1	TO THE HOUSE OF REPRESENTATIVES:
2	The Committee on Environment and Energy to which was referred House
3	Bill No. 289 entitled "An act relating to the Renewable Energy Standard"
4	respectfully reports that it has considered the same and recommends that the
5	bill be amended by striking out all after the enacting clause and inserting in
6	lieu thereof the following:
7	Sec. 1. 30 V.S.A. § 218d is amended to read:
8	§ 218d. ALTERNATIVE REGULATION OF ELECTRIC AND NATURAL
9	GAS COMPANIES
10	* * *
11	(n)(1) Notwithstanding subsection (a) of this section and sections 218, 225,
12	226, 227, and 229 of this title, a municipal company formed under local charter
13	or under chapter 79 of this title and an electric cooperative formed under
14	chapter 81 of this title shall be authorized to change its rates for service to its
15	customers if the rate change is:
16	(A) applied to all customers equally;
17	(B) not more than two three percent during any twelve-month period;
18	(C) cumulatively not more than 10 percent from the rates last
19	approved by the Commission; and
20	(D) not going to take effect more than 10 years from the last approval
21	for a rate change from the Commission.

1	* * *
2	Sec. 2. 30 V.S.A. § 8002 is amended to read:
3	§ 8002. DEFINITIONS
4	As used in this chapter:
5	* * *
6	(8) "Existing renewable energy" means renewable energy produced by a
7	plant that came into service prior to or on June 30, 2015 December 31, 2009.
8	* * *
9	(10) "Group net metering system" means a net metering system serving
10	more than one customer, or a single customer with multiple electric meters,
11	located within the service area of the same retail electricity provider. Various
12	buildings owned by municipalities, including water and wastewater districts,
13	fire districts, villages, school districts, and towns, may constitute a group net
14	metering system. A union or district school facility may be considered in the
15	same group net metering system with buildings of its member schools that are
16	located within the service area of the same retail electricity provider. A system
17	that files a complete application for a certificate of public good on or after
18	January 1, 2026 shall not qualify for group net metering, unless the plant will
19	be located on the same parcel, or a parcel adjacent to, the parcel where the
20	energy is utilized.
21	* * *

supply equipment; and

1	(15) "Net metering" means measuring the difference between the
2	electricity supplied to a customer and the electricity fed back by the customer's
3	net metering system during the customer's billing period:
4	(A) <u>using Using</u> a single, non-demand meter or such other meter that
5	would otherwise be applicable to the customer's usage but for the use of net
6	metering; or.
7	(B) $\frac{1}{1}$ If the system serves more than one customer, using multiple
8	meters. The calculation shall be made by converting all meters to a non-
9	demand, non-time-of-day meter, and equalizing them to the tariffed kWh rate.
10	(16) "Net metering system" means a plant for generation of electricity
11	that:
12	(A) is of no not more than 500 kW capacity;
13	(B) operates in parallel with facilities of the electric distribution
14	system;
15	(C) is intended primarily to offset the customer's own electricity
16	requirements and does not primarily supply electricity to electric vehicle
17	supply equipment, as defined in section 201 of this title, for the resale of
18	electricity to the public by the kWh or for other retail sales to the public,
19	including those based in whole or in part on a flat fee per charging session or a
20	time-based fee for occupying a parking space while using electric vehicle

I	(D)(1) employs a renewable energy source; or
2	(ii) is a qualified micro-combined heat and power system of
3	20 kW or fewer that meets the definition of combined heat and power in
4	subsection 8015(b) of this title and uses any fuel source that meets air quality
5	standards; and
6	(E)(i) for a system that files a complete application for a certificate of
7	public good after December 31, 2024, except for systems as provided for in
8	subdivision (ii) of this subdivision (E), generates energy that will be used on
9	the same parcel as, or a parcel adjacent to, the parcel where the plant is located;
10	(ii) for a system that files a complete application for a certificate
11	of public good after December 31, 2025, if the system serves a multifamily
12	building containing qualified rental units serving low-income tenants, as
13	defined under 32 V.S.A. § 5404a(a)(6), generates energy that will be used on
14	the same parcel as, or a parcel adjacent to, the parcel where the plant is located;
15	<u>and</u>
16	(iii) for purposes of this subdivisions (10) and (16), two parcels
17	shall be adjacent if they share a property boundary or are adjacent and
18	separated only by a river, stream, railroad line, private road, public highway, or
19	similar intervening landform.
20	(17) "New renewable energy" means renewable energy capable of
21	delivery in New England and produced by a specific and identifiable plant

