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	(15) "Net metering" means measuring the difference between the
10	electricity supplied to a customer and the electricity fed back by the customer's
11	net metering system during the customer's billing period:
12	(A) using Using a single, non-demand meter or such other meter that
13	would otherwise be applicable to the customer's usage but for the use of net
14	metering ; or .
15	(B) if If the system serves more than one customer, using multiple
16	meters. The calculation shall be made by converting all meters to a non-
17	demand, non-time-of-day meter, and equalizing them to the tariffed kWh rate.
18	(16) "Net metering system" means a plant for generation of electricity
19	that:
20	(A) is of no <u>not</u> more than 500 kW capacity;

1	(B) operates in parallel with facilities of the electric distribution
2	system;
3	(C) is intended primarily to offset the customer's own electricity
4	requirements and does not primarily supply electricity to electric vehicle
5	supply equipment, as defined in section 201 of this title, for the resale of
6	electricity to the public by the kWh or for other retail sales to the public,
7	including those based in whole or in part on a flat fee per charging session or a
8	time-based fee for occupying a parking space while using electric vehicle
9	supply equipment; and
10	(D)(i) employs a renewable energy source; or
11	(ii) is a qualified micro-combined heat and power system of 20 kW
12	or fewer that meets the definition of combined heat and power in subsection
13	8015(b) of this title and uses any fuel source that meets air quality standards;
14	and
15	(E) for systems that file a complete application for a certificate of
16	public good after January 1, 2025, generates energy through a single meter that
17	will be used on the same parcel as, or a parcel adjacent to, the parcel where the
18	plant is located. For purposes of this subsection (16), two parcels shall be
19	adjacent if they share a property boundary or are adjacent and separated only
20	by a river, stream, railroad line, private road, public highway, or similar
21	intervening landform.

1	(17) "New renewable energy" means renewable energy capable of
2	delivery in New England and produced by a specific and identifiable plant
3	coming into service on or after June 30, 2015 January 1, 2010, but excluding
4	energy generated by a hydroelectric generation plant with a capacity of 200
5	MW or greater.
6	(A) Energy from within a system of generating plants that includes
7	renewable energy shall not constitute new renewable energy, regardless of
8	whether the system includes specific plants that came or come into service on
9	<u>or</u> after June 30, 2015 <u>January 1, 2010</u> .
10	(B) Except as provided in 30 V.S.A. § 8005(c)(3), "New new
11	renewable energy" also may shall include:
12	(i) the additional energy from an existing renewable energy plant
13	retrofitted with advanced technologies or otherwise operated, modified, or
14	expanded to increase the kWh output of the plant in excess of an historical
15	baseline established by calculating the average output of that plant for the 10-
16	year period that ended June 30, 2015 January 1, 2010. If the production of
17	new renewable energy through changes in operations, modification, or
18	expansion involves combustion of the resource, the system also must result in
19	an incrementally higher level of energy conversion efficiency or significantly

1	(ii) any additional energy available to a retail electricity provider
2	under agreements approved or authorized by the Public Utility Commission in
3	its April 15, 2011 Order issued in Docket No. 7670, Petition of twenty
4	Vermont utilities and Vermont Public Power Supply Authority requesting
5	authorization for the purchase of 218 MW to 225 MW of electricity of H.Q.
6	Energy Services (U.S.) Inc; and
7	(iii) energy generated by a hydroelectric plant meeting the
8	requirements of 30 V.S.A. § 8005(d)(3).
9	* * *
10	(25) "Low income customer" means a person purchasing energy from a
11	retail electricity provider and having income that is less than or equal to 80
12	percent of area median income, adjusted for family size, in accordance with
13	federal standards generally accepted at the time of incorporation and
14	comparable to standards of the U.S. Department of Housing and Urban
15	Development existing on June 16, 1988.
16	* * *
17	(31) "Load" means the total amount of electricity utilized by a retail
18	electricity provider over a 12-month calendar year period, including its retail
19	electric sales, any use by the provider itself not included in retail sales, and
20	transmission and distribution line losses associated with and allocated to the

