

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 and then retiring required amounts of
7 clean heat credits to meet the greenhouse gas emission reduction obligations of
8 the Global Warming Solutions Act.

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

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

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

20 § 8122. DEFINITIONS

21 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 fuel 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) “Entity” means any individual, trustee, agency, partnership,
17 association, corporation, company, municipality, political subdivision, or other
18 legal entity.

19 (6) “Heating fuel” means fossil-based heating fuel, including oil,
20 propane, natural gas, coal, and kerosene.

1 (7) “Low-income customer” means a customer with a household income
2 at or below 185 percent of the current federal poverty level.

3 (8) “Obligated party” means:

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

5 (B) a wholesaler selling fossil based heating fuel for delivery to final
6 customers in Vermont, or

7 (C) where a wholesale transaction occurs outside the jurisdiction of
8 the State, the obligated party shall be the entity that makes the first sale of the
9 fossil based heating fuel in the State for consumption within the State for other
10 heating fuels, the entity that makes the first sale of the heating fuel into or in
11 the State for consumption within the State.

12 § 8123. CLEAN HEAT STANDARD COMPLIANCE

13 (a) Required amounts.

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

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

4 (3) The Commission may adjust the annual requirements amount for
5 good cause after notice and opportunity for public process. Good cause may
6 include negative undue adverse financial impacts on customers and high credit
7 prices a shortage of clean heat credits. Any downward adjustment shall be
8 allowed for only a short, specified period.

9 (4) To support the ability of the obligated parties to plan for the future,
10 on or before September 30, 2023, the Commission shall establish annual clean
11 heat credit requirement percentages for the 10 years from 2024 through 2033,
12 with the requirements being updated so 10 years’ worth of requirements are
13 always available.

14 (5) On or before September 30, 2027 and every three years thereafter,
15 the Commission shall extend the requirements three years, shall assess
16 emission reductions actually achieved in the thermal sector, and if necessary,
17 revise the pace of clean heat credit requirements for future years to ensure that
18 the emission reduction requirements of 10 V.S.A. § 578(a) for 2030 and 2050
19 will be achieved.

20 (b) Annual registration.

1 (1) Each entity that sells heating fuel in Vermont shall register annually
2 with the Commission on a form provided by the Commission. The
3 Commission shall maintain a list of registered entities on their website that
4 contains the following information: legal name, doing business as name if
5 applicable, municipality, state, and type of heating fuel sold. The public list
6 shall not include fuel volumes purchased or sold.

7 (2) Beginning in December 2023, each obligated party shall register
8 annually with the Commission on a form provided by the Commission for
9 participation in the Clean Heat Standard. For each obligated party that sells
10 heating fuel in or into Vermont, the first registration form shall be due by the
11 final business day of December, unless by that date the obligated party submits
12 a sworn statement to the Commission that it will not sell heating fuel in
13 Vermont in the following year. For any obligated party not registered by the
14 final business day of December, the first registration form shall be due 30 days
15 after the first sale of heating fuel to a location in Vermont. Clean heat
16 requirements and credits transfer to entities that acquire an obligated party.

17 (c) Early Action Credits. Beginning in 2022, clean heat measures that are
18 installed in 2022 and are expected to provide emission reductions after 2023
19 are creditable, and therefore count towards the future clean heat credit
20 requirements of the obligated party that acquires the credit values of the early
21 actions, for the appropriate number of years after 2023. Upon the

1 establishment of the clean heat credit system, entities may register credits for
2 actions taken starting in 2022.

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 customers. To begin,
12 the portion shall be one-third of each obligated party's required amount needed
13 to satisfy the annual Clean Heat Standard requirement. The Commission shall
14 have authority to change this portion for good cause after notice and
15 opportunity for public process.

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

20 (f) Default delivery agent.

1 (1) An obligated party may meet its annual obligation through a
2 designated default delivery agent appointed by the Commission. The default
3 delivery agent shall deliver creditable clean heat measures to Vermont homes
4 and businesses when:

5 (A) an obligated party chooses to assign its obligation to the default
6 provider; or

7 (B) an obligated party fails to produce or acquire the amount of clean
8 heat credits.

9 (2) The Commission shall designate the default delivery agent. The
10 default delivery agent shall be a single statewide entity hired for a multi-year
11 period through a competitive procurement process.