1	coming into service on or after June 30, 2015 January 1, 2010, but excluding
2	energy generated by a hydroelectric generation plant with a capacity of
3	200 MW or greater.
4	(A) Energy from within a system of generating plants that includes
5	renewable energy shall not constitute new renewable energy, regardless of
6	whether the system includes specific plants that came or come into service on
7	or after June 30, 2015 January 1, 2010.
8	(B) Except as provided in subdivision 8005(c)(3) of this title, "New
9	new renewable energy" also may include includes the additional energy from
10	an existing renewable energy plant retrofitted with advanced technologies or
11	otherwise operated, modified, or expanded to increase the kWh output of the
12	plant in excess of $\frac{1}{2}$ historical baseline established by calculating the average
13	output of that plant for the 10-year period that ended June 30, 2015 January 1,
14	2010. If the production of new renewable energy through changes in
15	operations, modification, or expansion involves combustion of the resource,
16	the system also must result in an incrementally higher level of energy
17	conversion efficiency or significantly reduced emissions.
18	* * *
19	(25) "Customer with low income" means a person purchasing energy

from a retail electricity provider and with an income that is less than or equal

1	to 80 percent of area median income, adjusted for family size, as published
2	annually by the U.S. Department of Housing and Urban Development.
3	* * *
4	(31) "Load" means the total amount of electricity utilized by a retail
5	electricity provider over a 12-month calendar year period, including its retail
6	electric sales, any use by the provider itself not included in retail sales, and
7	transmission and distribution line losses associated with and allocated to the
8	retail electricity provider.
9	(32) "Load growth" means the increase above a baseline year in a retain
10	electricity provider's load.
11	Sec. 3. 30 V.S.A. § 8004 is amended to read:
12	§ 8004. SALES OF ELECTRIC ENERGY; RENEWABLE ENERGY
13	STANDARD (RES)
14	* * *
15	(d) Alternative compliance payment. In lieu of purchasing renewable
16	energy or tradeable renewable energy credits or supporting energy
17	transformation projects to satisfy the requirements of this section and section
18	8005 of this title, a retail electricity provider in this State may pay to the
19	Vermont Clean Energy Development Fund established under section 8015 of
20	this title an alternative compliance payment at the applicable rate set forth in
21	section 8005. The administrator of the Vermont Clean Energy Development

2	an alternative compliance payment to satisfy its obligations under subdivisions
3	8005(a)(1), 8005(a)(2), 8005(a)(4), and 8005(a)(5) of this title for the
4	development of renewable energy plants that are intended to serve and benefit
5	customers with low income of the retail electricity provider that has made the
6	payment. Such plants shall be located within the provider's service territory, if
7	feasible. In the event that such a payment is insufficient to enable the
8	development of a renewable energy plant, the administrator may use the
9	payment for other initiatives allowed under section 8015 of this title that will
10	benefit customers with low income of the retail electricity provider that has
11	made the payment.
12	* * *
13	Sec. 4. 30 V.S.A. § 8005 is amended to read:
14	§ 8005. RES CATEGORIES
15	(a) Categories. This section specifies three five categories of required
16	resources to meet the requirements of the RES established in section 8004 of
17	this title: total renewable energy, distributed renewable generation, and energy
18	transformation, new renewable energy, and load growth renewable energy. In
19	order to support progress toward Vermont's climate goals and requirements, a
20	provider may, but shall not be required to, exceed the statutorily required
21	amounts under this section.

Fund shall use the payment from a retail electricity provider electing to make

1	(1) Total renewable energy.
2	* * *
3	(B) Required amounts. The amounts of total renewable energy
4	required by this subsection (a) shall be 55 63 percent of each retail electricity
5	provider's annual retail electric sales load during the year beginning on
6	January 1, 2017 2025, increasing by at least an additional four percent each
7	third January 1 thereafter, until reaching 75 100 percent:
8	(i) on and after January 1, 2032 2035 for a retail electricity
9	provider who serves a single customer that takes service at 115 kilovolts and
10	each municipal retail electricity provider formed under local charter or chapter
11	79 of this title; and
12	(ii) on and after January 1, 2030, for all other retail electricity
13	providers.
14	(C) Relationship to other categories. Distributed renewable
15	generation used to meet the requirements of subdivision (2) of this subsection
16	(a), new renewable energy under subdivision (4) of this subsection (a), and
17	load growth renewable generation under subdivision (5) of this subsection (a)
18	shall also count toward the requirements of this subdivision. However, an
19	energy transformation project under subdivision (3) of this subsection (a) shall
20	not count toward the requirements of this subdivision.

1	(D) Municipal providers; petition. On petition by a provider that is a
2	municipal electric utility serving not more than 6,000 7,000 customers, the
3	Commission may reduce the provider's required amount under this subdivision
4	(1) for a period of up to three years. The Commission may approve one such
5	period only for a municipal provider. The Commission may reduce this
6	required amount if it finds that:
7	* * *
8	(2) Distributed renewable generation.
9	* * *
10	(B) Definition. As used in this section, "distributed renewable
11	generation" means one of the following:
12	(i) a A renewable energy plant that is new renewable energy; has a
13	plant capacity of five MW or less; and.
14	(ii) Is one of the following:
15	(I) new renewable energy;
16	(II) a hydroelectric renewable energy plant that is, on or before
17	January 1, 2024, owned and operated by a municipal electric utility formed
18	under local charter or chapter 79 of this title, as of January 1, 2020, including
19	future plant modifications that do not cause the capacity of such a plant to
20	exceed five MW; or