1	utility; provided, however, that prior to January 1, 2025, load means a
2	provider's annual retail electric sales.
3	(32) "Load growth" means the increase above a baseline year in a retail
4	electricity provider's load.
5	Sec. 3. 30 V.S.A. § 8003 is amended to read:
6	§ 8003. RENEWABLE ENERGY PRICING
7	(a) An electric utility, municipal department formed under local charter or
8	chapter 79 of this title, or electric cooperative formed under chapter 81 of this
9	title may implement a renewable energy pricing program under this section for
10	its customers, or offer customers the option of making a voluntary contribution
11	to the Vermont Clean Energy Development Fund established under section
12	8015 of this title. Such renewable energy pricing programs may include
13	tariffs, standard special contracts, or other arrangements whose purpose is to
14	increase the company's reliance on, or the customer's support of, renewable
15	sources of energy or the type and quantity of renewable energy resources
16	available.
17	(b) A standard special contract for renewable pricing that has been
18	approved as to form and substance by the Commission under this section shall
19	not require further approval by the Commission under section 229 of this title
20	as to individual customers who choose to execute that contract.

1	(c) Renewable pricing programs may be priced in the form of a premium
2	relative to the tariff that would otherwise apply;, provided the premium shall
3	be cost-based, shall reasonably reflect the difference between acquiring the
4	renewable energy and the utility's alternative cost of power, including
5	administrative costs, and shall be adjusted via such periodic adjustment
6	mechanisms, including adjustment clauses, as the Commission shall approve
7	as part of a renewable pricing program. Any renewable pricing program shall
8	require that any costs of power in excess of the company's alternative cost of
9	power shall be borne solely by those customers who elect to participate in the
10	renewable pricing program.
11	(d) Tradeable renewable energy credits (with or without other features),
12	tradeable emissions credits, emission offsets, or other market instruments
13	created or obtained by energy resources acquired pursuant to or as part of a
14	renewable pricing program approved under this section shall be permanently
15	retired by or on behalf of the program's subscribers, and shall not be sold or
16	otherwise disposed of. However, if a program is not fully subscribed, any such
17	instruments created or obtained by the unsubscribed portion of the program
18	may be sold or disposed of at no less than market value if the net proceeds of
19	such sale or disposal are used to reduce the cost paid under the renewable
20	pricing program.

1	(e) The Commission shall ensure that disclosures and representations made
2	regarding renewable pricing programs are accurate, are reasonably supported
3	by objective data, disclose the types of technologies used, whether the energy
4	is Vermont-based or not, and clearly distinguish between energy or tradeable
5	energy credits provided from renewable and nonrenewable sources, and
6	existing and new sources.
7	(f) [Repealed.]
8	(g)(e) The Commission shall consider the following factors in deciding
9	whether and upon what conditions to approve a proposed renewable energy
10	pricing program:
11	(1) minimization of marketing and administrative expenses;
12	(2) auditing or certification of sources of energy or tradeable renewable
13	energy credits;
14	(3) marketing and promotion plans;
15	(4) effectiveness of the program in meeting the goals of promoting
16	renewable energy generation and public understanding of renewable energy
17	sources in Vermont;
18	(5) retention by the program of renewable energy production incentives,
19	tax incentives, and other incentives earned or otherwise obtained by energy
20	resources acquired pursuant to or as part of a renewable energy pricing

1	program approved under this section to reduce the cost of any premiums paid
2	under this section; and
3	(6) costs imposed on nonparticipating customers arising on account of
4	the implementation of the voluntary renewable energy pricing program.
5	Sec. 4. 30 V.S.A. § 8004 is amended to read:
6	§ 8004. SALES OF ELECTRIC ENERGY; RENEWABLE ENERGY
7	STANDARD (RES)
8	* * *
9	(d) Alternative compliance payment. In lieu of purchasing renewable
10	energy or tradeable renewable energy credits or supporting energy
11	transformation projects to satisfy the requirements of this section and section
12	8005 of this title, a retail electricity provider in this State may pay to the
13	Vermont Clean Energy Development Fund established under section 8015 of
14	this title an alternative compliance payment at the applicable rate set forth in
15	section 8005; provided, however, that a retail electricity provider electing to
16	make an alternative compliance payment to satisfy its obligations under
17	subdivision 8005(a)(5) of this title shall directly contribute the payment to the
18	development of renewable energy plants within the provider's service territory
19	that are intended to serve and benefit customers with low-income.
20	* * *
21	Sec. 5. 30 V.S.A. § 8005 is amended to read:

