

S.5

Commented [A1]: The PUC does not take a position on S.5. Rather, the comments and redlines below reflect our efforts to improve the implementation of S.5, should the Legislature choose to enact it.

1
2 Introduced by Senators Bray, Baruth, Campion, Clarkson, Cummings, Gulick,
3 Hardy, MacDonald, McCormack, Perchlik, Ram Hinsdale,
4 Watson and White

5 Referred to Committee on

6 Date:

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

8 Statement of purpose of bill as introduced: This bill proposes to establish the
9 Clean Heat Standard to reduce Vermont's greenhouse gas emissions from the
10 thermal sector. The Clean Heat Standard shall be administered by the Public
11 Utility Commission with assistance from the Clean Heat Standard Technical
12 Advisory Group and the Equity Advisory Group.

13 An act relating to affordably meeting the mandated greenhouse gas
14 reductions for the thermal sector through electrification, decarbonization,
15 efficiency, and weatherization measures

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

17 Sec. 1. SHORT TITLE

18 This act shall be known and may be cited as the "Affordable Heat Act."

19 Sec. 2. FINDINGS

20 The General Assembly finds:

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

4 (2) Under the GWSA and 10 V.S.A. § 578, Vermont has a legal
5 obligation to reduce greenhouse gas emissions to specific levels by 2025, 2030,
6 and 2050.

7 (3) The Vermont Climate Council was established under the GWSA and
8 was tasked with, among other things, recommending necessary legislation to
9 reduce greenhouse gas emissions. The Initial Vermont Climate Action Plan
10 calls for the General Assembly to adopt legislation authorizing the Public
11 Utility Commission to administer the Clean Heat Standard consistent with the
12 recommendations of the Energy Action Network’s Clean Heat Standard
13 Working Group.

14 (4) As required by the GWSA, the Vermont Climate Council published
15 the Initial Vermont Climate Action Plan on December 1, 2021. As noted in
16 that plan, over one-third of Vermont’s greenhouse gas emissions in 2018 came
17 from the thermal sector. In that year, approximately 72 percent of Vermont’s
18 thermal energy use was fossil based, including 29 percent from the burning of
19 heating oil, 24 percent from fossil gas, and 19 percent from propane.

20 (5) To meet the greenhouse gas emission reductions required by the
21 GWSA, Vermont needs to transition away from its current carbon-intensive

1 building heating practices to lower-carbon alternatives. It also needs to do this
2 equitably, recognizing economic effects on energy users, especially energy-
3 burdened users; on the workforce currently providing these services; and on
4 the overall economy.

5 [\(6\) Vermonters have an unprecedented opportunity to invest in eligible](#)
6 [clean heat measures with funding from new federal laws including the](#)
7 [Infrastructure Investment and Jobs Act of 2021 and the Inflation Reduction Act](#)
8 [of 2022.](#)

9 Sec. 3. 30 V.S.A. chapter 94 is added to read:

10 CHAPTER 94. CLEAN HEAT STANDARD

11 § 8121. INTENT

12 It is the intent of the General Assembly that the Clean Heat Standard be
13 designed and implemented in a manner that achieves Vermont's thermal sector
14 greenhouse gas emissions reductions necessary to meet the requirements of
15 10 V.S.A. §§ 578(a)(2) and (3), minimizes costs to customers, and recognizes
16 that affordable heating is essential for Vermonters. It shall minimize adverse
17 impacts to customers with low income and moderate income and those
18 households with the highest energy burdens.

19 § 8122. CLEAN HEAT STANDARD

20 (a) The Clean Heat Standard is established. Under this program, obligated
21 parties shall reduce greenhouse gas emissions attributable to the Vermont

1 thermal sector by retiring required amounts of clean heat credits to meet the
2 thermal sector portion of the greenhouse gas emission reduction obligations of
3 the Global Warming Solutions Act.

4 (b) By rule or order, the Commission shall establish or adopt a system of
5 tradeable clean heat credits earned from the delivery of clean heat measures
6 that reduce greenhouse gas emissions.

7 (c) An obligated party may obtain the required amount of clean heat credits
8 through delivery of eligible clean heat measures, through contracts for delivery
9 of eligible clean heat measures, through the market purchase of clean heat
10 credits, or through delivery of eligible clean heat measures by a designated
11 statewide default delivery agent.

12 (d) The ~~Public Utility~~ Commission shall adopt rules and may issue orders
13 to implement and enforce the Clean Heat Standard program. The requirement
14 to adopt rules does not in any way impair the Commission's authority to issue
15 orders or take any other actions, both before and after final rules take effect, to
16 implement and enforce the Clean Heat Standard. The Commission's rules may
17 include a provision that allows the Commission to revise its Clean Heat
18 Standard rules by order of the Commission without the revisions being subject
19 to the rulemaking requirements of the Vermont Administrative Procedure Act,
20 as long as the Commission provides notice of any proposed changes, allows for
21 a 30-day comment period, and responds to all comments received on the

Commented [A2]: For a completely new program, we will likely discover that improvements and adjustments are needed, and we may need to move quickly to make these changes.

1 proposed change. Any such order shall be subject to appeal to the Vermont
2 Supreme Court under 30 V.S.A. § 12, and the Commission must immediately
3 file any such orders and a redline and clean version of the revised rules with
4 the Secretary of State, with notice simultaneously provided to the House
5 Committee on Environment and Energy and the Senate Committees on
6 Finance and on Natural Resources and Energy.

7 § 8123. DEFINITIONS

8 As used in this chapter:

9 (1) “Carbon intensity value” means the amount of lifecycle greenhouse
10 gas emissions per unit of energy of fuel expressed in grams of carbon dioxide
11 equivalent per megajoule (gCO₂e/MJ).