1	(III) a hydroelectric renewable energy plant that is, on or before
2	January 1, 2024, owned and operated by a retail electricity provider that is not
3	a municipal electric utility, provided such plant is and continues to be certified
4	by the Low Impact Hydropower Institute. Plants owned by such utilities on or
5	before January 1, 2024, which are later certified by the Low Impact
6	Hydropower Institute, and continue to be certified shall be eligible under this
7	subdivision (2) from the date of certification. Any future modifications that do
8	not cause the capacity of such a plant to exceed five MW shall also be eligible
9	under this subdivision (2); and
10	(iii) Is one of the following:
11	(I) is directly connected to the subtransmission or distribution
12	system of a Vermont retail electricity provider; or
13	(II) is directly connected to the transmission system of an
14	electric company required to submit a Transmission System Plan under
15	subsection 218c(d) of this title, if the plant is part of a plan approved by the
16	Commission to avoid or defer a transmission system improvement needed to
17	address a transmission system reliability deficiency identified and analyzed in
18	that Plan; or
19	(ii)(III) is a net metering system approved under the former
20	section 219a or under section 8010 of this title if the system is new renewable

1	energy and the interconnecting retail electricity provider owns and retires the
2	system's environmental attributes.
3	(C) Required amounts. The required amounts of distributed
4	renewable generation shall be one 5.8 percent of each retail electricity
5	provider's annual retail electric sales load during the year beginning on
6	January 1, 2017, increasing by an additional three-fifths of a percent 2025,
7	increasing by at least an additional:
8	(i) one and a half percent each subsequent January 1 until reaching
9	10 20 percent on and after January 1, 2035 for a retail electricity provider who
10	serves a single customer that takes service at 115 kilovolts and each municipal
11	electric utility formed under local charter or chapter 79 of this title; and
12	(ii) two percent each subsequent January 1 until reaching 20
13	percent on and after January 1, 2032 for all other retail electricity providers.
14	(D) Distributed generation greater than five MW. On petition of a
15	retail electricity provider, the Commission may for a given year allow the
16	provider to employ energy with environmental attributes attached or tradeable
17	renewable energy credits from a renewable energy plant with a plant capacity
18	greater than five MW to satisfy the distributed renewable generation
19	requirement if the plant would qualify as distributed renewable generation but
20	for its plant capacity and when the provider demonstrates either that:

1	(i) it is unable during that a given year to meet the requirement
2	solely with qualifying renewable energy plants of five MW or less. To
3	demonstrate this inability, the provider shall issue one or more requests for
4	proposals, and show that it is unable to obtain sufficient ownership of
5	environmental attributes to meet its required amount under this subdivision (2)
6	for that year from:
7	(i)(I) the construction and interconnection to its system of
8	distributed renewable generation that is consistent with its approved least-cost
9	integrated resource plan under section 218c of this title at a cost less than or
10	equal to the sum of the applicable alternative compliance payment rate and the
11	applicable rates published by the Department under the Commission's rules
12	implementing subdivision 209(a)(8) of this title; and
13	(ii)(II) purchase of tradeable renewable energy credits for
14	distributed renewable generation at a cost that is less than the applicable
15	alternative compliance rate; or
16	(ii) it has only one retail electricity customer who takes service at
17	115 kilovolts on property owned or controlled by the customer as of January 1
18	2024. Such a provider may seek leave under this subdivision (D) for a period
19	greater than a given year.
20	(3) Energy transformation.
21	* * *

(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 <u>load</u> 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). <u>In order to support progress toward Vermont's climate</u>
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

1	use of new renewable generation to support the reliability of the regional ISO-
2	NE electric system. To satisfy this requirement, a provider shall use new
3	renewable energy with environmental attributes attached or any class of
4	tradeable renewable energy credits generated by any renewable energy plant
5	coming into service after January 1, 2010 whose energy is capable of delivery
6	in New England.
7	(B) Required amounts and exemption. A retail electricity provider
8	that is 100 percent renewable under subdivision (b)(1) of this section shall be
9	exempt from any requirement for new renewable energy under this
10	subdivision (4). For all other retail electricity providers, the amount of new
11	renewable energy required by this subsection (a) shall be:
12	(i) For a retail electricity provider with 75,000 or more customers,
13	the following percentages of each provider's annual load:
14	(I) Four percent beginning on January 1, 2027.
15	(II) 10 percent on and after January 1, 2030.
16	(III) 15 percent on and after January 1, 2032.
17	(IV) 20 percent on and after January 1, 2035. If the
18	Commission determines in the report required under subdivision 8005b(b)(4)
19	of this title that it is reasonable to expect that there will be sufficient new
20	regional renewable resources available for a provider to meet its requirement
21	under this subdivision (4) at or below the alternative compliance payment rate

