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H.289

Introduced by Representatives Sheldon of Middlebury and Sibilias of Dover

Referred to Committee on

Date:

Subject: Public service; energy; renewable energy programs; Renewable
Energy Standard

Statement of purpose of bill as introduced: This bill proposes to increase the
amount of total renewable energy required pursuant to the Renewable Energy
Standard.

An act relating to the Renewable Energy Standard

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

~~Sec. 1. 30 V.S.A. § 8005 is amended to read:~~

~~§ 8005. RES CATEGORIES~~

~~(a) Categories. This section specifies three categories of required resources
to meet the requirements of the RES established in section 8004 of this title:
total renewable energy, distributed renewable generation, and energy
transformation.~~

~~(1) Total renewable energy.~~

1 ~~(B) Required amounts. The amounts of total renewable energy~~
2 required by this subsection shall be ~~55~~ 63 percent of each retail electricity
3 provider's annual retail electric sales during the year beginning on January 1,
4 ~~2017~~ 2023, increasing by an additional ~~four~~ 10.6 percent each ~~third~~ second
5 January 1 thereafter, until reaching ~~75~~ 100 percent on and after January 1,
6 ~~2032~~ 2030.

7 * * *

8 Sec. 2. EFFECTIVE DATE

9 ~~This act shall take effect on July 1, 2023.~~

Sec. 1. 30 V.S.A. § 218d is amended to read:

*§ 218d. ALTERNATIVE REGULATION OF ELECTRIC AND NATURAL
GAS COMPANIES*

* * *

*(n)(1) Notwithstanding subsection (a) of this section and sections 218, 225,
226, 227, and 229 of this title, a municipal company formed under local
charter or under chapter 79 of this title and an electric cooperative formed
under chapter 81 of this title shall be authorized to change its rates for service
to its customers if the rate change is:*

(A) applied to all customers equally;

(B) not more than ~~two~~ three percent during any twelve-month period;

(C) cumulatively not more than 10 percent from the rates last approved by the Commission; and

(D) not going to take effect more than 10 years from the last approval for a rate change from the Commission.

** * **

Sec. 2. 30 V.S.A. § 8002 is amended to read:

§ 8002. DEFINITIONS

As used in this chapter:

** * **

(8) “Existing renewable energy” means renewable energy produced by a plant that came into service prior to or on ~~June 30, 2015~~ December 31, 2009.

** * **

(10) “Group net metering system” means a net metering system serving more than one customer, or a single customer with multiple electric meters, located within the service area of the same retail electricity provider. Various buildings owned by municipalities, including water and wastewater districts, fire districts, villages, school districts, and towns, may constitute a group net metering system. A union or district school facility may be considered in the same group net metering system with buildings of its member schools that are located within the service area of the same retail electricity provider. A system that files a complete application for a certificate of public good on or after

January 1, 2026 shall not qualify for group net metering, unless the plant will be located on the same parcel, or a parcel adjacent to, the parcel where the energy is utilized.

* * *

(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~~ Using a single, non-demand meter or ~~such~~ other meter that would otherwise be applicable to the customer’s usage but for the use of net metering; ~~or.~~

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

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

(A) is of ~~no~~ not more than 500 kW capacity;

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

(C) is intended primarily to offset the customer’s own electricity requirements and does not primarily supply electricity to electric vehicle supply equipment, as defined in section 201 of this title, for the resale of

electricity to the public by the kWh or for other retail sales to the public, including those based in whole or in part on a flat fee per charging session or a time-based fee for occupying a parking space while using electric vehicle supply equipment; ~~and~~

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

(ii) is a qualified micro-combined heat and power system of 20 kW or fewer that meets the definition of combined heat and power in subsection 8015(b) of this title and uses any fuel source that meets air quality standards; and

(E)(i) for a system that files a complete application for a certificate of public good after December 31, 2024, except for systems as provided for in subdivision (ii) of this subdivision (E), generates energy that will be used on the same parcel as, or a parcel adjacent to, the parcel where the plant is located;

(ii) for a system that files a complete application for a certificate of public good after December 31, 2025, if the system serves a multifamily building containing qualified rental units serving low-income tenants, as defined under 32 V.S.A. § 5404a(a)(6), generates energy that will be used on the same parcel as, or a parcel adjacent to, the parcel where the plant is located; and

(iii) for purposes of this subdivisions (10) and (16), two parcels shall be adjacent if they share a property boundary or are adjacent and separated only by a river, stream, railroad line, private road, public highway, or similar intervening landform.

(17) “New renewable energy” means renewable energy capable of delivery in New England and produced by a specific and identifiable plant coming into service on or after ~~June 30, 2015~~ January 1, 2010, but excluding energy generated by a hydroelectric generation plant with a capacity of 200 MW or greater.

(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 on or after ~~June 30, 2015~~ January 1, 2010.

(B) Except as provided in subdivision 8005(c)(3) of this title, “New new renewable energy” also ~~may include~~ includes 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~~ a historical baseline established by calculating the average output of that plant for the 10-year period that ended ~~June 30, 2015~~ January 1, 2010. 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.