12 (2) “Clean heat credit” means a tradeable, nontangible commodity that
13 represents the amount of greenhouse gas reduction attributable to a clean heat
14 measure. The Commission shall establish a system of management for clean
15 heat credits pursuant to this chapter.

16 (3) “Clean heat measure” means fuel and technologies delivered and
17 installed to end-use customers in Vermont that reduce greenhouse gas
18 emissions from the thermal sector. Clean heat measures shall not include
19 switching from using one fossil fuel to another fossil fuel. The Commission
20 may adopt a list of acceptable actions that qualify as clean heat measures.

21 (4) “Commission” means the Public Utility Commission.

1 (5) “Default delivery agent” means the entity designated by the
2 Commission to provide services that generate clean heat measures.

3 (6) “Energy burden” means the annual spending on thermal energy as a
4 percentage of household income.

5 (7) “Entity” means any individual, trustee, agency, partnership,
6 association, corporation, company, municipality, political subdivision, or any
7 other form of organization.

8 (8) “Fuel pathway” means a detailed description of all stages of fuel
9 production and use for any particular fuel, including feedstock generation or
10 extraction, production, transportation, distribution, and combustion of the fuel
11 by the consumer. The fuel pathway is used in the calculation of the carbon
12 intensity value and lifecycle greenhouse gas emissions of each fuel.

13 (9) “Heating fuel” means fossil-based heating fuel, including oil,
14 propane, natural gas, coal, and kerosene.

15 (10) “Obligated party” means:

16 (A) a regulated natural gas utility serving customers in Vermont; or

17 (B) for other heating fuels, the entity that makes the first sale of the
18 heating fuel into or in the State for consumption within the State.

19 (11) “Thermal sector” has the same meaning as the “Residential,
20 Commercial and Industrial Fuel Use” sector as used in the Vermont
21 Greenhouse Gas Emissions Inventory and Forecast.

1 § 8124. CLEAN HEAT STANDARD COMPLIANCE

2 (a) Required amounts.

3 (1) The Commission shall establish the number of clean heat credits that
4 each obligated party is required to retire each calendar year. The size of the
5 annual requirement shall be set at a pace sufficient for Vermont's thermal
6 sector to achieve lifecycle carbon dioxide equivalent (CO₂e) emission
7 reductions consistent with the requirements of 10 V.S.A. §§ 578(a)(2) and (3)
8 expressed as lifecycle greenhouse gas emissions pursuant to subsection 8125(f)
9 of this title.

10 (2) Annual requirements shall be expressed as a percent of each
11 obligated party's contribution to the thermal sector's lifecycle CO₂e emissions
12 in the previous year with the annual percentages being the same for all parties.
13 To ensure understanding among obligated parties, the Commission shall
14 publicly provide a description of the annual requirements in plain terms.

15 (3) To support the ability of the obligated parties to plan for the future,
16 the Commission shall establish and update annual clean heat credit
17 requirements for the next 10 years. Every three years, the Commission shall
18 extend the requirements three years; shall assess emission reductions actually
19 achieved in the thermal sector; and, if necessary, revise the pace of clean heat
20 credit requirements for future years to ensure that the thermal sector portion of

1 the emission reduction requirements of 10 V.S.A. §§ 578(a)(2) and (3) for
2 2030 and 2050 will be achieved.

3 (4) The Commission may temporarily adjust the annual requirements for
4 good cause after notice and opportunity for public process. Good cause may
5 include a shortage of clean heat credits or undue adverse financial impacts on
6 particular customers or demographic segments.

7 (b) Annual registration.

8 (1) Each entity that sells heating fuel into or in Vermont shall register
9 annually with the Commission. The first registration deadline is January 31,
10 2024, and the ~~by an~~ annual deadline shall remain January 31 of each year
11 unless a different deadline is established by the Commission. The form and
12 information required in the registration shall be determined by the Commission
13 and shall include all data necessary to establish annual requirements under this
14 chapter. The Commission shall use the information provided in the
15 registration to determine whether the entity shall be considered an obligated
16 party and the amount of its annual requirement.

17 (2) At a minimum, the Commission shall require registration
18 information to include legal name; doing business as name, if applicable;
19 municipality; state; types of heating fuel sold; and the volume of sales of
20 heating fuels into or in the State for final sale or consumption in the State in

1 the calendar year immediately preceding the calendar year in which the entity
2 is registering with the Commission.

3 (3) The Vermont Department of Taxes shall annually provide a list of
4 entities that pay the fuel tax pursuant to 33 V.S.A. §§ 2503(a)(1) and (2).

5 (3) Each year, and not later than 30 days following the annual
6 registration deadline established by the Commission, the Commission shall
7 share complete registration information of obligated parties with the Agency of
8 Natural Resources and the Department of Public Service for purposes of
9 conducting the Vermont Greenhouse Gas Emissions Inventory and Forecast
10 and meeting the requirements of 10 V.S.A. § 591(b)(3).

11 (4) The Commission shall maintain, and update annually, a list of
12 registered entities on its website that contains the required registration
13 information, except that the public list shall not include heating fuel volumes
14 reported.

15 (5) For any entity not registered as of January 31, 2024, the first
16 registration form shall be due 30 days after the first sale of heating fuel to a
17 location in Vermont.

18 (6) Clean heat requirements shall transfer to entities that acquire an
19 obligated party.

20 (7) Entities that cease to operate shall retain their clean heat requirement
21 for their final year of operation.

