

1 Introduced by Committee on Energy and Technology

2 Date:

3 Subject: Climate change; air pollution; renewable energy; heating; fuel

4 Statement of purpose of bill as introduced: This bill proposes to establish the
5 Clean Heat Standard to reduce Vermont’s greenhouse gas emissions from the
6 thermal sector. It would be administered by the Public Utility Commission
7 with assistance from the Clean Heat Standard Technical Advisory Group.

8 An act relating to the Clean Heat Standard

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

10 Sec. 1. FINDINGS

11 The General Assembly finds:

12 (1) All of the legislative findings made in 2020 Acts and Resolves
13 No. 153, Sec. 2, the Vermont Global Warming Solutions Act of 2020, remain
14 true and are incorporated by reference here.

15 (2) Under the Vermont Global Warming Solutions Act of 2020 and 10
16 V.S.A. § 578, Vermont has a legal obligation to reduce greenhouse gas
17 emissions to specific levels by 2025, 2030, and 2050.

18 (3) The Vermont Climate Council was established under the Vermont
19 Global Warming Solutions Act of 2020 and was tasked with, among other
20 things, recommending necessary legislation to reduce greenhouse gas

1 emissions. The Initial Vermont Climate Action Plan calls for the General
2 Assembly to adopt legislation authorizing the Public Utility Commission to
3 administer the Clean Heat Standard consistent with the recommendations of
4 the Energy Action Network’s Clean Heat Standard Working Group.

5 (4) As required by the Vermont Global Warming Solutions Act of 2020,
6 the Vermont Climate Council published the Initial Vermont Climate Action
7 Plan on December 1, 2021. As noted in that plan, over one-third of Vermont’s
8 greenhouse gas emissions come from the thermal sector. Approximately 72
9 percent of Vermont’s thermal energy use is fossil-based, including 43 percent
10 from the combustion of fossil gas and propane and 29 percent from the burning
11 of heating oil.

12 (5) To meet the greenhouse gas emission reductions required by the
13 Vermont Global Warming Solutions Act of 2020, Vermont needs to transition
14 away from its current carbon-intensive building heating practices to lower-
15 carbon alternatives. It also needs to do this equitably, recognizing economic
16 effects on energy users, especially energy-burdened users; on the workforce
17 currently providing these services; and on the overall economy.

1 Sec. 2. 30 V.S.A. chapter 94 is added to read:

2 CHAPTER 94. CLEAN HEAT STANDARD

3 § 8121. CLEAN HEAT STANDARD

4 (a) The Clean Heat Standard is established. Under this program, obligated
5 parties shall reduce greenhouse gas emissions attributable to the Vermont
6 thermal sector by producing or acquiring required amounts of clean heat
7 credits to meet the greenhouse gas emission reduction obligations of the Global
8 Warming Solutions Act.

9 (b) By rule or order, the Commission shall establish or adopt a system of
10 tradeable clean heat credits for resources and projects that may be earned by
11 reducing greenhouse gas emissions qualifying for the Clean Heat Standard.

12 (c) An obligated party may obtain the required amounts of clean heat
13 credits through direct delivery of eligible clean heat measures, through
14 contracts for delivery of eligible clean heat measures, through the market
15 purchase of clean heat credits, or through delivery by an appointed statewide
16 default delivery agent.

17 (d) The Public Utility Commission shall adopt rules and may also issue
18 orders to design and implement the Clean Heat Standard.

19 § 8122. DEFINITIONS

20 As used in this chapter:

1 (1) “Clean heat credit” means a tradeable, non-tangible commodity that
2 represents the amount of greenhouse gas reduction caused by a clean heat
3 measure. The Commission shall establish a system of recognition for clean
4 heat credits pursuant to this chapter.

5 (2) “Clean heat measure” means fuels and technologies delivered and
6 installed in Vermont homes and businesses that reduce greenhouse gas
7 emissions. Clean heat measures include the implementation of advanced wood
8 heating systems, weatherization, and other thermal efficiency measures. Clean
9 heat measures shall not include switching from one fossil fuel use to another
10 fossil fuel use, nor shall they be creditable for emissions reductions that occur
11 outside Vermont. The Commission may adopt a list of acceptable actions that
12 qualify as clean heat measures.

13 (3) “Commission” means the Public Utility Commission.

14 (4) “Default delivery agent” means the entity designated by the
15 Commission to provide services that will generate tradeable clean heat credits.

16 (5) “Heating fuel” means heating oil, propane, natural gas, and
17 kerosene.

18 (6) “Low-income customer” means a customer who has a household
19 income at or below 185 percent of the current federal poverty level.