* * *

(31) “Load” means the total amount of electricity utilized by a retail electricity provider over a 12-month calendar year period, including its retail electric sales, any use by the provider itself not included in retail sales, and transmission and distribution line losses associated with and allocated to the retail electricity provider.

(32) “Load growth” means the increase above a baseline year in a retail electricity provider’s load.

Sec. 3. 30 V.S.A. § 8004 is amended to read:

§ 8004. SALES OF ELECTRIC ENERGY; RENEWABLE ENERGY

STANDARD (RES)

* * *

(d) Alternative compliance payment. In lieu of purchasing renewable energy or tradeable renewable energy credits or supporting energy transformation projects to satisfy the requirements of this section and section 8005 of this title, a retail electricity provider in this State may pay to the Vermont Clean Energy Development Fund established under section 8015 of this title an alternative compliance payment at the applicable rate set forth in section 8005. The administrator of the Vermont Clean Energy Development

Fund shall use the payment from a retail electricity provider electing to make an alternative compliance payment to satisfy its obligations under subdivisions 8005(a)(1), 8005(a)(2), 8005(a)(4), and 8005(a)(5) of this title for the development of renewable energy plants that are intended to serve and benefit customers with low income of the retail electricity provider that has made the payment. Such plants shall be located within the provider's service territory, if feasible. In the event that such a payment is insufficient to enable the development of a renewable energy plant, the administrator may use the payment for other initiatives allowed under section 8015 of this title that will benefit customers with low income of the retail electricity provider that has made the payment. As used in this subsection (d), "customer with low income" means a person purchasing energy from a retail electricity provider and with an income that is less than or equal to 80 percent of area median income, adjusted for family size, as published annually by the U.S. Department of Housing and Urban Development.

* * *

Sec. 4. 30 V.S.A. § 8005 is amended to read:

§ 8005. RES CATEGORIES

(a) Categories. This section specifies ~~three~~ five categories of required resources to meet the requirements of the RES established in section 8004 of this title: total renewable energy, distributed renewable generation, ~~and~~

energy transformation, new renewable energy, and load growth renewable energy. In order to support progress toward Vermont's climate goals and requirements, a provider may, but shall not be required to, exceed the statutorily required amounts under this section.

(1) Total renewable energy.

* * *

(B) Required amounts. The amounts of total renewable energy required by this subsection (a) shall be ~~55~~ 63 percent of each retail electricity provider's annual ~~retail electric sales~~ load during the year beginning on January 1, ~~2017~~ 2025, increasing by at least an additional four percent each third January 1 thereafter, until reaching ~~75~~ 100 percent:

(i) on and after January 1, ~~2032~~ 2035 for a retail electricity provider who serves a single customer that takes service at 115 kilovolts and each municipal retail electricity provider formed under local charter or chapter 79 of this title; and

(ii) on and after January 1, 2030, for all other retail electricity providers.

(C) Relationship to other categories. Distributed renewable generation used to meet the requirements of subdivision (2) of this subsection (a), new renewable energy under subdivision (4) of this subsection (a), and load growth renewable generation under subdivision (5) of this subsection (a)

shall also count toward the requirements of this subdivision. However, an energy transformation project under subdivision (3) of this subsection (a) shall not count toward the requirements of this subdivision.

(D) Municipal providers; petition. On petition by a provider that is a municipal electric utility serving not more than ~~6,000~~ 7,000 customers, the Commission may reduce the provider's required amount under this subdivision (1) for a period of up to three years. The Commission may approve one such period only for a municipal provider. The Commission may reduce this required amount if it finds that:

** * **

(2) Distributed renewable generation.

** * **

(B) Definition. As used in this section, "distributed renewable generation" means ~~one of the following:~~

(i) ~~a~~ A renewable energy plant that is ~~new renewable energy;~~ has a plant capacity of five MW or less; ~~and.~~

(ii) Is one of the following:

(I) new renewable energy;

(II) a hydroelectric renewable energy plant that is, on or before January 1, 2024, owned and operated by a municipal electric utility formed under local charter or chapter 79 of this title, as of January 1, 2020, including

future plant modifications that do not cause the capacity of such a plant to exceed five MW; or

(III) a hydroelectric renewable energy plant that is, on or before January 1, 2024, owned and operated by a retail electricity provider that is not a municipal electric utility, provided such plant is and continues to be certified by the Low Impact Hydropower Institute. Plants owned by such utilities on or before January 1, 2024, which are later certified by the Low Impact Hydropower Institute, and continue to be certified shall be eligible under this subdivision (2) from the date of certification. Any future modifications that do not cause the capacity of such a plant to exceed five MW shall also be eligible under this subdivision (2); and

(iii) Is one of the following:

(I) is directly connected to the subtransmission or distribution system of a Vermont retail electricity provider; ~~or~~

(II) is directly connected to the transmission system of an electric company required to submit a Transmission System Plan under subsection 218c(d) of this title, if the plant is part of a plan approved by the Commission to avoid or defer a transmission system improvement needed to address a transmission system reliability deficiency identified and analyzed in that Plan; or

~~(ii)(III)~~ is a net metering system approved under the former section 219a or under section 8010 of this title if the system is new renewable energy and the interconnecting retail electricity provider owns and retires the system's environmental attributes.