12 (3) By rule or order, the Commission shall adopt and periodically update
13 the cost per clean heat credit to be paid to the default delivery agent by an
14 obligated party that chooses this option. Changes to the cost shall take effect
15 no less than 180 days after adopted.

16 (g) Noncompliance payment. The Commission shall direct an obligated
17 party that fails to obtain and retire the number of clean heat credits required in
18 a given year, including the required portion from low-income customers, shall
19 to make a noncompliance payment to the default delivery agent appointed by
20 the Commission. The per credit amount of the noncompliance payment shall
21 be three times the amount established by the Commission under subsection (f)

1 of this section for timely per credit payments to the default delivery agent. All
2 funds received from noncompliance payments shall be used by the default
3 delivery agent to provide clean heat services to low-income customers.

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

8 (1) an opportunity for potentially affected persons and members of the
9 public to submit comments and recommendations on the design and
10 implementation of the ~~program~~ Clean Heat Standard, both in writing and at one
11 or more public meetings held for the purpose;

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

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

18 (i) Enforcement. The requirements of this chapter and any Commission
19 rules or orders adopted to implement the provisions of this chapter may be
20 enforced by the Commission pursuant to its authority under this title. As part
21 of an enforcement order, the Commission may order penalties and injunctive

1 relief. Additionally, any statements or other representations made by obligated
2 parties related to compliance with the Clean Heat Standard are subject to the
3 provisions of the Vermont False Claims Act. The Commission shall establish
4 a process for verification of data provided by obligated parties.

5 (j) Reports.

6 (1) For purposes of this subsection, “standing committees” refers to the.

7 (2) On or before January 15, 2025, After the adoption of the order
8 implementing this chapter, the Commission shall submit a written report to the
9 standing committees detailing the efforts undertaken to establish the Clean
10 Heat Standard pursuant to this chapter.

11 (3) On or before August 31 of each year following the year in which
12 rules are first adopted under this subsection, the Commission shall submit to
13 the standing committees a written report detailing the implementation and
14 operation of the Clean Heat Standard. This report shall include an assessment
15 on the equitable adoption of clean heat measures required subsection (d) of this
16 section, along with recommendations to increase participation for the most
17 energy burdened households. The provisions of 2 V.S.A. § 20(d) (expiration
18 of required reports) shall not apply to the report to be made under this
19 subsection.

1 § 8124. TRADEABLE CLEAN HEAT CREDITS

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

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

- 14 (1) thermal energy efficiency improvements and weatherization;
15 (2) the supply of sustainably sourced biofuels;
16 (3) renewable natural gas and low-emission advanced gases;
17 (4) the installation of cold-climate heat pumps or advanced wood
18 heating appliances and systems; and
19 (5) renewable energy-based district heating services.

20 (c) For pipeline renewable natural gas and other renewably generated
21 natural gas substitutes produced outside the State to be eligible, an obligated

1 party shall purchase renewable natural gas and its associated renewable
2 attributes and demonstrate that it has secured a contractual pathway for the
3 physical delivery of the gas from the point of injection into the pipeline to the
4 obligated party’s delivery system.

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

10 (2) To promote certainty for obligated parties and clean heat providers,
11 the Commission shall, by rule or order, establish a schedule of deemed
12 emission rates for fossil fuels and biofuels. The rule shall be based on
13 transparent and accurate emissions accounting using the Argonne National
14 Laboratory GREET Model or an alternative of comparable analytical rigor.
15 The schedule may be amended based upon changes in technology or evidence
16 on emissions, but clean heat credits previously awarded shall not be adjusted
17 retroactively.

18 (e) Clean heat credits shall be “time stamped” for the year in which the
19 clean heat measure is implemented directly delivered as well as each
20 subsequent year during which the measure is expected to produce emission
21 reductions. As appropriate, the number of clean heat credits may decline over

1 the life of a measure to account for growing interactions expected to occur, on
2 average, between multiple measures installed over time. Only clean heat
3 credits with the current year time stamp, and credits banked from previous
4 years, shall be eligible to satisfy the current year obligation.

5 (f) Clean heat credits can be earned only in proportion to the deemed or
6 measured thermal sector greenhouse gas emission reductions in facilities and
7 processes achieved by a clean heat measure directly delivered in Vermont.
8 Other emissions offsets, wherever located, shall not be eligible measures.

