether there is a limit on the cumulative plant capacity of net  
17 metering systems to be installed over time and what that limit is, if any;

18 (B) the transfer of certificates of public good issued for net metering  
19 systems and the abandonment of net metering systems;

20 (C) the respective duties of retail electricity providers and net  
21 metering customers;

1           (D) the electrical safety, power quality, interconnection, and metering  
2 of net metering systems;

3           (E) the formation of group net metering systems, the resolution of  
4 disputes between group net metering customers and the interconnecting  
5 provider, and the billing, crediting, and disconnection of group net metering  
6 customers by the interconnecting provider;

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

13           (G) the ownership and transfer of the environmental attributes of  
14 energy generated by net metering systems and of any associated tradeable  
15 renewable energy credits.

16           (3) The rules shall establish standards and procedures governing  
17 application for and issuance or revocation of a certificate of public good for net  
18 metering systems under the provisions of section 248 of this title. In  
19 establishing these standards and procedures, the rules:



1           (A) may waive the requirements of section 248 of this title that are  
2           not applicable to net metering systems, including criteria that are generally  
3           applicable to public service companies as defined in this title;

4           (B) may modify notice and hearing requirements of this title as the  
5           Board considers appropriate; and

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

8           (4) This section does not require the Board to adopt identical  
9           requirements for the service territory of each retail electricity provider.

10          (5) Each retail electricity provider shall implement net metering in its  
11          service territory through a rate schedule that is consistent with this section and  
12          the rules adopted under this section and is approved by the Board.

13          (d) On or before January 15, 2020 and every third January 15 thereafter, the  
14          Department shall submit to the Board a report that evaluates the current state of  
15          net metering in Vermont. The Department shall make this report publically  
16          available. The report shall:

17                (1) analyze the current pace of net metering deployment, both statewide  
18                and within the service territory of each retail electricity provider;

19                (2) after considering the goals and policies of this chapter, of 10 V.S.A.  
20                § 578 (greenhouse gas reduction), of section 202a (State energy policy) of this  
21                title, and of the Electrical Energy and Comprehensive Energy Plans under

1 sections 202 and 202b of this title, recommend the future pace of net metering  
2 deployment statewide and within the service territory of each provider;

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

6 (4) evaluate the effect of net metering on retail electricity provider  
7 infrastructure and revenue;

8 (5) evaluate the benefits to net metering customers of connecting to the  
9 provider's distribution system;

10 (6) analyze the economic and environmental benefits of net metering,  
11 and the short- and long-term impacts on rates, both statewide and for each  
12 provider;

13 (7) analyze the reliability and supply diversification costs and benefits  
14 of net metering;

15 (8) evaluate the ownership and transfer of the environmental attributes  
16 of energy generated by net metering systems and of any associated tradeable  
17 renewable energy credits; and

18 (9) examine and evaluate best practices for net metering identified from  
19 other states.

1       Sec. 5. REVISED NET METERING PROGRAM; DEVELOPMENT;  
2               REPORTS; RULEMAKING

3           (a) Process; revised program. This section creates a process to result in the  
4           establishment of a revised net metering program commencing on January 1,  
5           2017. The components of the process include a report by the Department of  
6           Public Service (DPS) to the Public Service Board (Board or PSB), one or more  
7           workshops by the Board, the proposal of rules for the new program by the  
8           Board with a contemporaneous report by the Board to the General Assembly,  
9           and the adoption of new net metering rate schedules by Vermont's retail  
10          electricity providers.

11          (b) DPS report to Board. On or before October 1, 2014, the DPS shall  
12          submit a report to the Board that evaluates the current state of net metering in  
13          Vermont. The report shall include each of the items listed in Sec. 4 of this act,  
14          30 V.S.A. § 8010(d)(1)–(9). For the purpose of this report, the plan used under  
15          30 V.S.A. § 8010(d)(2) shall be the Comprehensive Energy Plan issued in  
16          2011.