Commented [A3]: We don't currently regulate these entities. The registration requirement should give us what we need, but the Tax Department info (which they already have) provides additional information that is helpful. In light of potential privacy concerns, the Legislature likely needs to order the Tax Department to provide us with the list.

An important note is that the Tax Department's list will only cover entities making retail sales, not wholesalers. The need to regulate wholesalers (not currently regulated by us and not likely known by the Tax Department) will cause challenges for implementing the Clean Heat Standard. We have concerns about these challenges.

1 (c) Early action credits. Beginning on January 1, 2023, clean heat
2 measures that are installed and provide emission reductions are creditable and
3 shall count towards the future clean heat credit requirements of an obligated
4 party. Upon the establishment of the clean heat credit system, entities may
5 register credits for actions taken starting in 2023.

6 (d) Equitable distribution of clean heat measures.

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

13 (2) Of their annual requirement, each obligated party shall retire at least
14 16 percent from customers with low income and 16 percent from customers
15 with moderate income. At least one-half of these credits shall be from
16 installed clean heat measures that require capital investments in homes and;
17 have measure lives of 10 years or more, and are estimated by the Technical
18 Advisory Group to lower annual energy bills. Examples ~~shall~~ include
19 weatherization improvements and installation of heat pumps, heat pump water
20 heaters, and advanced wood heating systems. The Commission may identify
21 additional measures that qualify as installed measures.

1 (3) The definitions of customer with low income and customer with
2 moderate income shall be set by the Commission in consultation with the
3 Equity Advisory Group and in alignment with other existing definitions.

4 (4) The Commission may consider frontloading the credit requirements
5 for customers with low income and moderate income so that the greatest
6 proportion of clean heat measures reach Vermonters with low income and
7 moderate income in the earlier years.

8 (5) In order to best serve customers with low income and moderate
9 income, the Commission shall have authority to change the percentages
10 established in subdivision (2) of this subsection and the criteria used to define
11 customers with low income and moderate income for good cause after notice
12 and opportunity for public process.

13 (6) In determining whether to exceed the minimum percentages of clean
14 heat measures that must be delivered to customers with low income and
15 moderate income, the Commission shall take into account participation in other
16 government-sponsored low-income and moderate-income weatherization
17 programs.

18 (7) A clean heat measure delivered to a customer qualifying for a
19 government-sponsored, low-income energy subsidy shall qualify for clean heat
20 credits required by subdivision (2) of this subsection.

1 (e) Credit banking. The Commission shall allow an obligated party that
2 has met its annual requirement in a given year to retain clean heat credits in
3 excess of that amount for future sale or application to the obligated party's
4 annual requirements in future compliance periods, as determined by the
5 Commission.

6 (f) Default delivery agent.

7 (1) An obligated party may meet its annual requirement through a
8 designated default delivery agent appointed by the Commission. The default
9 delivery agent shall deliver creditable clean heat measures to Vermont homes
10 and businesses when:

11 (A) an obligated party chooses to assign its annual requirement (in
12 full or in part) to the default delivery agent; or

13 (B) an obligated party fails to produce or acquire its required amount
14 of clean heat credits as described in subdivision (g)(2) of this section.

15 (2) The Commission shall designate the default delivery agent. The
16 default delivery agent shall be a single statewide entity capable of providing a
17 variety of clean heat measures ~~and contracted for a multiyear period through a~~
18 ~~competitive procurement process.~~ The entity selected as the default delivery
19 agent may also be a market participant but shall not be an obligated party. The
20 designation of an entity under this subdivision may be by order of appointment
21 or contract. A designation, whether by order of appointment or by contract.

Commented [A4]: The Legislature should consider making the default delivery agent the presumed method for obligated entities meeting their annual requirements. The default delivery agent process could be expanded to resemble the demand resources plans that the energy efficiency utilities undertake every 3 years. This is a model that the Commission is familiar with and that taps into our expertise in regulating utilities.

If the Legislature is open to this change, we are happy to work with Legislative Counsel on redlines to implement this change. For instance, instead of saying that an obligated party "may meet" its annual requirement through a default delivery agent, we would recommend saying that obligated entities "must meet" their annual requirements this way unless the Commission approves an alternative method.

1 may only be issued after notice and opportunity for hearing. An order of
2 appointment shall be for a limited duration not to exceed 12 years, although an
3 entity may be reappointed by order or contract. An order of appointment may
4 include any conditions and requirements that the Commission deems
5 appropriate to promote the public good. For good cause, after notice and
6 opportunity for hearing, the Commission may amend or revoke an order of
7 appointment.

8 (3) By rule or order, the Commission shall adopt annually the cost per
9 clean heat credit to be paid to the default delivery agent by an obligated party
10 that chooses this option. In adjusting the default delivery agent credit cost, the
11 Commission shall consider the default delivery agent's anticipated costs to
12 deliver clean heat measures and costs borne by customers, among other factors
13 determined by the Commission. Changes to the cost of credits shall take effect
14 not less than 180 days after adoption.

15 (4) All funds received from noncompliance payments pursuant to
16 subdivision (g)(2) of this section shall be used by the default delivery agent to
17 provide clean heat measures to customers with low income.

18 (g) Enforcement.

19 (1) The Commission shall have the authority to enforce the requirements
20 of this chapter and any rules or orders adopted to implement the provisions of
21 this chapter. The Commission may use its existing authority under this title.

Commented [A5]: This language is taken directly from 30 VSA § 209(d)(4) regarding the appointment of an energy efficiency utility.