1 § 8005. RES CATEGORIES

2	(a) Categories. This section specifies three five categories of required
3	resources to meet the requirements of the RES established in section 8004 of
4	this title: total renewable energy, distributed renewable generation, and energy
5	transformation, new renewable energy, and load growth renewable energy.
6	The requirements contained in this section set forth the minimum statutory
7	requirements under the RES. In order to support progress toward Vermont's
8	climate goals and requirements, a provider may, but shall not be required to,
9	exceed the statutorily required amounts under this section.
10	(1) Total renewable energy.
11	* * *
12	(B) Required amounts. The amounts of total renewable energy
13	required by this subsection shall be $\frac{55}{63}$ percent of each retail electricity
14	provider's annual retail electric sales load during the year beginning on
15	January 1, 2017 2025, increasing by <u>at least</u> an additional four percent each
16	third January 1 thereafter, until reaching 75 100 percent:
17	(i) on and after January 1, 2032 2035 for a retail electricity provider
18	who serves a single customer that takes service at 115 kilovolts and each
19	municipal retail electricity provider formed under local charter or chapter 79 of

2providers.3(C) Relationship to other categories. Distributed renewable4generation used to meet the requirements of subdivision (2) of this subsection5(a), new renewable energy under subdivision (4) of this subsection, and load6growth renewable generation under subdivision (5) of this subsection shall also7count toward the requirements of this subdivision. However, an energy8transformation project under subdivision (3) of this subsection shall not count9toward the requirements of this subdivision.10***11(2) Distributed renewable generation.12***13(B) Definition. As used in this section, "distributed renewable14generation" means one of the following:	nts of subdivision (2) of this subsection ivision (4) of this subsection, and load bdivision (5) of this subsection shall also subdivision. However, an energy
4 generation used to meet the requirements of subdivision (2) of this subsection 5 (a), new renewable energy under subdivision (4) of this subsection, and load 6 growth renewable generation under subdivision (5) of this subsection shall also 7 count toward the requirements of this subdivision. However, an energy 8 transformation project under subdivision (3) of this subsection shall not count 9 toward the requirements of this subdivision. 10 *** 11 (2) Distributed renewable generation. 12 *** 13 (B) Definition. As used in this section, "distributed renewable	nts of subdivision (2) of this subsection ivision (4) of this subsection, and load bdivision (5) of this subsection shall also subdivision. However, an energy
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13 (B) Definition. As used in this section, "distributed renewable	ation.
	* *
14 generation" means one of the following:	is section, "distributed renewable
	g :
15 (i) a renewable energy plant that is new renewable energy; has a	int that is new renewable energy; has a
16 plant capacity of five MW or less; and	
17 (ii) is one of the following:	y. 2-
18 <u>(I) new renewable energy;</u>	<u>·gy;</u>
19 (II) a hydroelectric renewable energy plant that is, on or before	
20 January 1, 2024, owned and operated by a municipal electric utility formed	ewable energy plant that is, on or before
21 <u>under local charter or chapter 79 of this title</u> , as of January 1, 2020, including	

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

1	(C) Required amounts. The required amounts of distributed
2	renewable generation shall be one percent of each retail electricity provider's
3	annual retail electric sales load during the year beginning January 1, 2017,
4	increasing by <u>at least</u> an additional three-fifths of a percent <u>until January 1,</u>
5	<u>2025, then:</u>
6	(i) increasing by at least an additional one and a half percent each
7	subsequent January 1 until reaching 10 20 percent on and after January 1, 2035
8	for a retail electricity provider who serves a single customer that takes service
9	at 115 kilovolts and each municipal electric utility formed under local charter
10	or chapter 79 of this title; and
11	(ii) increasing by at least an additional two percent each
11 12	(ii) increasing by at least an additional two percent each subsequent January 1 until reaching 20 percent on and after January 1, 2032
12	subsequent January 1 until reaching 20 percent on and after January 1, 2032
12 13	subsequent January 1 until reaching 20 percent on and after January 1, 2032 for all other retail electricity providers.
12 13 14	<u>subsequent January 1 until reaching 20 percent</u> on and after January 1, 2032 <u>for all other retail electricity providers</u> . (D) Distributed generation greater than five MW. On petition of a
12 13 14 15	<u>subsequent January 1 until reaching 20 percent</u> on and after January 1, 2032 <u>for all other retail electricity providers</u> . (D) Distributed generation greater than five MW. On petition of a retail electricity provider, the Commission may for a given year allow the
12 13 14 15 16	 <u>subsequent January 1 until reaching 20 percent</u> on and after January 1, 2032 <u>for all other retail electricity providers</u>. (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
12 13 14 15 16 17	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