17          (c) Workshops. Beginning in October 2014, the Board shall convene one  
18          or more workshops to solicit the input of potentially affected parties and the  
19          public on the design of a revised net metering program. The Board shall  
20          provide notice of the workshops on its website and directly to the Department,  
21          Vermont's retail electricity providers, Renewable Energy Vermont, business

1 organizations such as Associated Industries of Vermont, environmental and  
2 consumer advocacy organizations such as the Vermont Natural Resources  
3 Council and the Vermont Public Interest Research Group, and to any other  
4 person that requests direct notice or to whom the Board may consider direct  
5 notice appropriate. The Board also shall provide an opportunity for  
6 submission of written comments, which the notice shall include.

7 (d) Rulemaking. On completion of the workshops, the Board shall  
8 commence a rulemaking proceeding for a revised net metering program in  
9 accordance with the following:

10 (1) 30 V.S.A. § 219a shall not apply to the rules to be adopted under  
11 this section.

12 (2) The provisions of Secs. 3 (definitions; 30 V.S.A. § 8002) and  
13 4 (self-generation and net metering; 30 V.S.A. § 8010) shall apply to the rules  
14 to be adopted under this section. Within the requirements of these provisions,  
15 the Board may consider and adopt approaches to net metering that are  
16 alternative to those currently employed in the State and that ensure a  
17 sustainable net metering program that achieves, in a balanced and equitable  
18 manner, the goals and policies identified in Sec. 4 in 30 V.S.A. § 8010(d)(2).

19 (3) In adopting rules under this section, the Board shall consider the  
20 DPS report under subsection (b) of this section and the comments received  
21 during the workshop process under subsection (c) of this section.

1           (4) On or before January 1, 2016, the Board, having filed proposed rules  
2           and completed the public hearing and comment process under the Vermont  
3           Administrative Procedure Act, shall submit to the House Committees on  
4           Commerce and on Natural Resources and Energy and the Senate Committees  
5           on Finance and on Natural Resources and Energy the text of the final proposed  
6           rules it intends to file with the Secretary of State and the Legislative  
7           Committee on Administrative Rules pursuant to 3 V.S.A. § 841. With this rule  
8           text, the Board shall submit a report summarizing the public comment  
9           received, providing the Board's evaluation of the effectiveness of the existing  
10           net metering program, describing the alternative approaches to net metering  
11           that it considered, and summarizing the rule text.

12           (5) On or before July 1, 2016, the Board shall finally adopt rules for a  
13           revised net metering program to take effect on January 1, 2017.

14           (A) If the Board is unable to finally adopt the rules by July 1, 2016,  
15           the Board may issue an order by that date establishing a revised net metering  
16           program to take effect on January 1, 2017, if that order is followed by final  
17           adoption of rules for this program within a reasonable period. The provisions  
18           of subdivisions (d)(1) through (3) of this subsection shall apply to this order.

19           (B) Rules finally adopted under this subdivision (5) shall not be  
20           subject to the requirement of 3 V.S.A. § 843(c) to finally adopt rules within  
21           eight months of initial filing.

1       (e) Following the Board's final adoption of rules under this section or  
2       issuance of an order under subdivision (d)(5)(A) of this section, whichever is  
3       earlier, each retail electricity provider within the meaning of 30 V.S.A. § 8002  
4       shall, on a schedule directed by the Board, submit revised rate schedules that  
5       comply with those rules, for effect on January 1, 2017. The provisions of  
6       Secs. 3 (definitions; 30 V.S.A. § 8001) and 4 (self-generation and net  
7       metering; 30 V.S.A. § 8010) shall apply to the rate schedules to be adopted  
8       under this section.

9                                   \* \* \* Technical Corrections \* \* \*

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

11       (a) The same application form, rules, and procedures that the Board applies  
12       to net metering systems of 150 kilowatts (kW) or less under sections ~~219a and~~  
13       248 and 8010 of this title shall apply to the review under section 248 of this  
14       title of any renewable energy plant with a plant capacity of 150 kW or less and  
15       to the interconnection of such a plant with the system of a Vermont retail  
16       electricity provider. This requirement includes any waivers of criteria under  
17       section 248 of this title made pursuant to section ~~219a~~ 8010 of this title.