1	established in subdivision (6)(C) of this subsection (a) during a year beginning
2	prior to January 1, 2035, the Commission shall require that provider to meet its
3	requirement under this subdivision (4) in the earliest year the Commission
4	determines it can, provided that the provider shall not be required to meet that
5	requirement prior to the year starting January 1, 2032.
6	(ii) For a retail electricity provider with less than 75,000
7	customers, the following percentages of each provider's annual load:
8	(I) five percent beginning on January 1, 2030; and
9	(II) 10 percent on and after January 1, 2035.
10	(C) Relationship to other categories. Distributed renewable
11	generation used to meet the requirements of subdivision (2) of this subsection
12	(a) shall not also count toward the requirements of this subdivision (4). An
13	energy transformation project under subdivision (3) of this subsection (a) shall
14	not count toward the requirements of this subdivision (4).
15	(D) Single-customer provider. If a retail electricity provider with one
16	customer taking service at 115 kilovolts has not satisfied the distributed
17	renewable generation requirements of subdivision (2) of this subsection (a) on
18	property owned or controlled by the customer as of January 1, 2024, and the
19	cost of additional distributed renewable generation would be at or above the
20	alternative compliance payment rate for the distributed renewable generation
21	category or meeting that requirement with new renewable energy on its

1	property would be economically infeasible, that provider may satisfy the
2	requirements of subdivision (2) of this subsection (a) with an equivalent
3	amount of increased new renewable energy as defined in this subdivision (4).
4	(5) Load growth; retail electricity providers; 100 percent renewable.
5	(A) For any retail electricity provider that is 100 percent renewable
6	under subdivision (b)(1) of this section, that provider shall meet its load growth
7	above its 2024 calendar year load, with at least the following percentages of
8	new renewable energy or any renewable energy eligible under subdivision (2)
9	of this subsection (a):
10	(i) 50 percent beginning on January 1, 2025;
11	(ii) 75 percent on and after January 1, 2026;
12	(iii) 90 percent on and after January 1, 2027;
13	(iv) 100 percent on and after January 1, 2028 until the provider's
14	annual load exceeds 135 percent of the provider's 2022 annual load, at which
15	point the provider shall meet its additional load growth with at least 50 percent
16	new renewable energy until 2035; and
17	(v) 75 percent on and after January 1, 2035.
18	(B) For a retail electricity provider with 75,000 or more customers,
19	and for each provider, excluding any provider that is 100 percent renewable
20	under subdivision (b)(1) of this section, that is a member of the Vermont
21	Public Power Supply Authority or its successor, that provider shall meet its

1	load growth above its 2035 calendar year load with 100 percent new renewable
2	energy, which shall include the required amounts of distributed renewable
3	generation as applicable to the provider under subdivision (2) of this
4	subsection (a).
5	(C) On petition of a retail electricity provider subject to the load
6	growth requirements in subdivision (A) of this subdivision (a)(5), the
7	Commission may for a given year allow the provider to employ existing
8	renewable energy with environmental attributes attached or tradeable
9	renewable energy credits from an existing renewable energy plant to satisfy
10	part or all of the load growth requirement if the provider demonstrates that,
11	after making every reasonable effort, it is unable during that year to meet the
12	requirement with energy with environmental attributes attached or tradeable
13	renewable energy credits from qualifying new renewable energy plants.
14	(i) To demonstrate this inability, the provider shall at a minimum
15	timely issue one or more subsequent requests for proposals or transactions and
16	any additional solicitations as necessary to show that it is unable to obtain
17	sufficient ownership of environmental attributes from new renewable energy to
18	meet its required amount under this subdivision at a cost that is less than or
19	equal to the applicable alternative compliance rate for the load growth
20	category.

1	(11) In the event the provider is able to meet a portion, but not all,
2	of its load growth requirement in a calendar year with attributes from new
3	renewable energy at a cost that is less than or equal to the applicable
4	alternative compliance rate for the load growth category, the Commission shall
5	allow the provider to use existing renewables only for that portion of its
6	requirement that it is unable to meet with new renewable energy.
7	(iii) In the event that the provider is unable to meet its load growth
8	requirement with a combination of attributes from new renewable energy and
9	existing renewable energy at a cost that is less than or equal to the alternative
10	compliance rate laid out in subdivision (6) in this subsection (a), the
11	Commission shall require the provider to meet the remainder of its requirement
12	under this subdivision (5) by paying the alternative compliance rate for the
13	load growth category.
14	(D) Notwithstanding any provision of law to the contrary, any
15	additional energy available to a retail electricity provider that is 100 percent
16	renewable under subdivision (b)(1) of this section under agreements approved
17	or authorized by the Public Utility Commission in its April 15, 2011 Order
18	issued in Docket No. 7670, Petition of twenty Vermont utilities and Vermont
19	Public Power Supply Authority requesting authorization for the purchase of
20	218 MW to 225 MW of electricity shall also be eligible to meet the
21	requirements laid out in subdivision (A) of this subdivision (a)(5), provided