(C) Required amounts. The required amounts of distributed renewable generation shall be ~~one~~ 5.8 percent of each retail electricity provider's annual ~~retail electric sales~~ load during the year beginning on January 1, ~~2017, increasing by an additional three fifths of a percent~~ 2025, increasing by at least an additional:

(i) one and a half percent each subsequent January 1 until reaching ~~10~~ 20 percent on and after January 1, 2035 for a retail electricity provider who serves a single customer that takes service at 115 kilovolts and each municipal electric utility formed under local charter or chapter 79 of this title; and

(ii) two percent each subsequent January 1 until reaching 20 percent on and after January 1, 2032 for all other retail electricity providers.

(D) Distributed generation greater than five MW. On petition of a retail electricity provider, the Commission may for a given year allow the provider to employ energy with environmental attributes attached or tradeable renewable energy credits from a renewable energy plant with a plant capacity greater than five MW to satisfy the distributed renewable generation

requirement if the plant would qualify as distributed renewable generation but for its plant capacity ~~and~~ when the provider demonstrates either that:

(i) it is unable during that a given year to meet the requirement solely with qualifying renewable energy plants of five MW or less. To demonstrate this inability, the provider shall issue one or more requests for proposals, and show that it is unable to obtain sufficient ownership of environmental attributes to meet its required amount under this subdivision (2) for that year from:

(i)(I) the construction and interconnection to its system of distributed renewable generation that is consistent with its approved least-cost integrated resource plan under section 218c of this title at a cost less than or equal to the sum of the applicable alternative compliance payment rate and the applicable rates published by the Department under the Commission's rules implementing subdivision 209(a)(8) of this title; and

(i)(II) purchase of tradeable renewable energy credits for distributed renewable generation at a cost that is less than the applicable alternative compliance rate; or

(ii) it has only one retail electricity customer who takes service at 115 kilovolts on property owned or controlled by the customer as of January 1, 2024. Such a provider may seek leave under this subdivision (D) for a period greater than a given year.

(3) Energy transformation.

* * *

(B) Required amounts. For the energy transformation category, the required amounts shall be ~~two~~ 7.33 percent of each retail electricity provider's annual ~~retail-electric-sales~~ load during the year beginning January 1, ~~2017~~ 2025, increasing by at least an additional two-thirds of a percent each subsequent January 1 until reaching 12 percent on and after January 1, 2032. However, in the case of a provider that is a municipal electric utility serving not more than ~~6,000~~ 7,000 customers, the required amount shall be ~~two~~ six percent of the provider's ~~annual retail-sales~~ load beginning on January 1, ~~2019~~ 2025, increasing by an additional two-thirds of a percent each subsequent January 1 until reaching 10 and two-thirds percent on and after January 1, 2032. Prior to January 1, 2019, such a municipal electric utility voluntarily may engage in one or more energy transformation projects in accordance with this subdivision (3). In order to support progress toward Vermont's climate goals and requirements, a retail electricity provider may, but shall not be required to, exceed the statutorily required amounts, up to and including procuring all available energy transformation category projects and measures available at or below the relevant alternative compliance payment rate.

* * *

(4) New renewable energy.

(A) Purpose; establishment. This subdivision (4) establishes a new regional renewable energy category for the RES. This category encourages the use of new renewable generation to support the reliability of the regional ISO-NE electric system. To satisfy this requirement, a provider shall use new renewable energy with environmental attributes attached or any class of tradeable renewable energy credits generated by any renewable energy plant coming into service after January 1, 2010 whose energy is capable of delivery in New England.

(B) Required amounts and exemption. A retail electricity provider that is 100 percent renewable under subdivision (b)(1) of this section shall be exempt from any requirement for new renewable energy under this subdivision (4). For all other retail electricity providers, the amount of new renewable energy required by this subsection (a) shall be:

(i) For a retail electricity provider with 75,000 or more customers, the following percentages of each provider's annual load:

(I) Four percent beginning on January 1, 2027.

(II) 10 percent on and after January 1, 2030.

(III) 15 percent on and after January 1, 2032.

(IV) 20 percent on and after January 1, 2035. If the Commission determines in the report required under subdivision 8005b(b)(4)

of this title that it is reasonable to expect that there will be sufficient new regional renewable resources available for a provider to meet its requirement under this subdivision (4) at or below the alternative compliance payment rate established in subdivision (6)(C) of this subsection (a) during a year beginning prior to January 1, 2035, the Commission shall require that provider to meet its requirement under this subdivision (4) in the earliest year the Commission determines it can, provided that the provider shall not be required to meet that requirement prior to the year starting January 1, 2032.

(ii) For a retail electricity provider with less than 75,000 customers, the following percentages of each provider's annual load:

(I) five percent beginning on January 1, 2030; and

(II) 10 percent on and after January 1, 2035.

(C) Relationship to other categories. Distributed renewable generation used to meet the requirements of subdivision (2) of this subsection (a) shall not also count toward the requirements of this subdivision (4). An energy transformation project under subdivision (3) of this subsection (a) shall not count toward the requirements of this subdivision (4).