20 (7) “Obligated party” means:

21 (A) a regulated natural gas utility serving customers in Vermont,

1 (B) a wholesaler selling fossil-based heating fuel for delivery to final
2 customers in Vermont, or

3 (C) where a wholesale transaction occurs outside the jurisdiction of
4 the State, the obligated party shall be the entity that makes the first sale of the
5 fossil-based heating fuel in the State for consumption within the State.

6 § 8123. CLEAN HEAT STANDARD COMPLIANCE

7 (a) Required amounts.

8 (1) The Commission shall establish the number of clean heat credits that
9 each obligated party is required to acquire and retire each calendar year, with
10 the first requirement applying to calendar year 2024. The size of the annual
11 requirement shall grow at a pace sufficient for Vermont’s thermal sector to
12 achieve carbon dioxide equivalents (CO₂e) emission reductions equal to or
13 better than the requirements of 10 V.S.A. § 578. Annual increases in the clean
14 heat obligation between those target years shall be approximately linear.

15 (2) Annual requirements shall be expressed as a percent of each
16 obligated party’s annual sales of fossil fuels in the previous year, with the
17 annual percentages being the same for all obligated parties.

18 (3) The Commission may adjust the amount for good cause after notice
19 and opportunity for public process. Any downward adjustment shall be
20 allowed for only a short, specified period.

1 (4) To support the ability of the obligated parties to plan for the future,
2 on or before September 30, 2023, the Commission shall establish annual clean
3 heat credit requirement percentages for the ten years from 2024 through 2033.

4 (5) On or before September 30, 2027 and every three years thereafter,
5 the Commission shall extend the requirements three years, shall assess
6 emission reductions actually achieved in the thermal sector, and if necessary,
7 revise the pace of clean heat credit requirements for future years to ensure that
8 the emission reduction requirements for 2030 and 2050 will be achieved.

9 (b) Annual registration of obligated parties. Beginning in December 2023,
10 each obligated party shall register annually with the Commission on a form
11 provided by the Commission. For each obligated party that sells heating fuel
12 in Vermont, the first registration form shall be due by the final business day of
13 December, unless by that date the obligated party submits a sworn statement to
14 the Commission that it will not sell heating fuel in Vermont in the following
15 year. For any obligated party not registered by the final business day of
16 December, the first registration form shall be due 30 days after the first sale of
17 heating fuel to a location in Vermont.

18 (c) Early Action Credits. Clean heat measures that are installed in 2022 or
19 2023 and are expected to provide emission reductions after 2023 are creditable,
20 and therefore count towards the clean heat credit requirements of the obligated

1 party that acquires the credit values of the early actions, for the appropriate
2 number of years after 2023.

3 (d) Low-income customers; equitable clean heat measures.

4 (1) The Clean Heat Standard shall be designed and implemented to
5 enhance social equity by minimizing adverse impacts to low-income customers
6 and those households with the highest energy burdens. The design shall ensure
7 all customers have an equitable opportunity to participate in, and benefit from,
8 clean heat measures regardless of heating fuel used, income level, or
9 geographic location.

10 (2) A substantial portion of clean heat credits shall be sourced from
11 clean heat services provided to low-income households. To begin, the portion
12 shall be one-third of the amount needed to satisfy the annual Clean Heat
13 Standard requirement. The Commission shall have authority to change this
14 portion for good cause after notice and opportunity for public process.

15 (e) Credit banking. Beginning in 2024, the Commission shall allow an
16 obligated party that has met the required amount of clean heat in a given year
17 to retain clean heat credits in excess of that amount for application to the
18 obligated party's required amount of clean heat in one of the following years.

19 (f) Default delivery agent. An obligated party may meet its annual
20 obligation through a designated default delivery agent appointed by the
21 Commission. By rule or order, the Commission shall establish and

1 periodically update the cost per clean heat credit to be paid to the default
2 delivery agent by an obligated party that chooses this option.

3 (g) Noncompliance payment. An obligated party that fails to obtain and
4 retire the number of clean heat credits required in a given year shall make a
5 noncompliance payment to the default delivery agent appointed by the
6 Commission. The per credit amount of the noncompliance payment shall be
7 three times the amount established by the Commission under subsection (f) of
8 this section for timely per credit payments to the default delivery agent. All
9 funds received from noncompliance payments shall be used by the default
10 delivery agent to provide clean heat services to low-income customers.

11 (h) Public process. This subsection applies to the first rulemaking under
12 this section. Before filing proposed rules with the Secretary of State, the
13 Commission shall conduct a public process on the development of the
14 proposed rules that includes the following elements:

15 (1) an opportunity for potentially affected persons and members of the
16 public to submit comments and recommendations on the design and
17 implementation of the program, both in writing and at one or more public
18 meetings held for the purpose;

19 (2) after providing the opportunity for input described in subdivision (1)
20 of this subsection, publication of a draft rule; and

1 (3) an opportunity for potentially affected persons and members of the
2 public to submit comments and recommendations on the draft rule issued
3 pursuant to subdivision (2) of this subsection, both in writing and at one or
4 more public meetings held for the purpose.