1	that such additional energy does not exceed two MW, and further provided that
2	a retail electricity provider exercises its right to such energy on or before
3	January 1, 2028 and for no longer than through December 31, 2038.
4	(6) Alternative compliance rates.
5	(A) The alternative compliance payment rates for the categories
6	established by <u>subdivisions (1)–(3) of</u> this subsection (a) shall be:
7	(i) total renewable energy requirement — \$0.01 per kWh; and
8	(ii) distributed renewable generation and energy transformation
9	requirements — \$0.06 per kWh.
10	(B) The Commission shall adjust these rates for inflation annually
11	commencing January 1, 2018, using the CPI.
12	(C) For the new renewable energy and load growth requirements, it
13	shall be \$0.04 per kWh annually commencing on January 1, 2025, with
14	calculations for inflation beginning on January 1, 2023.
15	(D) The Commission shall have the authority to adjust the alternative
16	compliance payment rate for the new renewable energy and load growth
17	requirements differently than the rate of inflation in order to minimize
18	discrepancies between this rate and alternative compliance payments for
19	similar classes in other New England states and to increase the likelihood that
20	Vermont retail electricity providers cost-effectively achieve these

l	requirements, if it determines doing so is consistent with State energy policy
2	under section 202a of this title.
3	(b) Reduced amounts; providers; 100 percent renewable.
4	(1) The provisions of this subsection shall apply to a retail electricity
5	provider that:
6	(A) as of January 1, 2015, was entitled, through contract, ownership
7	of energy produced by its own generation plants, or both, to an amount of
8	renewable energy equal to or more than 100 percent of its anticipated total
9	retail electric sales in 2017, regardless of whether the provider owned the
10	environmental attributes of that renewable energy; and
11	(B) annually each July 1 commencing in 2018, owns and has retired
12	tradeable renewable energy credits monitored and traded on the New England
13	Generation Information System or otherwise approved by the Commission
14	equivalent to 100 percent of the provider's total retail sales of electricity for the
15	previous calendar year.
16	* * *
17	(c) Biomass.
18	(1) Distributed renewable generation that employs biomass to produce
19	electricity shall be eligible to count toward a provider's distributed renewable
20	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.
- 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

1	8004 of this title. Changes to wood biomass electric facilities that were placed
2	in service prior to January 1, 2023, including converting to a combined heat
3	and power facility, adding or modifying a district energy system, replacing
4	electric generation equipment, or repowering the facility with updated or
5	different electric generation technologies, do not change the in service date for
6	the facility, or affect its eligibility to satisfy the requirements of this section
7	and section 8004 of this title, or qualify it as new renewable energy.
8	(d) Hydropower. A hydroelectric renewable energy plant, that is not
9	owned by a retail electricity provider, shall be eligible to satisfy the distributed
10	renewable generation or energy transformation requirement only if, in addition
11	to meeting the definition of distributed renewable generation, the plant:
12	(1) is and continues to be certified by the Low-impact Hydropower
13	Institute; or
14	(2) after January 1, 1987, received a water quality certification pursuant
15	to 33 U.S.C. § 1341 from the Agency of Natural Resources.
16	(e) Nothing in this subdivision is intended to relieve, modify, or in any
17	manner affect a renewable energy plant's on-going obligation to not have an
18	undue adverse effect on air and water purity, the natural environment and the
19	use of natural resources, and to comply with required environmental laws and
20	<u>rules.</u>

1	Sec. 5. 30 V.S.A. § 8005b is amended to read:
2	§ 8005b. RENEWABLE ENERGY PROGRAMS; REPORTS
3	(a) The Department shall file reports with the General Assembly in
4	accordance with this section.
5	(1) The House Committees on Commerce and Economic Development
6	and on Environment and Energy and Technology and the Senate Committees
7	on Economic Development, Housing and General Affairs, on Finance, and on
8	Natural Resources and Energy each shall receive a copy of these reports.
9	* * *
10	(b) The annual report under this section shall include at least each of the
11	following:
12	(1) An assessment of the costs and benefits of the RES based on the
13	most current available data, including rate and economic impacts, customer
14	savings, technology deployment, greenhouse gas emission reductions actually
15	achieved, fuel price stability, effect on transmission and distribution upgrade
16	costs, and any recommended changes based on this assessment.
17	(2) Projections, looking at least 10 years ahead, of the impacts of the
18	RES.
19	(A) The Department shall employ an economic model to make these
20	projections, to be known as the Consolidated RES Model, and shall consider at

least three scenarios based on high, mid-range, and low energy price forecasts.

1	(B) The Department shall make the model and associated documents
2	available on the Department's website.
3	(C) In preparing these projections, the Department shall:
4	(i) characterize each of the model's assumptions according to level
5	of certainty, with the levels being high, medium, and low; and
6	(ii) provide an opportunity for public comment.
7	(D) The Department shall project, for the State, the impact of the
8	RES in each of the following areas: electric utility rates; total energy
9	consumption; electric energy consumption; fossil fuel consumption; and
10	greenhouse gas emissions. The report shall compare the amount or level in
11	each of these areas with and without the program.
12	(3) An assessment of whether the requirements of the RES have been
13	met to date, and any recommended changes needed to achieve those
14	requirements.
15	(4) In addition to the information in subdivisions (1) through (3) of this
16	subsection prepared by the Department, for the annual report due in 2029, the
17	Commission as shall issue a report on whether it is reasonable to expect that
18	there will be sufficient new regional renewable resources available for a retail
19	electricity provider with 75,000 or more customers to meet its requirement
20	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