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 subdivision (D) for a period
19	greater than a given year.
20	(3) Energy transformation.
21	* * *

1	(B) Required amounts. For the energy transformation category, the
2	required amounts shall be two percent of each retail electricity provider's
3	annual retail electric sales load during the year beginning January 1, 2017,
4	increasing by an additional two-thirds of a percent each subsequent January 1
5	until reaching 12 percent on and after January 1, 2032. However, in the case
6	of a provider that is a municipal electric utility serving not more than 6,000
7	customers, the required amount shall be two percent of the provider's annual
8	retail sales load beginning on January 1, 2019, increasing by an additional two-
9	thirds of a percent each subsequent January 1 until reaching 10 and two-thirds
10	percent on and after January 1, 2032. Prior to January 1, 2019, such a
11	municipal electric utility voluntarily may engage in one or more energy
12	transformation projects in accordance with this subdivision (3). In order to
13	support progress toward Vermont's climate goals and requirements, retail
14	electricity providers may, but shall not be required to, exceed the statutorily
15	required amounts, up to and including procuring all available energy
16	transformation category projects and measures. The Commission shall not
17	hold imprudent any retail electricity provider expenditure to support energy
18	transformation projects or measures, based on the expenditure being above and
19	beyond what is statutorily required, provided the projects and measures
20	otherwise comply with statute and Commission rules.
21	* * *

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

1	regional renewable resources available for a provider to meet its requirement
2	under this subdivision (4) at or below the alternative compliance payment rate
3	laid out in subdivision 8005(5)(iii) of this title during a year beginning prior to
4	January 1, 2025, the Commission shall require that provider to meet its
5	requirement under this subdivision (4) in the earliest year the Commission
6	determines it can, provided that the provider shall not be required to meet that
7	requirement prior to the year starting January 1, 2032.
8	(ii) For a retail electricity provider with less than 75,000
9	customers, the following percentages of each provider's annual load:
10	(I) five percent beginning on January 1, 2030; and
11	(II) 10 Percent on and after January 1, 2035.
12	(C) Relationship to other categories. Distributed renewable
13	generation used to meet the requirements of subdivision (2) of this subsection
14	(a) shall not also count toward the requirements of this subdivision (4). An
15	energy transformation project under subdivision (3) of this subsection (a) shall
16	not count toward the requirements of this subdivision (4).
17	(D) Single customer provider. If a retail electricity provider with one
18	customer taking service at 115 kilovolts has not satisfied the distributed
19	renewable generation requirements of subdivision (2) of this subsection (a) on
20	property owned or controlled by the customer as of January 1, 2024, that
21	provider may satisfy the requirements of subdivision (2) of this subsection (a)

1	with an equivalent amount of increased new renewable energy as defined in
2	this subdivision (4), provided that the cost of additional distributed renewable
3	generation would be at or below the alternative compliance payment rate for
4	the distributed renewable generation category or economically infeasible.
5	(5) Load growth; retail electricity providers; 100 percent renewable.
6	(A) For any retail electricity provider that is 100 percent renewable
7	under subdivision (b)(1) of this section that provider shall meet its load growth
8	above its 2024 calendar year load, with at least the following percentages of
9	new renewable energy:
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 Swanton Village, Inc. Electric Department,
20	that is a member of the Vermont Public Power Supply Authority or its
21	successor, that provider shall meet its load growth above its 2035 calendar year