1 As part of an enforcement order, the Commission may order penalties and
2 injunctive relief.

3 (2) The Commission ~~may~~ shall order an obligated party that fails to
4 retire the number of clean heat credits required in a given year, including the
5 required amounts from customers with low income and moderate income, to
6 make a noncompliance payment to the default delivery agent. The per-credit
7 amount of the noncompliance payment shall be three times the amount
8 established by the Commission under subsection (f) of this section for timely
9 per-credit payments to the default delivery agent.

10 (3) Any statements or other representations made by obligated parties
11 related to compliance with the Clean Heat Standard are subject to the
12 Commission's enforcement authority, including the power to investigate and
13 assess penalties, under this title.

14 (4) The Commission's enforcement authority does not in any way
15 impede the enforcement authority of other entities, such as the Attorney
16 General's Office.

17 (5) In addition to any other applicable penalties and remedies, failure to
18 register with the Commission as required by this section is a per se violation of
19 this section and of the Vermont Consumer Protection Act's prohibition on
20 unfair and deceptive acts. The fact that an entity may not have known it was
21 required to register with the Commission shall not be a defense.

Commented [A6]: We have not run this by the Consumer Protection Division of the AGO, so they will need to be consulted on this.

1 (h) Records. The Commission shall establish requirements for the types of
2 records to be submitted by obligated parties, a record retention schedule for
3 required records, and a process for verification of records and data submitted in
4 compliance with the requirements of this chapter.

5 (i) Reports.

6 (1) As used in this subsection, “standing committees” means the House
7 Committee on ~~Natural Resources, Fish, and Wildlife~~ Environment and Energy
8 and the Senate Committees on Finance and on Natural Resources and Energy.

9 (2) After the adoption of the rules implementing this chapter, the
10 Commission shall submit a written report to the standing committees detailing
11 the efforts undertaken to establish the Clean Heat Standard pursuant to this
12 chapter.

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

Commented [A7]: If the evaluation process envisioned by this bill is similar to that used for the energy efficiency utilities and the distribution utilities, the process is unlikely to conclude before August. For the Commission to meaningfully evaluate the results and make assessments and recommendations, especially in consultation with advisory groups, these reports will take more time.

1 § 8125. TRADEABLE CLEAN HEAT CREDITS

2 (a) Credits established. By rule or order, the Commission shall establish or
3 adopt a system of tradeable clean heat credits that are earned by reducing
4 greenhouse gas emissions through the delivery of clean heat measures. While
5 credit denominations may be in simple terms for public understanding and ease
6 of use, the underlying value shall be based on units of carbon dioxide
7 equivalent (CO₂e). The system shall provide a process for the recognition,
8 approval, and monitoring of the clean heat credits. The Department of Public
9 Service shall perform the verification of clean heat credit claims and submit
10 results of the verification and evaluation to the Commission annually.

11 (b) Credit values. Clean heat credits shall be based on the accurate and
12 verifiable lifecycle CO₂e emission reductions in Vermont's thermal sector that
13 result from the delivery of eligible clean heat measures to end-use customer
14 locations into or in Vermont.

15 (1) For clean heat measures that are installed, credits will be created for
16 each year of the expected life of the installed measure. The annual value of the
17 clean heat credits for installed measures in each year shall be equal to the
18 lifecycle CO₂e emissions of the fuel use that is avoided in a given year
19 because of the installation of the measure, minus the lifecycle emissions of the
20 fuel that is used instead in that year.

1 (2) For clean heat measures that are fuels, clean heat credits will be
2 created only for the year the fuel is delivered to the end-use customer. The
3 value of the clean heat credits for fuels shall be the lifecycle CO2e emissions
4 of the fuel use that is avoided, minus the lifecycle CO2e emissions of the fuel
5 that is used instead.

6 (c) List of eligible measures. Eligible clean heat measures delivered to or
7 installed in Vermont ~~shall~~ may include:

8 (1) thermal energy efficiency improvements and weatherization;

9 (2) cold-climate air, ground source, and other heat pumps, including
10 district, network, grid, microgrid, and building geothermal systems;

11 (3) heat pump water heaters;

12 (4) controlled electric water heaters;

13 (5) solar hot water systems;

14 (6) electric appliances providing thermal end uses;

15 (7) ~~renewable electricity systems paired with heat pumps or electric~~
16 ~~appliances providing thermal end uses, including on-site and community scale~~
17 ~~renewable electricity systems;~~

18 (8) advanced wood heating;

19 (9) noncombustion or renewable energy-based district heating services;

20 (10) the supply of sustainably sourced biofuels; and

21 (11) the supply of green hydrogen.

Commented [A8]: Note that nearly all of these measures are now eligible for significant amounts of federal funding through the IIJA and IRA.

Commented [A9]: This provision should be deleted. The reason is that, while a heat pump or other approved appliance would qualify for a clean heat credit, any emissions reductions from an associated renewable energy system that is grid-connected would be accounted for in the electric sector, not the thermal sector.

1 (d) Renewable natural gas. For pipeline renewable natural gas and other
2 renewably generated natural gas substitutes to be eligible, an obligated party
3 shall purchase renewable natural gas and its associated renewable attributes
4 and demonstrate that it has secured a contractual pathway for the physical
5 delivery of the gas from the point of injection into the pipeline to the obligated
6 party's delivery system.

7 (e) Carbon intensity of fuels.

8 (1) To be eligible as a clean heat measure a liquid or gaseous clean heat
9 measure shall have a carbon intensity value as follows:

10 (A) below 80 in 2025;

11 (B) below 60 in 2030; and

12 (C) below 20 in 2050, provided the Commission may allow liquid
13 and gaseous clean heat measures with a carbon intensity value greater than 20
14 if excluding them would be impracticable based on the characteristics of
15 Vermont's buildings, the workforce available in Vermont to deliver lower
16 carbon intensity clean heat measures, cost, or the effective administration of
17 the Clean Heat Standard.