9 ~~(g) Clean heat credits shall not be used to meet any other jurisdiction's~~
10 ~~clean heat standard or other jurisdiction's carbon reduction requirements if that~~
11 ~~would result in double counting.~~

12 (h) All eligible clean heat measures that are physically deployed directly
13 delivered in Vermont shall be eligible for clean heat credits and may be
14 acquired retired to and count towards an obligated party's emission reduction
15 obligations, regardless of who creates or installs delivers them and regardless
16 of whether their creation or installation delivery was required by other State
17 policies and programs. This includes individual initiatives, emission
18 reductions resulting from the State's energy efficiency programs, the low-
19 income weatherization program, and the Renewable Energy Standard Tier 3
20 program.

1 (i) The Commission shall establish a process for verification of clean heat
2 measures and credits awarded.

3 (j) The Commission shall create a registration system to lower
4 administrative barriers to individuals and businesses seeking to register
5 qualified actions eligible to earn clean heat credits, and to facilitate the transfer
6 of such credits to obligated parties. The Commission may appoint a qualified
7 agent to operate this registry on behalf of all parties. The system shall require
8 entities to submit at the least the following information to receive the credit:
9 location of clean heat measure, whether customer is low-income, type of
10 property where measure was installed or sold, and type of clean heat measure.

11 § 8125. CLEAN HEAT STANDARD TECHNICAL ADVISORY GROUP

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

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

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

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

19 (4) establishing credit values for each year over a clean heat measure's
20 life, including adjustments to account for increasing interactions between clean
21 heat 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, Department of Environmental Conservation,
9 Efficiency Vermont, the electric utilities, and environmental organizations.

10 (c) The Commission shall hire a third-party consultant responsible for
11 developing clean heat measure characterizations and relevant assumptions,
12 including CO2e lifecycle emissions analyses. The Clean Heat Standard
13 Technical Advisory Group shall provide input and feedback on the
14 consultant’s work.

15 (d) Emission reduction assumptions developed by the consultant shall be
16 reviewed and approved annually by the Commission. In reviewing the
17 consultant’s work, the Commission shall provide a public comment period on
18 the work. The Commission may approve or adjust the consultant’s work as it
19 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 advocates Renewable Energy Vermont,
10 business organizations such as the Associated Industries of Vermont,
11 environmental and consumer advocacy organizations such as the Vermont
12 Natural Resources Council and the Vermont Public Interest Research Group,
13 organizations that serve with low and moderate income Vermonters,
14 organizations that serve older Vermonters, entities that provide weatherization
15 services, energy transition providers, regional planning commissions,
16 municipal energy commissions, community action agencies, environmental
17 justice organizations, affordable housing advocates, the Office of Economic
18 Opportunity, and to any other person that requests direct notice or to whom the
19 Commission may consider direct notice appropriate. The Commission also
20 shall provide an opportunity for submission of written comments, which the
21 notice shall include.

1 (c) Order. On or before July 1, 2024, the Commission shall issue an order
2 to take effect on January 1, 2025 that initially implements Sec. 2 of this act.

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

5 (e) Funding. On or before January 15, 2023, the Commission shall report
6 to the General Assembly on suggested revenue streams that may be used or
7 created to fund the Commission’s administration of the Clean Heat Standard
8 program.

9 (f) Reports. On or before January 31, 2023 and January 31, 2024, the
10 Commission shall submit a written report to the House Committees on Energy
11 and Technology and on Natural Resources, Fish, and Wildlife and to the
12 Senate Committees on Finance and on Natural Resources and Energy detailing
13 the efforts undertaken to establish the Clean Heat Standard pursuant to this
14 chapter

15 Sec. 4. PUBLIC UTILITY COMMISSION POSITIONS;

16 APPROPRIATION

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

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

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

21 (3) one (1) limited-service exempt analyst.

1 (b) The sum of \$600,000.00 is appropriated to the Public Utility
2 Commission from the General Fund in fiscal year 2023 for the positions
3 established in subsection (a) of this section, for the consultant required by
4 Sec. 3 of this act, and for additional operating costs required to implement the
5 Clean Heat Standard, including marketing and public outreach for Sec. 3 of
6 this act.

7 Sec. 5. EFFECTIVE DATE

8 This act shall take effect on passage.

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