5 (i) Enforcement. The requirements of this chapter and any Commission
6 rules or orders adopted to implement the provisions of this chapter may be
7 enforced by the Commission pursuant to its authority under this title. As part
8 of an enforcement order, the Commission may order penalties and injunctive
9 relief. Additionally, any statements or other representations made by obligated
10 parties related to compliance with the Clean Heat Standard are subject to the
11 provisions of the Vermont False Claims Act.

12 (j) Reports.

13 (1) For purposes of this subsection, “standing committees” refers to the
14 House Committees on Energy and Technology and on Natural Resources, Fish,
15 and Wildlife and to the Senate Committees on Finance and on Natural
16 Resources and Energy.

17 (2) On or before January 15, 2025, the Commission shall submit a
18 written report to the standing committees detailing the efforts undertaken to
19 establish the Clean Heat Standard pursuant to this chapter.

20 (3) On or before August 31 of each year following the year in which
21 rules are first adopted under this subsection, the Commission shall submit to

1 the standing committees a written report detailing the implementation and
2 operation of the Clean Heat Standard. This report shall include an assessment
3 on the equitable adoption of clean heat measures required subsection (d) of this
4 section, along with recommendations to increase participation for the most
5 energy burdened households. The provisions of 2 V.S.A. § 20(d) (expiration
6 of required reports) shall not apply to the report to be made under this
7 subsection.

8 § 8124. TRADEABLE CLEAN HEAT CREDITS

9 (a) By rule or order, the Commission shall establish or adopt a system of
10 tradeable clean heat credits that may be earned by reducing greenhouse gas
11 emissions through resources and projects qualifying for the Clean Heat
12 Standard. While credit denominations may be in simple terms for public
13 understanding and ease of use, the underlying value shall be based on units of
14 carbon dioxide equivalents (CO₂e). The system shall provide a process for the
15 recognition, approval, and monitoring of the clean heat credits.

16 (b) Clean heat credits shall be based on the CO₂e emission reductions that
17 result from delivery of eligible clean heat measures to end-use customer
18 locations in Vermont. Eligible clean heat measures delivered to or installed in
19 Vermont buildings and facilities shall include:

20 (1) thermal energy efficiency improvements and weatherization;

21 (2) the supply of sustainably sourced biofuels;

1 (3) renewable natural gas and low-emission advanced gases;

2 (4) the installation of cold-climate heat pumps or advanced wood
3 heating appliances and systems; and

4 (5) renewable energy-based district heating services.

5 (c) For pipeline renewable natural gas and other renewably generated
6 natural gas substitutes to be eligible, an obligated party shall purchase
7 renewable natural gas and its associated renewable attributes and demonstrate
8 that it has secured a contractual pathway for the physical delivery of the gas
9 from the point of injection into the pipeline to the obligated party’s delivery
10 system.

11 (d)(1) The number of clean heat credits awarded for supplying biofuels,
12 including renewable natural gas, shall be based on the net lifecycle CO₂e
13 emissions impact from burning of the biofuel minus the CO₂e emissions that
14 would have occurred at the site had the fossil fuel that the biofuel displaces
15 been burned instead.

16 (2) To promote certainty for obligated parties and clean heat providers,
17 the Commission shall, by rule or order, establish a schedule of deemed
18 emission rates for fossil fuels and biofuels. The rule shall be based on
19 transparent and accurate emissions accounting using the Argonne National
20 Laboratory GREET Model or an alternative of comparable analytical rigor.
21 The schedule may be amended based upon changes in technology and evidence

1 on emissions, but clean heat credits previously awarded shall not be adjusted
2 retroactively.

3 (e) Clean heat credits shall be “time stamped” for the year in which the
4 clean heat measure is implemented as well as each subsequent year during
5 which the measure is expected to produce emission reductions. As
6 appropriate, the number of clean heat credits may decline over the life of a
7 measure to account for growing interactions expected to occur, on average,
8 between multiple measures installed over time. Only clean heat credits with
9 the current year time stamp, and credits banked from previous years, shall be
10 eligible to satisfy the current year obligation.

11 (f) Clean heat credits can be earned only in proportion to deemed or
12 measured greenhouse gas emission reductions in facilities and processes in
13 Vermont. Other emissions offsets, whenever located, shall not be eligible
14 measures.

15 (g) Clean heat credits shall not be used to meet any other jurisdiction’s
16 clean heat standard or other jurisdiction’s carbon-reduction requirements if that
17 would result in double counting.