(D) Single-customer provider. If a retail electricity provider with one customer taking service at 115 kilovolts has not satisfied the distributed renewable generation requirements of subdivision (2) of this subsection (a) on property owned or controlled by the customer as of January 1, 2024, and the

cost of additional distributed renewable generation would be at or above the alternative compliance payment rate for the distributed renewable generation category or meeting that requirement with new renewable energy on its property would be economically infeasible, that provider may satisfy the requirements of subdivision (2) of this subsection (a) with an equivalent amount of increased new renewable energy as defined in this subdivision (4).

(5) Load growth; retail electricity providers; 100 percent renewable.

(A) For any retail electricity provider that is 100 percent renewable under subdivision (b)(1) of this section, that provider shall meet its load growth above its 2024 calendar year load, with at least the following percentages of new renewable energy or any renewable energy eligible under subdivision (2) of this subsection (a):

(i) 50 percent beginning on January 1, 2025;

(ii) 75 percent on and after January 1, 2026;

(iii) 90 percent on and after January 1, 2027;

(iv) 100 percent on and after January 1, 2028 until the provider's annual load exceeds 135 percent of the provider's 2022 annual load, at which point the provider shall meet its additional load growth with at least 50 percent new renewable energy until 2035; and

(v) 75 percent on and after January 1, 2035.

(B) For a retail electricity provider with 75,000 or more customers, and for each provider, excluding any provider that is 100 percent renewable under subdivision (b)(1) of this section, that is a member of the Vermont Public Power Supply Authority or its successor, that provider shall meet its load growth above its 2035 calendar year load with 100 percent new renewable energy, which shall include the required amounts of distributed renewable generation as applicable to the provider under subdivision (2) of this subsection (a).

(C) On petition of a retail electricity provider subject to the load growth requirements in subdivision (A) of this subdivision (a)(5), the Commission may for a given year allow the provider to employ existing renewable energy with environmental attributes attached or tradeable renewable energy credits from an existing renewable energy plant to satisfy part or all of the load growth requirement if the provider demonstrates that, after making every reasonable effort, it is unable during that year to meet the requirement with energy with environmental attributes attached or tradeable renewable energy credits from qualifying new renewable energy plants.

(i) To demonstrate this inability, the provider shall at a minimum timely issue one or more subsequent requests for proposals or transactions and any additional solicitations as necessary to show that it is unable to obtain sufficient ownership of environmental attributes from new renewable energy to

meet its required amount under this subdivision at a cost that is less than or equal to the applicable alternative compliance rate for the load growth category.

(ii) In the event the provider is able to meet a portion, but not all, of its load growth requirement in a calendar year with attributes from new renewable energy at a cost that is less than or equal to the applicable alternative compliance rate for the load growth category, the Commission shall allow the provider to use existing renewables only for that portion of its requirement that it is unable to meet with new renewable energy.

(iii) In the event that the provider is unable to meet its load growth requirement with a combination of attributes from new renewable energy and existing renewable energy at a cost that is less than or equal to the alternative compliance rate laid out in subdivision (6) in this subsection (a), the Commission shall require the provider to meet the remainder of its requirement under this subdivision (5) by paying the alternative compliance rate for the load growth category.

(D) Notwithstanding any provision of law to the contrary, any additional energy available to a retail electricity provider that is 100 percent renewable under subdivision (b)(1) of this section under agreements approved or authorized by the Public Utility Commission in its April 15, 2011 Order issued in Docket No. 7670, Petition of twenty Vermont utilities and Vermont

Public Power Supply Authority requesting authorization for the purchase of 218 MW to 225 MW of electricity shall also be eligible to meet the requirements laid out in subdivision (A) of this subdivision (a)(5), provided that such additional energy does not exceed two MW, and further provided that a retail electricity provider exercises its right to such energy on or before January 1, 2028 and for no longer than through December 31, 2038.

(6) Alternative compliance rates.

(A) The alternative compliance payment rates for the categories established by subdivisions (1)–(3) of this subsection (a) shall be:

(i) total renewable energy requirement — \$0.01 per kWh; and

(ii) distributed renewable generation and energy transformation requirements — \$0.06 per kWh.

(B) The Commission shall adjust these rates for inflation annually commencing January 1, 2018, using the CPI.

(C) For the new renewable energy and load growth requirements, it shall be \$0.04 per kWh annually commencing on January 1, 2025, with calculations for inflation beginning on January 1, 2023.

(D) The Commission shall have the authority to adjust the alternative compliance payment rate for the new renewable energy and load growth requirements differently than the rate of inflation in order to minimize discrepancies between this rate and alternative compliance payments for

similar classes in other New England states and to increase the likelihood that Vermont retail electricity providers cost-effectively achieve these requirements, if it determines doing so is consistent with State energy policy under section 202a of this title.