1	8005 of this title during the year beginning on January 1, 2032, or during the
2	years beginning on January 1, 2033 or January 1, 2034. The Commission shall
3	not be required to issue this report in a contested case under 3 V.S.A. chapter
4	25 but shall conduct a proceeding on the issue with opportunities for
5	participation by the retail electricity providers, Vermont Public Power Supply
6	Authority, Renewable Energy Vermont, and other members of the public.
7	Notwithstanding the timeline specified in subdivision 202b(e)(1) of this title,
8	the Commission shall file this annual report on or before December 15, 2028.
9	* * *
10	Sec. 6. 30 V.S.A. § 8006a is amended to read:
11	§ 8006a. GREENHOUSE GAS REDUCTION CREDITS
12	(a) Standard offer adjustment. In accordance with this section, greenhouse
13	gas reduction credits generated by an eligible ratepayer shall result in an
14	adjustment of the standard offer under subdivision 8005a(c)(1) of this title
15	(cumulative capacity; pace) or may be utilized by a retail electricity provider
16	that serves a single customer that takes service at 115 kilovolts to meet the
17	energy transformation requirements under subdivision 8005(a)(3)(D) of this
18	title. For the purpose of adjusting the standard offer under subdivision
19	8005a(c)(1) of this title or energy transformation requirements under
20	subdivision 8005(a)(3)(D) of this title, the amount of a year's greenhouse gas
21	reduction credits shall be the lesser of the following:

1	(1) The amount of greenhouse gas reduction credits created by the <u>an</u>
2	eligible ratepayers ratepayer served by all providers an eligible provider.
3	(2) The providers' eligible provider's annual retail electric sales load
4	during that year to those eligible ratepayers creating greenhouse gas reduction
5	credits.
6	(b) Definitions. In As used in this section:
7	(1) "Eligible ratepayer" means a customer of a Vermont retail electricity
8	provider who takes service at 115 kilovolts and has demonstrated to the
9	Commission that it has a comprehensive energy and environmental
10	management program. Provision of the customer's certification issued under
11	standard 14001 (environmental management systems) of the International
12	Organization for Standardization (ISO) shall constitute such a demonstration.
13	(2) "Eligible provider" means a Vermont retail electricity provider who
14	serves a single customer that takes service at 115 kilovolts.
15	(3) "Eligible reduction" means a reduction in non-energy-related
16	greenhouse gas emissions from manufacturing processes at an in-state facility
17	of an eligible ratepayer, provided that each of the following applies:
18	(A) The reduction results from a specific project undertaken by the
19	eligible ratepayer at the in-state facility after January 1, 2012 2023.

1	(B) The specific project reduces or avoids greenhouse gas emissions
2	above and beyond any reductions of such emissions required by federal and
3	State statutes and rules.
4	(C) The reductions are quantifiable and verified by an independent
5	third party as approved by the Agency of Natural Resources and the
6	Commission. Such independent third parties shall be certified by a body
7	accredited by the American National Standards Institute (ANSI) as having a
8	certification program that meets the ISO standards applicable to verification
9	and validation of greenhouse gas assertions. The independent third party shall
10	use methodologies specified under 40 C.F.R. part 98 and U.S. Environmental
11	Protection Agency greenhouse gas emissions factors and global warming
12	potential figures to quantify and verify reductions in all cases where those
13	factors and figures are available.
14	(3)(4) "Greenhouse gas" shall be as defined under has the same meaning
15	<u>as in</u> 10 V.S.A. § 552.
16	(4)(5) "Greenhouse gas reduction credit" means a credit for eligible
17	reductions, calculated in accordance with subsection (c) of this section and
18	expressed as a kWh credit eligible under subdivision 8005a(c)(1) of this title,
19	or as a credit eligible under subdivision 8005(a)(3)(D) of this title.
20	(c) Calculation. Greenhouse gas reduction credits shall be calculated as
21	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.

1	(e) Savings. A provider shall pass on savings that it realizes through
2	greenhouse gas reduction credits proportionally to the eligible ratepayers
3	generating the credits.
4	Sec. 7. 30 V.S.A. § 8010 is amended to read:
5	§ 8010. SELF-GENERATION AND NET METERING
6	* * *
7	(c) In accordance with this section, the Commission shall adopt and
8	implement rules that govern the installation and operation of net metering
9	systems.
10	(1) The rules shall establish and maintain a net metering program that:
11	* * *
12	(E) ensures that all customers who want to participate in net metering
13	have the opportunity to do so; [Repealed.]
14	* * *
15	(H) allows a customer to retain ownership of the environmental
16	attributes of energy generated by the customer's net metering system and of
17	any associated tradeable renewable energy credits or to transfer those attributes
18	and credits to the interconnecting retail provider, and:
19	(i) if the customer retains the attributes, reduces the value of the
20	credit provided under this section for electricity generated by the customer's
21	net metering system by an appropriate amount; and

revert to the interconnecting provider.