18       Sec. 7. 30 V.S.A. § 8104(b) is amended to read:

19       (b) If a Vermont village green renewable project includes district power  
20       and does not qualify or opt for treatment as a net metering system under  
21       section ~~219a~~ 8010 of this title:

1 \* \* \*

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

3 (b) ~~For the purposes of~~ In this section, alternate energy sources includes  
4 any plant, structure, or facility used for the generation of electricity or  
5 production of energy used on the premises for private, domestic, or agricultural  
6 purposes, no part of which may be for sale or exchange to the public. The term  
7 shall include, ~~but not be limited to~~ grist mills, windmills, facilities for the  
8 collection of solar energy or the conversion of organic matter to methane, net  
9 metering systems regulated by the Public Service Board under 30 V.S.A.  
10 § ~~219a~~ 8010, and all component parts thereof including land upon which the  
11 facility is located, not to exceed one-half acre.

12 Sec. 9. 32 V.S.A. § 9741(46) is amended to read:

13 (46) Tangible personal property to be incorporated into:

14 (A) a net metering system as defined in 30 V.S.A. § ~~219a~~ 8002;

15 (B) a home or business energy system on a premises not connected to  
16 the electric distribution system of a utility regulated under Title 30 and that  
17 otherwise meets the requirements of 30 V.S.A. § ~~219a(a)(3)(A), (C), (D),~~  
18 ~~and (E)~~ § 8002(16)(A), (C), and (D); or

19 (C) a hot water heating system that converts solar energy into thermal  
20 energy used to heat water, but limited to that property directly necessary for  
21 and used to capture, convert, or store solar energy for this purpose.





1 complies with the amended subdivisions. Notwithstanding 30 V.S.A.  
2 § 219a(h)(1)(K)(I) and the effective date of Sec. 1, this proposed modification  
3 shall take effect on and no earlier than January 1, 2015.

4 (3) In the alternative to filing a proposed rate schedule to implement the  
5 amended subdivisions, an electric company that meets the renewable energy  
6 achievement requirements of 30 V.S.A. § 219a(o)(1) may, within 90 days of  
7 passage, file with the Board a proposed rate schedule to implement an  
8 alternative net metering program in accordance with 30 V.S.A. § 219a(o)(2).

9 (c) Sec. 2 (repeal of 30 V.S.A. §§ 219a, 219b) shall take effect on  
10 January 1, 2017. However, nothing in this section or in the repeal of 30 V.S.A.  
11 § 219a or 219b shall affect the validity or terms of a certificate of public good  
12 issued for a net metering system prior to that date. A solar net metering system  
13 receiving a mandatory incentive under 30 V.S.A. § 219a(h)(1)(K) shall  
14 continue to receive that incentive through the end of the 10-year period set  
15 forth in that subdivision.

16 (d) Secs. 3 (definitions; 30 V.S.A. § 8002) and 4 (self-generation and net  
17 metering; 30 V.S.A. § 8010) shall take effect on January 1, 2017, except that  
18 on passage of this act, these sections shall apply to the reports to be submitted  
19 and the rules and rate schedules to be adopted under Sec. 5 and the order that  
20 may be issued under Sec. 5(d)(5)(A).

1       (e) Secs. 6 (application form), 7 (Vermont village green renewable project),  
2       8 (alternate energy sources), and 9 (tangible personal property) shall take effect  
3       on January 1, 2017.

4       (f) 30 V.S.A. § 219a and rules adopted under that section shall govern  
5       applications for net metering systems filed prior to January 1, 2017.

6       (g) 30 V.S.A. § 8010 and rules adopted under that section shall govern  
7       applications for net metering systems filed on and after January 1, 2017.