

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 (gCO<sub>2</sub>e/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 (CO<sub>2</sub>e) 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 CO<sub>2</sub>e 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 (CO<sub>2</sub>e). 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 CO<sub>2</sub>e 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 CO<sub>2</sub>e 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 CO<sub>2</sub>e emissions  
4           of the fuel use that is avoided, minus the lifecycle CO<sub>2</sub>e 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     (CO<sub>2</sub>e) 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.