

1 TO THE HONORABLE SENATE:

2 The Committee on Natural Resources and Energy to which was referred
3 Senate Bill No. 5 entitled “An act relating to affordably meeting the mandated
4 greenhouse gas reductions for the thermal sector through electrification,
5 decarbonization, efficiency, and weatherization measures” respectfully reports
6 that it has considered the same and recommends that the bill be amended by
7 striking out all after the enacting clause and inserting in lieu thereof the
8 following:

9 Sec. 1. SHORT TITLE

10 This act shall be known and may be cited as the “Affordable Heat Act.”

11 Sec. 2. FINDINGS

12 The General Assembly finds:

13 (1) All of the legislative findings made in 2020 Acts and Resolves

14 No. 153, Sec. 2, the Vermont Global Warming Solutions Act of 2020

15 (GWSA), remain true and are incorporated by reference here.

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

19 (3) The Vermont Climate Council was established under the GWSA and
20 was tasked with, among other things, recommending necessary legislation to
21 reduce greenhouse gas emissions. The Initial Vermont Climate Action Plan

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

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

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

17 (6) Vermonters have an unprecedented opportunity to invest in eligible
18 clean heat measures with funding from new federal laws including, the
19 Infrastructure Investment and Jobs Act of 2021 and the Inflation Reduction Act
20 of 2022.

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

2 CHAPTER 94. CLEAN HEAT STANDARD

3 § 8121. INTENT

4 Pursuant to 2 V.S.A. § 205(a), it is the intent of the General Assembly that
5 the Clean Heat Standard be designed and implemented in a manner that
6 achieves Vermont’s thermal sector greenhouse gas emissions reductions
7 necessary to meet the requirements of 10 V.S.A. § 578(a)(2) and (3),
8 minimizes costs to customers, and recognizes that affordable heating is
9 essential for Vermonters. It shall minimize adverse impacts to customers with
10 low income and moderate income and those households with the highest
11 energy burdens.

12 § 8122. CLEAN HEAT STANDARD

13 (a) The Clean Heat Standard is established. Under this program, obligated
14 parties shall reduce greenhouse gas emissions attributable to the Vermont
15 thermal sector by retiring required amounts of clean heat credits to meet the
16 thermal sector portion of the greenhouse gas emission reduction obligations of
17 the Global Warming Solutions Act.

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

Commented [A1]: If the model is to have a statewide default delivery agent that works on behalf of obligated entities, it seems there is no need for a system of tradeable clean heat credits.

1 (e) An obligated party may obtain the required amount of clean heat credits
2 through delivery of eligible clean heat measures, through contracts for delivery
3 of eligible clean heat measures, through the market purchase of clean heat
4 credits, or through delivery of eligible clean heat measures by a designated
5 statewide default delivery agent. In place of obligated-party specific programs,
6 the Commission shall provide for the development and implementation of
7 statewide clean heat programs and measures by one or more default delivery
8 agents appointed by the Commission for these purposes. The Commission
9 may specify that appointment of a default delivery agent to deliver clean heat
10 services, on behalf of obligated entities who pay the per-credit fee to the
11 default delivery agent, satisfies those entities' corresponding obligations under
12 this section. The Commission, by rule or order, shall establish a process by
13 which an obligated party may apply to the Commission to self-administer clean
14 heat programs or measures. The Commission in its rules or order shall
15 establish criteria for approval of these applications.

16 (c) Appointed default delivery agent; supervision. Any entity appointed by
17 order of appointment under subdivisions (b) of this subsection that is not an
18 electric or gas utility already regulated under this title shall not be considered
19 to be a company as defined under section 201 of this title, but shall be subject
20 to the provisions of sections 18-21, 30-32, 205-208, subsection 209(a), sections
21 219, 221, and subsection 231(b) of this title, to the same extent as a company

Commented [A2]: This language mirrors as closely as possible the language from Section 209(d)(2)(A) governing the appointment of energy efficiency utilities.

Commented [A3]: This language mirrors as closely as possible the language from Section 209(d)(3)(B) regarding energy savings accounts.

Commented [A4]: This language mirrors as closely as possible the language from Section 209(d)(5) regarding supervision over energy efficiency utilities.