(b) *Reduced amounts; providers; 100 percent renewable.*

(1) *The provisions of this subsection shall apply to a retail electricity provider that:*

(A) *as of January 1, 2015, was entitled, through contract, ownership of energy produced by its own generation plants, or both, to an amount of renewable energy equal to or more than 100 percent of its anticipated total retail electric sales in 2017, regardless of whether the provider owned the environmental attributes of that renewable energy; and*

(B) *annually each July 1 commencing in 2018, owns and has retired tradeable renewable energy credits monitored and traded on the New England Generation Information System or otherwise approved by the Commission equivalent to 100 percent of the provider's total retail sales of electricity for the previous calendar year.*

* * *

(c) *Biomass.*

(1) *Distributed renewable generation that employs biomass to produce electricity shall be eligible to count toward a provider's distributed renewable*

generation or energy transformation requirement only if the plant satisfies the requirements of subdivision (3) of this subsection and produces both electricity and thermal energy from the same biomass fuel and the majority of the energy recovered from the plant is thermal energy.

(2) Distributed renewable generation and energy transformation projects that employ forest biomass to produce energy shall comply with renewability standards adopted by the Commissioner of Forests, Parks and Recreation under 10 V.S.A. § 2751. Energy transformation projects that use wood feedstock, except for noncommercial applications, that are eligible at the time of project commissioning to meet the renewability standards adopted by the Commissioner of Forests, Parks and Recreation do not lose eligibility due to a subsequent change in the renewability standards after the project commissioning date.

(3) No new wood biomass electricity generation facility or wood biomass combined heat and power facility coming into service after January 1, 2023 shall be eligible to satisfy any requirements of this section and section 8004 of this title unless that facility achieves 60 percent overall efficiency and at least a 50 percent net lifecycle greenhouse gas emissions reduction relative to the lifecycle emissions from the combined operation of a new combined-cycle natural gas plant using the most efficient commercially available technology. Any energy generation using wood feedstock from an existing

wood biomass electric generation facility placed in service prior to January 1, 2023 remains eligible to satisfy any requirements of this section and section 8004 of this title. Changes to wood biomass electric facilities that were placed in service prior to January 1, 2023, including converting to a combined heat and power facility, adding or modifying a district energy system, replacing electric generation equipment, or repowering the facility with updated or different electric generation technologies, do not change the in service date for the facility, or affect its eligibility to satisfy the requirements of this section and section 8004 of this title, or qualify it as new renewable energy.

(d) Hydropower. A hydroelectric renewable energy plant, that is not owned by a retail electricity provider, shall be eligible to satisfy the distributed renewable generation or energy transformation requirement only if, in addition to meeting the definition of distributed renewable generation, the plant:

(1) is and continues to be certified by the Low-impact Hydropower Institute; or

(2) after January 1, 1987, received a water quality certification pursuant to 33 U.S.C. § 1341 from the Agency of Natural Resources.

(e) Intent. Nothing in this section and section 8004 of this title is intended to relieve, modify, or in any manner affect a renewable energy plant's on-going obligation to not have an undue adverse effect on air and water purity, the

natural environment and the use of natural resources, and to comply with required environmental laws and rules.

Sec. 5. 30 V.S.A. § 8006a is amended to read:

§ 8006a. GREENHOUSE GAS REDUCTION CREDITS

(a) *Standard offer adjustment.* In accordance with this section, greenhouse gas reduction credits generated by an eligible ratepayer shall result in an adjustment of the standard offer under subdivision 8005a(c)(1) of this title (cumulative capacity; pace) or may be utilized by a retail electricity provider that serves a single customer that takes service at 115 kilovolts to meet the energy transformation requirements under subdivision 8005(a)(3)(D) of this title. For the purpose of adjusting the standard offer under subdivision 8005a(c)(1) of this title or energy transformation requirements under subdivision 8005(a)(3)(D) of this title, the amount of a year's greenhouse gas reduction credits shall be the lesser of the following:

(1) The amount of greenhouse gas reduction credits created by ~~the~~ an eligible ratepayers ratepayer served by all-providers an eligible provider.

(2) The ~~providers'~~ eligible provider's annual ~~retail-electric sales~~ load during that year to those eligible ratepayers creating greenhouse gas reduction credits.

(b) *Definitions.* ~~As~~ As used in this section:

(1) *“Eligible ratepayer” means a customer of a Vermont retail electricity provider who takes service at 115 kilovolts and has demonstrated to the Commission that it has a comprehensive energy and environmental management program. Provision of the customer’s certification issued under standard 14001 (environmental management systems) of the International Organization for Standardization (ISO) shall constitute such a demonstration.*

(2) *“Eligible provider” means a Vermont retail electricity provider who serves a single customer that takes service at 115 kilovolts.*

(3) *“Eligible reduction” means a reduction in non-energy-related greenhouse gas emissions from manufacturing processes at an in-state facility of an eligible ratepayer, provided that each of the following applies:*

(A) *The reduction results from a specific project undertaken by the eligible ratepayer at the in-state facility after January 1, ~~2012~~ 2023.*

(B) *The specific project reduces or avoids greenhouse gas emissions above and beyond any reductions of such emissions required by federal and State statutes and rules.*

(C) *The reductions are quantifiable and verified by an independent third party as approved by the Agency of Natural Resources and the Commission. Such independent third parties shall be certified by a body accredited by the American National Standards Institute (ANSI) as having a certification program that meets the ISO standards applicable to verification*

and validation of greenhouse gas assertions. The independent third party shall use methodologies specified under 40 C.F.R. part 98 and U.S. Environmental Protection Agency greenhouse gas emissions factors and global warming potential figures to quantify and verify reductions in all cases where those factors and figures are available.