1	(ii) if the customer transfers the attributes to the interconnecting
2	provider, requires the provider to retain them for application toward
3	compliance with sections 8004 and 8005 of this title unless the provider has
4	fewer than 75,000 customers, in which case the attributes do not need to be
5	applied toward compliance obligations under sections 8004 and 8005 of this
6	title; and
7	(iii) if a retail electricity provider that is 100 percent renewable
8	under subdivision 8005(b)(1) of this title does not retire the transferred
9	attributes under sections 8004 and 8005 of this title, requires that the provider
10	apply an equivalent amount of attributes from distributed renewable generation
11	that qualifies under subdivision 8005(a)(2) of this title toward its compliance
12	obligations under sections 8004 and 8005 of this title.
13	(2) The rules shall include provisions that govern:
14	* * *
15	(F) the amount of the credit to be assigned to each kWh of electricity
16	generated by a net metering customer in excess of the electricity supplied by
17	the interconnecting provider to the customer, the manner in which the
18	customer's credit will be applied on the customer's bill, and the period during
19	which a net metering customer must use the credit, after which the credit shall

(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) A provider with fewer than 75,000 customers, including
one that is 100 percent renewable under subdivision 8005(b)(1) of this title,
may apply the amount of excess generation, as defined in the Commission's

1	rules, from existing net metering systems, to reduce the provider's statutory
2	requirements under subdivision 8005(a)(2) of this title.
3	(III) This subdivision (ii) shall apply to existing net metering
4	systems notwithstanding any contrary provision of 1 V.S.A. § 214 and 2014
5	Acts and Resolves No. 99, Sec. 10.
6	(3) The rules shall establish standards and procedures governing
7	application for and issuance or revocation of a certificate of public good for net
8	metering systems under the provisions of section 248 of this title. In
9	establishing these standards and procedures:
10	* * *
11	(C) The rules shall seek to simplify the application and review
12	process as appropriate, including simplifying the application and review
13	process to encourage group net metering systems when the system is at least 50
14	percent owned by the customers who receive the bill credits for the electricity
15	generated by the system.
16	* * *
17	Sec. 8. 30 V.S.A. § 202b is amended to read:
18	§ 202b. STATE COMPREHENSIVE ENERGY PLAN
19	* * *
20	(b) In developing or updating the Plan's recommendations, the Department
21	of Public Service shall seek public comment by holding public hearings in at

1	least five different geographic regions of the State on at least three different
2	dates, and by providing and maintaining notice through publication once a
3	week and at least seven days apart for two or more successive weeks in a
4	newspaper or newspapers of general circulation in the regions where the
5	hearings will be held, and by delivering notices to all licensed commercial
6	radio and television stations with transmitting facilities within the State, plus
7	Vermont Public Radio and Vermont Educational Television on the
8	Department's website for at least 21 days before the day of each hearing and
9	providing and maintaining reasonable notice consistent with best practices for
10	public engagement. The notice shall include an internet address where more
11	information regarding the hearings may be viewed.
12	* * *
13	(e) The Commissioner of Public Service (Commissioner) shall file an
14	annual report on progress in meeting the goals of the Plan. The report shall
15	address each of the following sectors of energy consumption in the State:
16	electricity, nonelectric fuels for thermal purposes, and transportation. In
17	preparing the report, the Commissioner shall consult with the Secretaries of
18	Administration, of Agriculture, Food and Markets, of Natural Resources, and
19	of Transportation and the Commissioner of Buildings and General Services.

1	(1) The Commissioner shall file the report on or before January 15 of
2	each year, commencing in 2019. The provisions of 2 V.S.A. § 20(d) shall not
3	apply to this report.
4	(2) The Commissioner shall file the report with the House Committees
5	Committee on Environment and Energy and Technology and on Natural
6	Resources, Fish, and Wildlife and with the Senate Committees on Finance and
7	on Natural Resources and Energy.
8	(3) For each sector, the report shall provide:
9	(A) In millions of British thermal units (MMBTUs) for the most
10	recent calendar year for which data are available, the total amount of energy
11	consumed, the amount of renewable energy consumed, and the percentage of
12	renewable energy consumed. For the electricity sector, the report shall also
13	state the amounts in megawatt hours (MWH) of retail sales and load for
14	Vermont as well as for each retail electricity provider and the Vermont and
15	New England summer and winter peak electric demand, including the hour and
16	day of peak demand.
17	(B) Projections of the energy reductions and shift to renewable
18	energy expected to occur under existing policies, technologies, and markets.
19	The most recent available data shall be used to inform these projections and
20	shall be provided as a supplement to the data described in subdivision (A) of
21	this subdivision (3).

1	(C) Recommendations of policies to further the renewable energy
2	requirements and goals set forth in statute and the Plan, along with an
3	evaluation of the relative cost-effectiveness and equity-related impacts of
4	different policy approaches.
5	(4) The report shall include a supplemental an analysis setting forth how
6	progress toward the goals of the Plan is supported by complementary work in
7	avoiding or reducing energy consumption through efficiency and demand
8	reduction. In this subdivision (4), "demand reduction" includes dispatchable
9	measures, such as controlling appliances that consume energy, and
10	nondispatchable measures, such as weatherization.
11	(5) The report shall include recommendations on methods to enhance
12	the process for planning, tracking, and reporting progress toward meeting
13	statutory energy goals requirements and the goals of the Plan. Such
14	recommendations may include the consolidation of one or more periodic
15	reports filed by the Department or other State agencies relating to renewable
16	energy, with proposals for amending the statutes relevant to those reports.
17	(6) The report shall include a summary of the following information for
18	each sector:
19	(A) major changes in relevant markets, technologies, and costs;
20	(B) average Vermont prices compared to the other New England
21	states, based on the most recent available data; and