1	load with 100 percent new renewable energy, which shall include the required
2	amounts of distributed renewable generation as applicable to the provider
3	under subdivision (2) of this subsection (a).
4	(C) On petition of a retail electricity provider subject to the load
5	growth requirements in subdivision (1) of this subsection (a), the Commission
6	may for a given year allow the provider to employ existing renewable energy
7	with environmental attributes attached or tradeable renewable energy credits
8	from an existing renewable energy plant to satisfy part or all of the load growth
9	requirement if the provider demonstrates that, after making every reasonable
10	effort, it is unable during that year to meet the requirement with energy with
11	environmental attributes attached or tradeable renewable energy credits from
12	qualifying new renewable energy plants.
13	(i) To demonstrate this inability, the provider shall at a minimum
14	timely issue one or more subsequent requests for proposals or transactions and
15	any additional solicitations as necessary to show that it is unable to obtain
16	sufficient ownership of environmental attributes from new renewable energy to
17	meet its required amount under this subdivision at a cost that is less than or
18	equal to the applicable alternative compliance rate for the load growth
19	category.
20	(ii) In the event the provider is able to meet a portion, but not all,
21	of its load growth requirement in a calendar year with attributes from new

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1	renewable energy at a cost that is less than or equal to the applicable
2	alternative compliance rate for the load growth category, the Commission shall
3	allow the provider to use existing renewables only for that portion of its
4	requirement that it is unable to meet with new renewable energy.
5	(iii) In the event that the provider is unable to meet its load growth
6	requirement with a combination of attributes from new renewable energy and
7	existing renewable energy at a cost that is less than or equal to the alternative
8	compliance rate laid out in subdivision (6) in this subsection (a), the
9	Commission shall require the provider to meet the remainder of its requirement
10	under this subdivision by paying the alternative compliance rate for the load
11	growth category.
12	(6) Alternative compliance rates.
13	(A) The alternative compliance payment rates for the categories
14	established by <u>subdivisions (1)–(3) of</u> this subsection (a) shall be:
15	(i) total renewable energy requirement <u>\$0.01 per kWh; and</u>
16	(ii) distributed renewable generation and energy transformation
17	requirements \$0.06 per kWh.
18	(B) The set by the Commission, which shall adjust these rates for
19	inflation annually commencing January 1, 2018, using the CPI.

1	(B) For the new renewable energy and load growth requirements, it
2	shall be \$0.04 per kWh annually commencing on January 1, 2025, with
3	calculations for inflation beginning on January 1, 2023.
4	(C) The Commission shall have the authority to adjust the alternative
5	compliance payment rate for the new renewable energy and load growth
6	requirements differently than the rate of inflation in order to minimize
7	discrepancies between this rate and the Massachusetts Class I alternative
8	compliance payment rate under 225 Mass. Reg. § 14.08(3) and to increase the
9	likelihood that Vermont retail electricity providers cost-effectively achieve
10	these requirements, if it determines doing so is consistent with State energy
11	policy under section 202a of this title.
12	(b) Reduced amounts; providers; 100 percent renewable.
13	(1) The provisions of this subsection shall apply to a retail electricity
14	provider that:
15	(A) as of January 1, 2015, was entitled, through contract, ownership
16	of energy produced by its own generation plants, or both, to an amount of
17	renewable energy equal to or more than 100 percent of its anticipated total
18	retail electric sales load in 2017, regardless of whether the provider owned the
19	environmental attributes of that renewable energy; and
20	(B) annually each July 1 commencing in 2018, owns and has retired
21	tradeable renewable energy credits monitored and traded on the New England

1	Generation Information System or otherwise approved by the Commission
2	equivalent to 100 percent of the provider's total retail sales load of electricity
3	for the previous calendar year.
4	* * *
5	(c) Biomass.
6	(1) Distributed renewable generation that employs biomass to produce
7	electricity shall be eligible to count toward a provider's distributed renewable
8	generation or energy transformation requirement only if the plant satisfies the
9	requirements of subdivision (3) of this subsection and produces both electricity
10	and thermal energy from the same biomass fuel and the majority of the energy
11	recovered from the plant is thermal energy.
12	(2) Distributed renewable generation and energy transformation projects
13	that employ forest biomass to produce energy shall comply with renewability
14	standards adopted by the Commissioner of Forests, Parks and Recreation under
15	10 V.S.A. § 2751. Energy transformation projects that use wood feedstock,
16	except for noncommercial applications, that are eligible at the time of project
17	commissioning to meet the renewability standards adopted by the
18	Commissioner of Forests, Parks and Recreation do not lose eligibility due to a
19	subsequent change in the renewability standards after the project
20	commissioning date.