(3)(4) “Greenhouse gas” shall be as defined under has the same meaning as in 10 V.S.A. § 552.

(4)(5) “Greenhouse gas reduction credit” means a credit for eligible reductions, calculated in accordance with subsection (c) of this section and expressed as a kWh credit eligible under subdivision 8005a(c)(1) of this title, or as a credit eligible under subdivision 8005(a)(3)(D) of this title.

(c) Calculation. Greenhouse gas reduction credits shall be calculated as follows:

(1) Eligible reductions shall be quantified in metric tons of CO2 equivalent, in accordance with the methodologies specified under 40 C.F.R. part 98, and using U.S. Environmental Protection Agency greenhouse gas emissions factors and global warming potential figures, and may shall be counted annually for the life of the specific project that resulted in the reduction. A project that converts a gas with a high global warming potential into a gas with relatively lower global warming potential shall be eligible if the conversion produces a CO2 equivalent reduction on an annual basis.

(2) Metric tons of CO₂ equivalent quantified under subdivision (1) of this subsection shall be converted into units of energy through calculation of the equivalent number of kWh of generation by renewable energy plants, other than biomass, that would be required to achieve the same level of greenhouse gas emission reduction through the displacement of market power purchases. For the purpose of this subdivision, the value of the avoided greenhouse gas emissions shall be based on the aggregate greenhouse gas emission characteristics of system power in the regional transmission area overseen by the Independent System Operator of New England (ISO-NE).

(d) Reporting. An eligible ~~ratepayer~~ provider shall report to the Commission annually on each specific project undertaken by an eligible ratepayer to create eligible reductions. The Commission shall specify the required contents of such reports, which shall be publicly available.

~~(e) Savings.—A provider shall pass on savings that it realizes through greenhouse gas reduction credits proportionally to the eligible ratepayers generating the credits.~~

Sec. 6. 30 V.S.A. § 8010 is amended to read:

§ 8010. SELF-GENERATION AND NET METERING

** * **

(c) In accordance with this section, the Commission 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:

** * **

(E) ~~ensures that all customers who want to participate in net metering have the opportunity to do so; [Repealed.]~~

** * **

(H) allows a customer to retain ownership of the environmental attributes of energy generated by the customer's net metering system and of any associated tradeable renewable energy credits or to transfer those attributes and credits to the interconnecting retail provider, and:

(i) if the customer retains the attributes, reduces the value of the credit provided under this section for electricity generated by the customer's net metering system by an appropriate amount; ~~and~~

(ii) if the customer transfers the attributes to the interconnecting provider, requires the provider to retain them for application toward compliance with sections 8004 and 8005 of this title unless the provider has fewer than 75,000 customers, in which case the attributes do not need to be applied toward compliance obligations under sections 8004 and 8005 of this title; and

(iii) if a retail electricity provider that is 100 percent renewable under subdivision 8005(b)(1) of this title does not retire the transferred attributes under sections 8004 and 8005 of this title, requires that the provider apply an equivalent amount of attributes from distributed renewable generation that qualifies under subdivision 8005(a)(2) of this title toward its compliance obligations under sections 8004 and 8005 of this title.

(2) The rules shall include provisions that govern:

* * *

(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.

~~(i) When assigning an amount of credit under this subdivision (F), the Commission shall consider making multiple lengths of time available over which a customer may take a credit and differentiating the amount according to the length of time chosen. For example, a monthly credit amount may be higher if taken over 10 years and lower if taken over 20 years. Factors relevant to this consideration shall include the customer's ability to finance the~~

~~net metering system, the cost of that financing, and the net present value to all ratepayers of the net metering program. [Repealed.]~~

~~(ii) In As used in this subdivision (ii), “existing net metering system” means a net metering system for which a complete application was filed before January 1, 2017.~~

~~(I) Commencing 10 years from the date on which an existing net metering system was installed, the Commission may apply to the system the same rules governing bill credits and the use of those credits on the customer’s bill that it applies to net metering systems for which applications were filed on or after January 1, 2017, other than any adjustments related to siting and tradeable renewable energy credits.~~

~~(II) The amount of excess generation, as defined in the Commission’s rules, from existing net metering systems, may be applied to reduce the provider’s statutory requirements under:~~

~~(aa) subdivision 8005(a)(2) of this title for a provider with fewer than 75,000 customers, not including one that is 100 percent renewable under subdivision 8005(b)(1) of this title, and~~

~~(bb) subdivision 8005(a)(5) of this title for a provider that is 100 percent renewable under subdivision 8005(b)(1) of this title.~~

(III) This subdivision (ii) shall apply to existing net metering systems notwithstanding any contrary provision of 1 V.S.A. § 214 and 2014 Acts and Resolves No. 99, Sec. 10.