18 (2) The Commission shall establish and publish the rate at which carbon
19 intensity values shall decrease annually for liquid and gaseous clean heat
20 measures consistent with subdivision (1) of this section as follows:

21 (A) on or before January 1, 2025 for 2025 to 2030; and

1 (B) on or before January 1, 2030 for 2031 to 2050.

2 (3) For the purpose of this section, the carbon intensity values shall be
3 understood relative to No. 2 fuel oil delivered into or in Vermont in 2022
4 having a carbon intensity value of 100. Carbon intensity values shall be
5 measured based on fuel pathways.

6 (f) Emissions schedule.

7 (1) To promote certainty for obligated parties and clean heat providers,
8 the Commission shall, by rule or order, establish a schedule of lifecycle
9 emission rates for heating fuels, biofuels, electricity, and any other fuel used by
10 a clean heat measure. The schedule shall be based on transparent, verifiable,
11 and accurate emissions accounting adapting the Argonne National Laboratory
12 GREET Model, Intergovernmental Panel on Climate Change (IPCC)
13 modeling, or an alternative of comparable analytical rigor to fit the Vermont
14 thermal sector context, and the requirements of 10 V.S.A. §§ 578(a)(2) and (3).

15 (2) For each fuel pathway, the schedule shall account for greenhouse gas
16 emissions from biogenic and geologic sources, including fugitive emissions.
17 In determining the baseline emission rates for clean heat measures that are
18 fuels, emissions baselines shall fully account for methane emissions reductions
19 or captures already occurring, or expected to occur, for each fuel pathway as a
20 result of local, State, or federal policies that have been enacted or adopted.

1 (3) The schedule may be amended based upon changes in technology or
2 evidence on emissions, but clean heat credits previously awarded or already
3 under contract to be produced shall not be adjusted retroactively.

4 (g) Review of consequences. The Commission shall periodically assess
5 harmful consequences that may arise in Vermont or elsewhere from the
6 implementation of clean heat measures and shall set standards or limits to
7 prevent those consequences. Such consequences may include deforestation,
8 conversion of grasslands, or the creation of new methane to meet fuel demand.

9 (h) Time stamp. Clean heat credits shall be “time stamped” for the year in
10 which the clean heat measure delivered emission reductions. For each
11 subsequent year during which the measure produces emission reductions,
12 credits shall be generated for that year. Only clean heat credits that have not
13 been retired shall be eligible to satisfy the current year obligation.

14 (i) Delivery in Vermont. Clean heat credits shall be earned only in
15 proportion to the deemed or measured thermal sector greenhouse gas emission
16 reductions achieved by a clean heat measure delivered in Vermont. Other
17 emissions offsets, wherever located, shall not be eligible measures.

18 (j) Credit eligibility. All eligible clean heat measures that are delivered in
19 Vermont [beginning on January 1, 2023](#), shall be eligible for clean heat credits
20 and may be retired and count towards an obligated party’s emission reduction
21 obligations, regardless of who creates or delivers them and regardless of

1 whether their creation or delivery was required (or funded in whole or in part)
2 by other federal or State policies and programs. This includes individual
3 initiatives, emission reductions resulting from the State's energy efficiency
4 programs, the low-income weatherization program, and the Renewable Energy
5 Standard Tier 3 program. Clean heat credits shall only be eligible to be
6 counted toward one State policy or program.

7 (k) Credit registration.

8 (1) The Commission shall create an administrative system to register,
9 sell, transfer, and trade credits to obligated parties. The Commission may hire
10 a third-party consultant to evaluate, develop, implement, maintain, and support
11 a database or other means for tracking clean heat credits and compliance with
12 the annual requirements of obligated parties.

13 (2) The system shall require entities to submit the following information
14 to receive the credit: the location of the clean heat measure, whether the
15 customer or tenant has a low or moderate income, the type of property where
16 the clean heat measure was installed or sold, the type of clean heat measure,
17 and any other information as required by the Commission.

18 (l) Greenhouse Gas Emissions Inventory and Forecast. Nothing in this
19 chapter shall limit the authority of the Secretary of Natural Resources to
20 compile and publish the Vermont Greenhouse Gas Emissions Inventory and
21 Forecast in accordance with 10 V.S.A. § 582.

Commented [A10]: Renewable Energy Standard Tier 3 measures would reduce the overall emission-reduction requirements, but not double-count as both Tier 3 measures and clean heat measures.

1 § 8126. CLEAN HEAT STANDARD TECHNICAL ADVISORY GROUP

2 (a) The Commission shall establish the Clean Heat Standard Technical
3 Advisory Group (TAG) to assist the Commission in the ongoing management
4 of the Clean Heat Standard. Its duties shall include:

5 (1) establishing and revising the lifecycle carbon dioxide equivalent
6 (CO₂e) emissions accounting methodology to be used to determine each
7 obligated party's annual requirement pursuant to subdivision 8124(a)(2) of this
8 chapter;

9 (2) establishing and revising the clean heat credit value for different
10 clean heat measures;

11 (3) periodically assessing and reporting to the Commission on the
12 sustainability of the production of clean heat measures by considering factors
13 including greenhouse gas emissions; carbon sequestration and storage; human
14 health; land use changes; ecological and biodiversity impacts; groundwater and
15 surface water impacts; air, water, and soil pollution; and impacts on food costs;

16 (4) setting the expected life length of clean heat measures for the
17 purpose of calculating credit amounts;