1	(3) No new wood biomass electricity generation facility or wood
2	biomass combined heat and power facility coming into service after January 1,
3	2023, shall be eligible to satisfy any requirements of this section and section
4	8004 of this title unless that facility achieves 60 percent overall efficiency and
5	at least a 50 percent net lifecycle greenhouse gas emissions reduction relative
6	to the lifecycle emissions from the combined operation of a new combined-
7	cycle natural gas plant using the most efficient commercially available
8	technology. Any energy generation using wood feedstock from an existing
9	wood biomass electric generation facility placed in service prior to January 1,
10	2023, remains eligible to satisfy any requirements of this section and section
11	8004 of this title. Changes to wood biomass electric facilities that were placed
12	in service prior to January 1, 2023, including converting to a combined heat
13	and power facility, adding or modifying a district energy system, replacing
14	electric generation equipment, or repowering the facility with updated or
15	different electric generation technologies, do not change the in service date for
16	the facility, or affect its eligibility to satisfy the requirements of this section
17	and section 8004 of this title, or qualify it as new renewable energy.
18	(d) Hydropower. A hydroelectric renewable energy plant shall be eligible
19	to satisfy the distributed renewable generation or energy transformation
20	requirement only if, in addition to meeting the definition of distributed
21	renewable generation, the plant:

1	(1) is and continues to be certified by the Low-impact Hydropower
2	Institute; or
3	(2) after January 1, 1987, received a water quality certification pursuant
4	to 33 U.S.C. § 1341 from the Agency of Natural Resources.
5	Sec. 6. 30 V.S.A. § 8005b is amended to read:
6	§ 8005b. RENEWABLE ENERGY PROGRAMS; REPORTS
7	(a) The Department shall file reports with the General Assembly in
8	accordance with this section.
9	(1) The House Committees on Commerce and Economic Development
10	and on Energy and Technology Environment and Energy and the Senate
11	Committees on Economic Development, Housing and General Affairs, on
12	Finance, and on Natural Resources and Energy each shall receive a copy of
13	these reports.
14	* * *
15	(b) The annual report under this section shall include at least each of the
16	following:
17	(1) An assessment of the costs and benefits of the RES based on the
18	most current available data, including rate and economic impacts, customer
19	savings, technology deployment, greenhouse gas emission reductions actually
20	achieved, fuel price stability, effect on transmission and distribution upgrade
21	costs, and any recommended changes based on this assessment.

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1	(2) Projections, looking at least 10 years ahead, of the impacts of the
2	RES.
3	(A) The Department shall employ an economic model to make these
4	projections, to be known as the Consolidated RES Model, and shall consider at
5	least three scenarios based on high, mid-range, and low energy price forecasts.
6	(B) The Department shall make the model and associated documents
7	available on the Department's website.
8	(C) In preparing these projections, the Department shall:
9	(i) characterize each of the model's assumptions according to level
10	of certainty, with the levels being high, medium, and low; and
11	(ii) provide an opportunity for public comment.
12	(D) The Department shall project, for the State, the impact of the
13	RES in each of the following areas: electric utility rates; total energy
14	consumption; electric energy consumption; fossil fuel consumption; and
15	greenhouse gas emissions. The report shall compare the amount or level in
16	each of these areas with and without the program.
17	(3) An assessment of whether the requirements of the RES have been
18	met to date, and any recommended changes needed to achieve those
19	requirements.
20	(4) The annual report due in 2029 under this subsection (b) shall be
21	prepared in consultation with and issued jointly with the Commission as part of