(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:

** * **

(C) The rules shall seek to simplify the application and review process as appropriate, ~~including simplifying the application and review process to encourage group net metering systems when the system is at least 50 percent owned by the customers who receive the bill credits for the electricity generated by the system.~~

** * **

(d) ~~Commencing in 2021 and biennially thereafter, the Department shall submit to the Commission its evaluation of the current state of net metering in Vermont, which shall be included within the Department's Annual Energy Report required under subsection 202b(e) of this title and shall also be submitted to the Committees listed under subdivision 202b(e)(2) of this title. The evaluation shall:~~

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

~~(2) after considering the goals and policies of this chapter, of 10 V.S.A. § 578 (greenhouse gas reduction), of section 202a (State energy policy) of this title, and of the Electrical Energy and Comprehensive Energy Plans under sections 202 and 202b of this title, recommend the future pace of net metering deployment statewide and within the service territory of each provider;~~

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

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

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

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

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

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

~~(9) examine and evaluate best practices for net metering identified from other states. [Repealed.]~~

* * *

Sec. 7. 30 V.S.A. § 202b is amended to read:

§ 202b. STATE COMPREHENSIVE ENERGY PLAN

* * *

~~(b) In developing or updating the Plan's recommendations, the Department of Public Service shall seek public comment by holding public hearings in at least five different geographic regions of the State on at least three different dates, and by providing and maintaining notice through publication once a week and at least seven days apart for two or more successive weeks in a newspaper or newspapers of general circulation in the regions where the hearings will be held, and by delivering notices to all licensed commercial radio and television stations with transmitting facilities within the State, plus Vermont Public Radio and Vermont Educational Television on the Department's website for at least 21 days before the day of each hearing and providing and maintaining reasonable notice consistent with best practices for~~

public engagement. The notice shall include an internet address where more information regarding the hearings may be viewed.

* * *

(e) The Commissioner of Public Service (Commissioner) shall file an annual report on progress in meeting the goals of the Plan. The report shall address each of the following sectors of energy consumption in the State: electricity, nonelectric fuels for thermal purposes, and transportation. In preparing the report, the Commissioner shall consult with the Secretaries of Administration, of Agriculture, Food and Markets, of Natural Resources, and of Transportation and the Commissioner of Buildings and General Services.

(1) The Commissioner shall file the report on or before January 15 of each year, commencing in 2019. The provisions of 2 V.S.A. § 20(d) shall not apply to this report.

(2) The Commissioner shall file the report with the House ~~Committees~~ Committee on Environment and Energy and Technology ~~and on Natural Resources, Fish, and Wildlife~~ and with the Senate Committees on Finance and on Natural Resources and Energy.

(3) For each sector, the report shall provide:

(A) In millions of British thermal units (MMBTUs) for the most recent calendar year for which data are available, the total amount of energy consumed, the amount of renewable energy consumed, and the percentage of

renewable energy consumed. For the electricity sector, the report shall also state the amounts in megawatt hours (MWH) of retail sales and load for Vermont as well as for each retail electricity provider and the Vermont and New England summer and winter peak electric demand, including the hour and day of peak demand.

(B) Projections of the energy reductions and shift to renewable energy expected to occur under existing policies, technologies, and markets. The most recent available data shall be used to inform these projections and shall be provided as a supplement to the data described in subdivision (A) of this subdivision (3).

(C) Recommendations of policies to further the renewable energy requirements and goals set forth in statute and the Plan, along with an evaluation of the relative cost-effectiveness and equity-related impacts of different policy approaches.

(4) The report shall include ~~a supplemental~~ an analysis setting forth how progress toward the goals of the Plan is supported by complementary work in avoiding or reducing energy consumption through efficiency and demand reduction. In this subdivision (4), “demand reduction” includes dispatchable measures, such as controlling appliances that consume energy, and nondispatchable measures, such as weatherization.

(5) *The report shall include recommendations on methods to enhance the process for planning, tracking, and reporting progress toward meeting statutory energy goals requirements and the goals of the Plan. Such recommendations may include the consolidation of one or more periodic reports filed by the Department or other State agencies relating to renewable energy, with proposals for amending the statutes relevant to those reports.*

(6) *The report shall include a summary of the following information for each sector:*

(A) major changes in relevant markets, technologies, and costs;

(B) average Vermont prices compared to the other New England states, based on the most recent available data; and

(C) significant Vermont and federal incentive programs that are relevant to one or more of the sectors.

(7) ~~The report shall include any activity that occurs under the Vermont Small Hydropower Assistance Program, the Vermont Village Green Program, and the Fuel Efficiency Fund.~~ the following information on progress toward meeting the Renewable Energy Standard (RES):

(A) An assessment of the costs and benefits of the RES based on the most current available data, including rate and economic impacts, customer savings, technology deployment, greenhouse gas emission reductions achieved both relative to 10 V.S.A § 578 requirements and societally, fuel price stability,

effect on transmission and distribution upgrade costs, and any recommended changes based on this assessment.

(i) For the most recent calendar year for which data is available, each retail electricity provider's retail sales and load, in MWh; required amounts of renewable energy for each category of the RES as set forth in section 8005 of this title; and amounts of renewable energy and tradeable renewable energy credits eligible to satisfy the requirements of sections 8004 and 8005 of this title actually owned by the Vermont retail electricity providers, expressed as a percentage of retail sales and total load.