1	(C) significant Vermont and federal incentive programs that are
2	relevant to one or more of the sectors.
3	(7) The report shall include the following information on progress
4	toward meeting the Renewable Energy Standard (RES):
5	(A) An assessment of the costs and benefits of the RES based on the
6	most current available data, including rate and economic impacts, customer
7	savings, technology deployment, greenhouse gas emission reductions achieved
8	both relative to 10 V.S.A § 578 requirements and societally, fuel price
9	stability, effect on transmission and distribution upgrade costs, and any
10	recommended changes based on this assessment.
11	(i) For the most recent calendar year for which data is available,
12	each retail electricity provider's retail sales and load, in MWh; required
13	amounts of renewable energy for each category of the RES as set forth in
14	section 8005 of this title; and amounts of renewable energy and tradeable
15	renewable energy credits eligible to satisfy the requirements of sections 8004
16	and 8005 of this title actually owned by the Vermont retail electricity
17	providers, expressed as a percentage of retail sales and total load.
18	(ii) The report shall summarize the energy transformation projects
19	undertaken pursuant to section 8005 of this title, their costs and benefits, their
20	claimed avoided fossil fuel consumption and greenhouse gas emissions, and, if
21	applicable, claimed energy savings.

1	(iii) The report shall summarize statewide progress toward
2	achieving each of the categories set forth in section 8005 of this title.
3	(iv) The report shall assess how costs and benefits of the RES are
4	being distributed across State, to the extent possible given available data, by
5	retail electricity service territory, municipality, and environmental justice focus
6	populations, as defined by 3 V.S.A. § 6002. Such an assessment shall consider
7	metrics to monitor affordability of electric rates.
8	(B) Projections, looking at least 10 years ahead, of the impacts of the
9	RES.
10	(i) The Department shall consider at least three scenarios based on
11	high, mid-range, and low energy price forecasts.
12	(ii) The Department shall provide an opportunity for public
13	comment on the model during its development and make the model and
14	associated documents available on the Department's website.
15	(iii) The Department shall project, for the State, the impact of the
16	RES in each of the following areas: electric utility rates, total energy
17	consumption, electric energy consumption, fossil fuel consumption, and
18	greenhouse gas emissions. The report shall compare the amount or level in
19	each of these areas with and without the program.

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1	(C) An assessment of whether the requirements of the RES have been
2	met to date, and any recommended changes needed to achieve those
3	requirements.
4	(7)(8) The report shall include any activity that occurs under the
5	Vermont Small Hydropower Assistance Program, the Vermont Village Green
6	Program, and the Fuel Efficiency Fund.
7	Sec. 9. REPORT
8	On or before January 15, 2025, the Department of Public Service, after
9	consultation with the Public Utility Commission, the Vermont Housing
10	Finance Agency, Vermont Housing and Conservation Board, Evernorth, Green
11	Mountain Power, Vermont Electric Cooperative, the Vermont Public Power
12	Supply Authority, other electric utilities that wish to participate, and the Office
13	of Racial Equity, shall submit a report to the House Committee on
14	Environment and Energy and the Senate Committee on Natural Resources and
15	Energy. The goal of this report is to develop a replacement program for group
16	net metering to reduce operating costs, reduce resident energy burdens, and
17	encourage electrification and decarbonization of buildings and enhance the
18	financial capacity of housing providers to electrify the buildings developed or
19	rehabilitated and provide relief to residents of manufactured home
20	communities from their energy burdens. This report shall:

1	(1) Discuss and phornize recommendations for repracement programs
2	based on how they would impact Vermont's impacted and frontline
3	communities and identify opportunities for these communities to benefit from
4	investments in renewables to adapt to climate and economic change within the
5	framework of a replacement of the net-metering program.
6	(2) Discuss current programs electric utilities have in place to serve
7	income-eligible customers.
8	(3) Discuss progress affordable housing funders and developers have
9	made to date in connecting projects with solar resources, as well as any
10	barriers to this, and the comparison to the availability and cost of net metering
11	on single-family dwelling units.
12	(4) List funding sources available for solar and other energy-related
13	projects benefiting affordable housing and customers with low-income,
14	including if it is federal or time-limited.
15	(5) Propose comparable successor programs to group net-metering for
16	connecting affordable housing developments and income-eligible residents of
17	manufactured home communities with solar projects in order to reduce
18	operating costs, reduce resident energy burdens, and encourage electrification
19	and decarbonization of buildings. Programs that meet the intent of this section
20	shall include the following:

1	(A) a process to bring additional solar or other renewable energy
2	projects online that could be owned by affordable housing developers;
3	(B) a process to enroll eligible customers, including property owners
4	of qualified rental units; and
5	(C) if connecting directly to customers, a bill credit process to
6	allocate a customer's kWh solar share on a monthly basis.
7	Sec. 10. EFFECTIVE DATE
8	This act shall take effect on July 1, 2024.
9	
10	
11	
12	(Committee vote:)
13	
14	Representative
15	FOR THE COMMITTEE