18 (5) establishing credit values for each year over a clean heat measure's
19 expected life, including adjustments to account for increasing interactions
20 between clean heat measures over time so as to not double-count emission
21 reductions;

1 (6) facilitating the program’s coordination with other energy programs;

2 (7) calculating the impact of the cost of clean heat credits and the cost
3 savings associated with delivered clean heat measures on per-unit heating fuel
4 prices;

5 (8) coordinating with the Agency of Natural Resources to ensure that
6 greenhouse gas emissions reductions achieved in another sector through the
7 implementation of the Clean Heat Standard are not double-counted in the
8 Vermont Greenhouse Gas Emissions Inventory and Forecast;

9 (9) advising the Commission on the periodic assessment and revision
10 requirement established in subdivision 8124(a)(3) of this chapter; and

11 (10) any other matters referred to the TAG by the Commission.

12 (b) Members of the TAG shall be appointed by the Commission and shall
13 include the Department of Public Service, the Agency of Natural Resources,
14 and parties who have, or whose representatives have, expertise in one or more
15 of the following areas: technical and analytical expertise in measuring
16 lifecycle greenhouse gas emissions; energy modeling and data analysis, clean
17 heat measures and energy technologies, sustainability and non-greenhouse gas
18 emissions strategies designed to reduce and avoid impacts to the environment,
19 delivery of heating fuels, and climate change mitigation policy and law. The
20 Commission shall accept and review motions to join the TAG from interested
21 parties who have, or whose representatives have, expertise in one or more of

1 the areas listed in this subsection. Members who are not otherwise
2 compensated by their employer shall be entitled to per diem compensation and
3 reimbursement for expenses under 32 V.S.A. § 1010.

4 (c) The Commission shall hire a third-party consultant responsible for
5 developing clean heat measure characterizations and relevant assumptions,
6 including CO2e lifecycle emissions analyses. The TAG shall provide input
7 and feedback on the consultant's work. [The Commission may use funds](#)
8 [appropriated under this act on hiring the consultant.](#)
9

10 (d) Emission analyses and associated assumptions developed by the
11 consultant shall be reviewed and approved annually by the Commission. In
12 reviewing the consultant's work, the Commission shall provide a public
13 comment period on the work. The Commission may approve or adjust the
14 consultant's work as it deems necessary based on its review and the public
15 comments received.

16 § 8127. CLEAN HEAT STANDARD EQUITY ADVISORY GROUP

17 (a) The Commission shall establish the Clean Heat Standard Equity
18 Advisory Group to assist the Commission in developing and implementing the
19 Clean Heat Standard in a manner that ensures an equitable share of clean heat
20 measures are delivered to Vermonters with low income and moderate income
21 and that Vermonters with low income and moderate income who are not early

Commented [A11]: The Commission takes DEI seriously, and we look forward to working with the Equity Advisory Group. One question we had is whether the group is time-limited or if it will exist in perpetuity?

1 participants in clean heat measures are not negatively impacted in their ability
2 to afford heating fuel. Its duties shall include:

3 (1) providing feedback to the Commission on strategies for engaging
4 Vermonters with low income and moderate income in the public process for
5 developing the Clean Heat Standard program;

6 (2) supporting the Commission in assessing whether customers are
7 equitably served by clean heat measures and how to increase equity;

8 (3) identifying actions needed to provide customers with low income
9 and moderate income with better service and to mitigate the fuel price impacts
10 calculated in section 8126 of this title;

11 (4) assisting the Commission in defining customers with low income
12 and moderate income;

13 (5) recommending any additional programs, incentives, or funding
14 needed to support customers with low income and moderate income and
15 organizations that provide social services to Vermonters in affording heating
16 fuel and other heating expenses;

17 (6) providing feedback to the Commission on the impact of the Clean
18 Heat Standard on the experience of Vermonters with low income and moderate
19 income; and

1 (7) providing information to the Commission on the challenges renters
2 face in equitably accessing clean heat measures and recommendations to
3 ensure that renters have equitable access to clean heat measures.

4 (b) The Clean Heat Standard Equity Advisory Group shall consist of up to
5 10 members appointed by the Commission and at a minimum shall include at
6 least one representative from each of the following groups: the Department of
7 Public Service; the Department for Children and Families' Office of Economic
8 Opportunity; community action agencies; Efficiency Vermont; individuals
9 with socioeconomically, racially, and geographically diverse backgrounds;
10 renters and rental property owners; and a member of the Vermont Fuel Dealers
11 Association. Members who are not otherwise compensated by their employer
12 shall be entitled to per diem compensation and reimbursement for expenses
13 under 32 V.S.A. § 1010.

14 § 8128. CONSUMER PROTECTION

15 (a) Entities that provide clean heat measures shall not unfairly induce
16 customers to install or adopt clean heat measures. Entities shall not engage in
17 predatory practices to generate clean heat measures.

18 (b) On or before January 15, 2026, the Department of Public Service, in
19 consultation with the Attorney General's Office, shall file proposed rules with
20 the Secretary of State's Office that define how clean heat measure providers

Commented [A12]: We agree with the Department's recent testimony that the AGO should be the lead on these consumer protection matters, not the Department. Also, the AGO may already have this authority without needing to do any new rulemaking. The AGO can take consumer protection matters to superior court, and the AGO already brings consumer protection cases against propane and other fuel dealers.

1 shall act, how customers will be protected from fraudulent and predatory
2 actions, and what remedies will be available.