(ii) The report shall summarize the energy transformation projects undertaken pursuant to section 8005 of this title, their costs and benefits, their avoided fossil fuel consumption and greenhouse gas emissions, and, if applicable, energy savings.

(iii) The report shall summarize statewide progress toward achieving each of the categories set forth in section 8005 of this title.

(iv) The report shall assess how costs and benefits of the RES are being distributed across State, to the extent possible given available data, by retail electricity service territory, municipality, and environmental justice focus populations, as defined by 3 V.S.A. § 6002. Such an assessment shall consider metrics to monitor affordability of electric rates.

(B) Projections, looking at least 10 years ahead, of the impacts of the RES.

(i) The Department shall consider at least three scenarios based on high, mid-range, and low energy price forecasts.

(ii) The Department shall provide an opportunity for public comment on the model during its development and make the model and associated documents available on the Department's website.

(iii) The Department shall project, for the State, the impact of the RES in each of the following areas: electric utility rates, total energy consumption, electric energy consumption, fossil fuel consumption, and greenhouse gas emissions. The report shall compare the amount or level in each of these areas with and without the program.

(C) An assessment of whether the requirements of the RES have been met to date, and any recommended changes needed to achieve those requirements.

(D) A summary of the activities of distributed renewable generation programs that support the achievement of the RES, including:

(i) Standard Offer Program under section 8005a of this title, including the number of plants participating in the Program, the prices paid by the Program, and the plant capacity and average annual energy generation of the participating plants. The report shall present this information as totals for

all participating plants and by category of renewable energy technology. The report also shall identify the number of applications received, the number of participating plants under contract, and the number of participating plants actually in service.

(ii) the net metering program, including: the current pace of net metering deployment, both statewide and within the service territory of each retail electricity provider; the ownership and transfer of the environmental attributes of energy generated by net metering systems and of any associated tradeable renewable energy credits; and any other information relevant to the costs and benefits of net metering.

(8) The report shall include any recommendations for statutory change related to sections 8004, 8005, 8005a, 8010, and 8011 of this title.

(9) For the report due in 2029, the Commission as shall issue a report on whether it is reasonable to expect that there will be sufficient new regional renewable resources available for a retail electricity provider with 75,000 or more customers to meet its requirement under subdivision 8005(a)(4)(B)(i)(IV) of this title at or below the alternative compliance payment rate for the new renewable generation category of section 8005 of this title during the year beginning on January 1, 2032, or during the years beginning on January 1, 2033 or January 1, 2034. The Commission shall not be required to issue this report in a contested case under 3 V.S.A. chapter 25 but shall conduct a

proceeding on the issue with opportunities for participation by the retail electricity providers, Vermont Public Power Supply Authority, Renewable Energy Vermont, and other members of the public. Notwithstanding the timeline specified in subdivision (e)(1) of this section, the Commission shall file this annual report on or before December 15, 2028.

(d) During the preparation of reports under this section, the Department shall provide an opportunity for the public to submit relevant information and recommendations.

Sec. 8. REPORT

On or before January 15, 2025, the Department of Public Service, after consultation with the Public Utility Commission, the Vermont Housing Finance Agency, Vermont Housing and Conservation Board, Evernorth, Green Mountain Power, Vermont Electric Cooperative, the Vermont Public Power Supply Authority, other electric utilities that wish to participate, and the Office of Racial Equity, shall submit a report to the House Committee on Environment and Energy and the Senate Committee on Natural Resources and Energy. The goal of this report is to develop a replacement program for group net metering to reduce operating costs, reduce resident energy burdens, and encourage electrification and decarbonization of buildings and enhance the financial capacity of housing providers to electrify the buildings developed or

rehabilitated and provide relief to residents of manufactured home communities from their energy burdens. This report shall:

(1) Discuss and prioritize recommendations for replacement programs based on how they would impact Vermont's impacted and frontline communities and identify opportunities for these communities to benefit from investments in renewables to adapt to climate and economic change within the framework of a replacement of the net-metering program.

(2) Discuss current programs electric utilities have in place to serve income-eligible customers, the number of participants in those programs, and their trends over time.

(3) Discuss progress affordable housing funders and developers have made to date in connecting projects with solar resources, as well as any barriers to this, and the comparison of the availability and cost of net metered installations on single-family dwelling units.

(4) List funding sources available for solar and other energy-related projects benefiting affordable housing and customers with low-income, including if it is federal or time-limited.

(5) Propose comparable successor programs to group net-metering for connecting affordable housing developments and income-eligible residents of manufactured home communities with solar projects in order to reduce operating costs, reduce resident energy burdens, and encourage electrification

and decarbonization of buildings. Programs that meet the intent of this section shall include the following:

(A) a process to bring additional solar or other renewable energy projects online that could be owned by affordable housing developers;

(B) a process to enroll eligible customers, including property owners of qualified rental units; and

(C) if connecting directly to customers, a bill credit process to allocate a customer's kWh solar share on a monthly basis.

Sec. 9. REPEAL

30 V.S.A. § 8005b (renewable energy programs; reports) is repealed.

Sec. 10. EFFECTIVE DATE

This act shall take effect on July 1, 2024.