18 (h) All eligible clean heat measures that are physically deployed in
19 Vermont shall be eligible for credits and may be acquired and count towards an
20 obligated party’s emission reduction obligations, regardless of who creates or
21 installs them and regardless of whether their creation or installation was

1 required by other State policies and programs. This includes individual
2 initiatives, emission reductions resulting from the State’s energy efficiency
3 programs, the low-income weatherization program, and the Renewable Energy
4 Standard Tier 3 program.

5 (i) The Commission shall create a registration system to lower
6 administrative barriers to individuals and businesses seeking to register
7 qualified actions eligible to earn clean heat credits, and to facilitate the transfer
8 of such credits to obligated parties. The Commission may appoint a qualified
9 agent to operate this registry on behalf of all parties.

10 § 8125. CLEAN HEAT STANDARD TECHNICAL ADVISORY GROUP

11 (a) The Commission shall establish the Clean Heat Standard Technical
12 Advisory Group to assist the Commission in the ongoing management of the
13 Clean Heat Standard. Its duties shall include:

14 (1) establishing and revising the carbon-dioxide-equivalent (CO₂e)
15 emission reduction credit values for different fuel types;

16 (2) assessing the sustainability of the production of biofuels;

17 (3) setting the lifespan length of clean heat measures;

18 (4) establishing credit values for each year over a measure’s life,

19 including adjustments to account for increasing interactions between clean heat
20 measures over time so as to not double-count emission reductions;

1 (5) facilitating the program’s coordination with other energy programs,
2 including the Renewable Energy Standard Tier 3 program; and

3 (6) any other matters referred to the Clean Heat Standard Technical
4 Advisory Group by the Commission.

5 (b) Members of the Clean Heat Standard Technical Advisory Group shall
6 be appointed by the Commission and at a minimum shall include at least one
7 representative from each of the following groups: the obligated parties, the
8 Department of Public Service, Efficiency Vermont, the electric utilities, and
9 environmental organizations.

10 (c) The Commission shall hire a third-party consultant responsible for
11 developing clean heat measure characterizations and relevant assumptions.
12 The Clean Heat Standard Technical Advisory Group shall provide input and
13 feedback on the consultant’s work.

14 (d) Emission reduction assumptions developed by the consultant shall be
15 reviewed and approved annually by the Commission. In reviewing the
16 consultant’s work, the Commission shall provide a public comment period on
17 the work. The Commission may approve or adjust the consultant’s work as it
18 deems necessary based on its review and the public comments received.

1 Sec. 3. PUBLIC UTILITY COMMISSION IMPLEMENTATION

2 (a) Commencement. On or before August 31, 2022, the Public Utility
3 Commission (Commission) shall commence a proceeding to implement Sec. 2
4 (Clean Heat Standard) of this act.

5 (b) Notice; comment; workshop. The proceeding shall include one or more
6 workshops to solicit the input of potentially affected parties and the public.
7 The Commission shall provide notice of the workshops on its website and
8 directly to the Department of Public Service, Vermont’s fuel wholesalers and
9 retail fuel suppliers, Renewable Energy Vermont, business organizations such
10 as the Associated Industries of Vermont, environmental and consumer
11 advocacy organizations such as the Vermont Natural Resources Council and
12 the Vermont Public Interest Research Group, and to any other person that
13 requests direct notice or to whom the Commission may consider direct notice
14 appropriate. The Commission also shall provide an opportunity for submission
15 of written comments, which the notice shall include.

16 (c) Order. On or before July 1, 2023, the Commission shall issue an order
17 to take effect on January 1, 2024 that initially implements Sec. 2 of this act.

18 (d) Consultant. On or before January 15, 2023, the Commission shall
19 contract with a consultant to assist with implementation of 30 V.S.A. § 8125.

20 (e) Funding. On or before January 15, 2023, the Commission shall report
21 to the General Assembly on suggested revenue streams that may be used or

1 created to fund the Commission’s administration of the Clean Heat Standard
2 program.

3 Sec. 4. PUBLIC UTILITY COMMISSION POSITIONS;

4 APPROPRIATION

5 (a) The following new positions are created at the Public Utility
6 Commission for the purpose of carrying out this act:

7 (1) one (1) permanent exempt Staff Attorney 3;

8 (2) one (1) permanent exempt analyst; and

9 (3) one (1) limited-service classified analyst.

10 (b) The sum of \$600,000.00 is appropriated to the Public Utility

11 Commission from the General Fund in fiscal year 2023 for the positions

12 established in subsection (a) of this section, for the consultant required by

13 Sec. 3 of this act, and for additional operating costs required to implement the

14 Clean Heat Standard.

15 Sec. 5. EFFECTIVE DATE

16 This act shall take effect on passage.