3 § 8129. SEVERABILITY

4 If any provision of this chapter or its application to any person or
5 circumstance is held invalid or in violation of the Constitution or laws of the
6 United States or in violation of the Constitution or laws of Vermont, the
7 invalidity or the violation shall not affect other provisions of this chapter that
8 can be given effect without the invalid provision or application, and to this end,
9 the provisions of this chapter are severable.

10 Sec. 4. 10 V.S.A. § 582 is amended to read:

11 § 582. GREENHOUSE GAS INVENTORIES; REGISTRY

12 (a) Inventory and forecasting. The Secretary shall work, in conjunction
13 with other states or a regional consortium, to establish a periodic and consistent
14 inventory of greenhouse gas emissions. The Secretary shall publish the
15 Vermont Greenhouse Gas Emission Inventory and Forecast by ~~no~~ not later
16 than June 1, 2010, and updates shall be published annually until 2028, until a
17 regional or national inventory and registry program is established in which
18 Vermont participates, or until the federal National Emissions Inventory
19 includes mandatory greenhouse gas reporting. The Secretary of Natural
20 Resources shall include a sensitivity analysis in the Vermont Greenhouse Gas

1 Emissions Inventory and Forecast that measures the lifecycle greenhouse gas
2 emissions of liquid, gaseous, and solid biogenic fuels combusted in Vermont.

3 * * *

4 Sec. 5. PUBLIC UTILITY COMMISSION IMPLEMENTATION

5 (a) Commencement.

6 (1) On or before August 31, 2023, the Public Utility Commission shall
7 commence a proceeding to implement Sec. 3 (Clean Heat Standard) of this act.

8 (2) On or before October 1, 2024, the Commission shall submit to the
9 General Assembly an interim report on the development of the Clean Heat
10 Standard.

11 (b) Facilitator. On or before October 1, 2023, the Commission shall may
12 hire a third-party consultant to design and conduct public engagement. The
13 Commission may use funds appropriated under this act on hiring the
14 consultant.

15 (c) Public engagement process. Before commencing rulemaking, the
16 Commission shall use the forms of public engagement described in this
17 subsection to inform the design and implementation of the Clean Heat
18 Standard. Any failure by the Commission to meet the specific procedural
19 requirements of this section shall not affect the validity of the Commission's
20 actions.

Commented [A13]: This will take time and resources away from our work on the rulemaking, and it's not clear what benefit comes from submitting a report on Oct. 1, 2024, when the rules themselves are due 3 1/2 months later.

Commented [A14]: Public engagement is inherent in our process. A lot of the prescriptive requirements for public engagement came in from the House without testimony from us last year.

1 ~~(1) As part of its pre-rulemaking process, the Commission shall hold at least~~
2 ~~six public meetings, and of those meetings, at least three shall allow members~~
3 ~~of the public to participate in person and remotely. The meetings shall be held~~
4 ~~in at least six different geographically diverse counties of the State. The~~
5 ~~meetings (public hearings and workshops) that shall be recorded and publicly~~
6 ~~posted on the Commission's website. These meetings shall be open to all~~
7 ~~stakeholders, members of the public, and all other potentially affected parties.~~

8 ~~(2) Of the six meetings, the Commission, with the assistance of the consultant,~~
9 ~~shall also use deliberative polling or another method of receiving focused~~
10 ~~feedback from specific constituents during at least two meetings. The~~
11 ~~facilitator shall assist the Commission in developing a format for soliciting~~
12 ~~feedback at the meetings. Each of these meetings shall focus on seeking input~~
13 ~~from a specific group, which may include heating fuel dealers; customers with~~
14 ~~low income, moderate income, and fixed income and their advocates; and~~
15 ~~customers who use large amounts of heating fuel.~~

16 ~~(3) The Commission shall hold at least two workshops to solicit the input~~
17 ~~of potentially affected parties. To facilitate participation, the Commission~~
18 ~~shall provide notice of the workshops on its website, shall publish the notice~~
19 ~~once in a newspaper of general circulation in each county of Vermont, and~~
20 ~~shall also provide direct notice to any person that requests direct notice or to~~
21 ~~whom the Commission may consider direct notice appropriate. The~~

Commented [A15]: This could be summarized as a requirement directing a robust pre-rulemaking process with stakeholders, members of the public, potentially affected parties. Our current pre-rulemaking process is robust, nimble, and inclusive.

1 Commission also shall provide ~~an~~ opportunities for submission of written
2 comments, ~~which the notice shall include.~~

3 (d) Advertising. The Commission ~~shall~~ may use funding appropriated in
4 this act on advertising the public meetings in order to provide notice to a wide
5 variety of segments of the public.

6 (e) Draft proposed rules. The Commission shall publish draft proposed
7 rules publicly and provide notice of it [through ePUC \(the Commission's online](#)
8 [case management system\)](#) to the stakeholders [in this rulemaking](#) who
9 registered their names and e-mail addresses with the Commission [through](#)
10 [ePUC during the workshops](#). The Commission shall provide a 30-day
11 comment period on the draft and accept written comments from the public and
12 stakeholders. The Commission shall ~~incorporate~~ consider ~~necessary~~ changes
13 [in response to the public comments before filing the proposed rules with the](#)
14 Secretary of State and the Legislative Committee on Administrative Rules.

15 (f) Final rules. On or before January 15, 2025, the Commission shall
16 submit to the General Assembly final proposed rules to implement the Clean
17 Heat Standard. The Commission shall not file the final proposed rules with the
18 Secretary of State until June 1, 2025.