1	a proceeding before the Commission with opportunities for participation by the
2	retail electricity providers, Vermont Public Power Supply Authority,
3	Renewable Energy Vermont, and other members of the public. In addition to
4	the information considered in subdivisions (1) through (3) of this subsection,
5	this component of the annual report shall also consider whether it is reasonable
6	to expect that there will be sufficient new regional renewable resources
7	available for a retail electricity provider with 75,000 or more customers to
8	meet its requirement under subdivision 8005(4)(B)(i)(III) of this title at or
9	below the alternative compliance payment rate for the new renewable
10	generation category of section 8005 of this title during the year beginning on
11	January 1, 2032, or during the years beginning on January 1, 2033 or January
12	1, 2034. The Commission shall not be required to issue this report in a
13	contested case under 3 V.S.A. chapter 25. Notwithstanding the timeline
14	specified in 30 V.S.A. 202b (e)(1), the Commission shall file this annual report
15	on or before December 15, 2028.
16	* * *
17	Sec. 7. 30 V.S.A. § 8006a is amended to read:
18	§ 8006a. GREENHOUSE GAS REDUCTION CREDITS
19	(a) Standard offer adjustment. In accordance with this section, greenhouse
20	gas reduction credits generated by an eligible ratepayer shall result in an
21	adjustment of the standard offer under subdivision 8005a(c)(1) of this title

1	(cumulative capacity; pace) or may be utilized by a retail electricity provider
2	that serves a single customer that takes service at 115 kilovolts to meet the
3	energy transformation requirements under subdivision 8005(a)(3)(D) of this
4	title. For the purpose of adjusting the standard offer under subdivision
5	8005a(c)(1) of this title or energy transformation requirements under
6	subdivision 8005(a)(3)(D) of this title, the amount of a year's greenhouse gas
7	reduction credits shall be the lesser of the following:
8	(1) The amount of greenhouse gas reduction credits created by the an
9	eligible ratepayers <u>ratepayer</u> served by all providers an eligible provider.
10	(2) The providers' eligible provider's annual retail electric sales load
11	during that year to those eligible ratepayers creating greenhouse gas reduction
12	credits.
13	(b) Definitions. In <u>As used in</u> this section:
14	(1) "Eligible ratepayer" means a customer of a Vermont retail electricity
15	provider who takes service at 115 kilovolts and has demonstrated to the
16	Commission that it has a comprehensive energy and environmental
17	management program. Provision of the customer's certification issued under
18	standard 14001 (environmental management systems) of the International
19	Organization for Standardization (ISO) shall constitute such a demonstration.
20	(2) <u>"Eligible provider" means a Vermont retail electricity provider who</u>
21	serves a single customer that takes service at 115 kilovolts.

1	(3) "Eligible reduction" means a reduction in non-energy-related
2	greenhouse gas emissions from manufacturing processes at an in-state facility
3	of an eligible ratepayer, provided that each of the following applies:
4	(A) The reduction results from a specific project undertaken by the
5	eligible ratepayer at the in-state facility after January 1, 2012 2023.
6	(B) The specific project reduces or avoids greenhouse gas emissions
7	above and beyond any reductions of such emissions required by federal and
8	State statutes and rules.
9	(C) The reductions are quantifiable and verified by an independent
10	third party as approved by the Agency of Natural Resources and the
11	Commission. Such independent third parties shall be certified by a body
12	accredited by the American National Standards Institute (ANSI) as having a
13	certification program that meets the ISO standards applicable to verification
14	and validation of greenhouse gas assertions. The independent third party shall
15	use methodologies specified under 40 C.F.R. part 98 and U.S. Environmental
16	Protection Agency greenhouse gas emissions factors and global warming
17	potential figures to quantify and verify reductions in all cases where those
18	factors and figures are available.
19	(3)(4) "Greenhouse gas" shall be as defined under has the same meaning
20	<u>as in</u> 10 V.S.A. § 552.