19 (g) Consultant. ~~On or before January 15, 2024,~~ The Commission ~~shall~~
20 [may](#) contract with a consultant to assist with implementation of 30 V.S.A.
21 [§ 8125 \(clean heat credits\).](#)

Commented [A16]: There could potentially be litigation over whether a change is "necessary." We can avoid that by just saying we "shall consider changes" instead of requiring that we incorporate necessary changes.

Commented [A17]: We don't need a deadline here, as we'll have every incentive to contract with a consultant as early as possible.

1 (h) Funding. On or before January 15, 2024, the Commission shall report
2 to the General Assembly on suggested revenue streams that may be used or
3 created to fund the Commission’s administration of the Clean Heat Standard
4 program.

5 (i) Check-back reports. On or before February 15, 2024 and January 15,
6 2025, the Commission shall submit a written report to and be available to
7 provide oral testimony to the House Committee on Natural Resources, Fish,
8 and Wildlife and the Senate Committees on Finance and on Natural Resources
9 and Energy detailing the efforts undertaken to establish the Clean Heat
10 Standard. The reports shall include, to the extent available, estimates of the
11 impact of the Clean Heat Standard on customers, including impacts to
12 customer rates and fuel bills for participating and nonparticipating customers,
13 net impacts on total spending on energy for thermal sector end uses, fossil fuel
14 reductions, greenhouse gas emission reductions, and, if possible, impacts on
15 economic activity and employment. The modeled impacts shall estimate high-,
16 medium-, and low-price impacts. The reports shall recommend any legislative
17 action needed to address enforcement of the Clean Heat Standard.

18 (j) The Commission may rely on the Agency of Commerce and Community
19 Development, the Department of Public Service, and other state agencies to
20 assist with economic modeling for the required reports and rulemaking
21 process.

Commented [A18]: This uncertainty in funding could make it difficult to hire for the three new positions. Also, there seem to be only three likely sources of long-term funding: (1) a fuel tax increase, (2) a charge on the obligated entities, or (3) the general fund. Historically, the Commission's entire budget has been funded by the entities we regulate (not from the general fund).

1 Sec. 6. PUBLIC UTILITY COMMISSION AND DEPARTMENT OF
2 PUBLIC SERVICE POSITIONS; APPROPRIATION

3 (a) The following new positions are created in the Public Utility
4 Commission for the purpose of carrying out this act:

5 (1) one permanent exempt Staff Attorney~~3~~;

6 (2) one permanent exempt Analyst; and

7 (3) one limited-service exempt Analyst.

8 (b) The sum of \$800,000.00 is appropriated to the Public Utility
9 Commission from the General Fund in fiscal year 2024~~3~~ for the positions
10 established in subsection (a) of this section; for ~~all the~~ consultants required by
11 ~~Sec. 4 of~~ this act; and for additional operating costs required to implement the
12 Clean Heat Standard, including marketing and public outreach for Sec. 4 of
13 this act.

14 (c) The following new positions are created in the Department of Public
15 Service for the purpose of carrying out this act:

16 (1) one permanent exempt Staff Attorney; and

17 (2) one permanent classified Program Analyst.

18 (d) The sum of \$400,000.00 is appropriated to the Department of Public
19 Service from the General Fund in fiscal year 2024~~3~~ for the positions
20 established in subsection (c) of this section, to retain consultants that may be
21 required to support verification and evaluation required by 30 V.S.A.

1 § 8125(a), and for associated operating costs related to the implementation of
2 the Clean Heat Standard.

3 Sec. 7. SECTORAL PROPORTIONALITY REPORT

4 (a)(1) On or before November 15, 2024, the Agency of Natural Resources
5 and the Department of Public Service, in consultation with the Agencies of
6 Agriculture, Food and Markets, of Commerce and Community Development,
7 and of Transportation and the Vermont Climate Council, shall report to the
8 House Committees on Energy and Technology and on Natural Resources, Fish,
9 and Wildlife and to the Senate Committees on Finance and on Natural
10 Resources and Energy regarding:

11 (A) the role of individual economic sectors in achieving the
12 greenhouse gas emission reduction requirements pursuant to 10 V.S.A.
13 § 578(a);

14 (B) each economic sector's proportional contribution to greenhouse
15 gas emissions in Vermont as inventoried pursuant to 10 V.S.A. § 582; and

16 (C) the extent to which cost-effective, feasible, and cobeneficial
17 reasonably available greenhouse gas emission reduction measures are available
18 commensurate with each sector's proportional contribution and emissions
19 reduction impact.

1 (2) The report shall consider the analyses performed in support of the
2 December 1, 2021 Climate Action Plan and the 2022 Comprehensive Energy
3 Plan. The report shall consider additional analyses as necessary.

4 (b) The report shall make recommendations to the General Assembly to
5 amend 10 V.S.A. § 578 to include sector-specific greenhouse emissions
6 reduction requirements and, as necessary, subsector-specific greenhouse
7 emission reduction requirements for the purposes of informing and
8 appropriately scaling the implementation of programs and policies that achieve
9 greenhouse gas emission reductions. As used in this section, “sector” means
10 those established in the annual Vermont Greenhouse Gas Emissions Inventory
11 and Forecast produced by the Agency of Natural Resources pursuant to
12 10 V.S.A. § 582. The recommendations shall be made in consideration of the
13 factors established in 10 V.S.A. § 592(d).

14 (c) The Agency of Natural Resources and the Department of Public
15 Service, in consultation with the Vermont Climate Council, shall submit an
16 updated report and any corresponding recommendations in accordance with
17 this section on July 1 of a year immediately preceding a year in which an
18 updated Climate Action Plan is adopted pursuant to 10 V.S.A. § 592(a).

19 Sec. 8. EFFECTIVE DATE

20 This act shall take effect on passage.