1	(4)(5) "Greenhouse gas reduction credit" means a credit for eligible
2	reductions, calculated in accordance with subsection (c) of this section and
3	expressed as a kWh credit eligible under subdivision 8005a(c)(1) of this title,
4	or as a credit eligible under subdivision 8005(a)(3)(D) of this title.
5	(c) Calculation. Greenhouse gas reduction credits shall be calculated as
6	follows:
7	(1) Eligible reductions shall be quantified in metric tons of CO2
8	equivalent, in accordance with the methodologies specified under 40 C.F.R.
9	part 98, and using U.S. Environmental Protection Agency greenhouse gas
10	emissions factors and global warming potential figures, and may shall be
11	counted annually for the life of the specific project that resulted in the
12	reduction. A project that converts a gas with a high global warming potential
13	into a gas with relatively lower global warming potential shall be eligible if the
14	conversion produces a CO2 equivalent reduction on an annual basis.
15	(2) Metric tons of CO2 equivalent quantified under subdivision (1) of
16	this subsection shall be converted into units of energy through calculation of
17	the equivalent number of kWh of generation by renewable energy plants, other
18	than biomass, that would be required to achieve the same level of greenhouse
19	gas emission reduction through the displacement of market power purchases.
20	For the purpose of this subdivision, the value of the avoided greenhouse gas
21	emissions shall be based on the aggregate greenhouse gas emission

1	characteristics of system power in the regional transmission area overseen by
2	the Independent System Operator of New England (ISO-NE).
3	(d) Reporting. An eligible ratepayer provider shall report to the
4	Commission annually on each specific project undertaken by an eligible
5	ratepayer to create eligible reductions. The Commission shall specify the
б	required contents of such reports, which shall be publicly available.
7	(e) Savings. A provider shall pass on savings that it realizes through
8	greenhouse gas reduction credits proportionally to the eligible ratepayers
9	generating the credits.
10	Sec. 8. 30 V.S.A. § 8010 is amended to read:
11	§ 8010. SELF-GENERATION AND NET METERING
12	* * *
13	(c) In accordance with this section, the Commission shall adopt and
14	implement rules that govern the installation and operation of net metering
15	systems.
16	(1) The rules shall establish and maintain a net metering program that:
17	* * *
18	(H) allows a customer to retain ownership of the environmental
19	attributes of energy generated by the customer's net metering system and of
20	any associated tradeable renewable energy credits or to transfer those attributes
21	and credits to the interconnecting retail provider, and:

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

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1	which a net metering customer must use the credit, after which the credit shall
2	revert to the interconnecting provider.
3	(i) When assigning an amount of credit under this subdivision (F),
4	the Commission shall consider making multiple lengths of time available over
5	which a customer may take a credit and differentiating the amount according to
6	the length of time chosen. For example, a monthly credit amount may be
7	higher if taken over 10 years and lower if taken over 20 years. Factors relevant
8	to this consideration shall include the customer's ability to finance the net
9	metering system, the cost of that financing, and the net present value to all
10	ratepayers of the net metering program. [Repealed.]
11	(ii) In As used in this subdivision (ii), "existing net metering
12	system" means a net metering system for which a complete application was
13	filed before January 1, 2017.
14	(I) Commencing 10 years from the date on which an existing
15	net metering system was installed, the Commission may apply to the system
16	the same rules governing bill credits and the use of those credits on the
17	customer's bill that it applies to net metering systems for which applications
18	were filed on or after January 1, 2017, other than any adjustments related to
19	siting and tradeable renewable energy credits.
20	(II) <u>A provider with fewer than 75,000 customers may apply</u>
21	the environmental attributes of energy generated by existing net metering

1	systems, that are less than 150 kWh, to the providers statutory requirements
2	under this section if the retail provider has not been informed that the
3	environmental attributes have been sold or otherwise retired. A provider with
4	fewer than 75,000 customers may apply the environmental attributes of energy
5	generated by existing net metering systems that are 150 kWh or greater to the
6	providers statutory requirements under this section if the provider demonstrates
7	to the Commission the environmental attributes have not been sold or
8	otherwise retired.
9	(III) This subdivision (ii) shall apply to existing net metering
10	systems notwithstanding any contrary provision of 1 V.S.A. § 214 and 2014
11	Acts and Resolves No. 99, Sec. 10.
12	* * *
13	Sec. 9. EFFECTIVE DATE
14	This act shall take effect on July 1, 2024.
15	
16	
17	
18	(Committee vote:)
19	
20	Representative
21	FOR THE COMMITTEE

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