1 as defined under section 201 of this title. The Commission and the Department
2 of Public Service shall have jurisdiction under those sections over the entity, its
3 directors, receivers, trustees, lessees, or other persons or companies owning or
4 operating the entity and of all plants, equipment, and property of that entity
5 used in or about the business carried on by it in this State as covered and
6 included in this section. This jurisdiction shall be exercised by the
7 Commission and the Department so far as may be necessary to enable them to
8 perform the duties and exercise the powers conferred upon them by law. The
9 Commission and the Department each may, when they deem the public good
10 requires, examine the plants, equipment, and property of any entity appointed
11 by order of appointment to serve as a default delivery agent.

12 (d)(1) The Commission shall adopt rules and may issue orders to
13 implement and enforce the Clean Heat Standard program.

14 (2) The requirement to adopt rules does not in any way impair the
15 Commission’s authority to issue orders or take any other actions, both before
16 and after final rules take effect, to implement and enforce the Clean Heat
17 Standard.

18 (3) The Commission’s rules may include a provision that allows the
19 Commission to revise its Clean Heat Standard rules by order of the
20 Commission without the revisions being subject to the rulemaking
21 requirements of the 3 V.S.A. chapter 25, provided the Commission:

- 1 (A) provides notice of any proposed changes,
2 (B) allows for a 30-day comment period, and
3 (C) responds to all comments received on the proposed change.
4 (4) Any order issues under this chapter shall be subject to appeal to the
5 Vermont Supreme Court under section 12 of this title, and the Commission
6 must immediately file any orders and a redline and clean version of the revised
7 rules with the Secretary of State, with notice simultaneously provided to the
8 House Committee on Environment and Energy and the Senate Committees on
9 Finance and on Natural Resources and Energy.

10 § 8123. DEFINITIONS

11 As used in this chapter:

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

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

19 (3) “Clean heat measure” means fuel delivered and technologies
20 installed to end-use customers in Vermont that reduce greenhouse gas
21 emissions from the thermal sector. Clean heat measures shall not include

1 switching from one fossil fuel use to another fossil fuel use. The Commission
2 may adopt a list of acceptable actions that qualify as clean heat measures.

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

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

Commented [A5]: There may be more than one default delivery agent.

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

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

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

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

18 (10) “Obligated party” means:

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

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

Commented [A6]: The AGO is working on a proposed clarification regarding who is the obligated party.

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

4 § 8124. CLEAN HEAT STANDARD COMPLIANCE

5 (a) Required amounts.

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

13 (2) Annual requirements shall be expressed as a percent of each
14 obligated party’s contribution to the thermal sector’s lifecycle CO₂e emissions
15 in the previous year. The annual percentage reduction shall be the same for all
16 obligated parties. To ensure understanding among obligated parties, the
17 Commission shall publicly provide a description of the annual requirements in
18 plain terms.

19 (3) To support the ability of the obligated parties to plan for the future,
20 the Commission shall establish and update annual clean heat credit
21 requirements for the next 10 years. Every three years, the Commission shall

Commented [A7]: Clarifying the intent here.

1 extend the requirements three years; shall assess emission reductions actually
2 achieved in the thermal sector; and, if necessary, revise the pace of clean heat
3 credit requirements for future years to ensure that the thermal sector portion of
4 the emission reduction requirements of 10 V.S.A. § 578(a)(2) and (3) for 2030
5 and 2050 will be achieved.

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

10 (b) Annual registration.

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

1 (2) At a minimum, the Commission shall require registration
2 information to include legal name; doing business as name, if applicable;
3 municipality; state; types of heating fuel sold; and the volume of sales of
4 heating fuels into or in the State for final sale or consumption in the State in
5 the calendar year immediately preceding the calendar year in which the entity
6 is registering with the Commission.

7 (3) The Department of Taxes shall annually provide to the Commission
8 a copy of the forms that were submitted by the a list of entities that pay the fuel
9 tax pursuant to 33 V.S.A. § 2503(a)(1) and (2) to the Commission. If any form
10 contains a social security number, the Department of Taxes shall redact that
11 information before submitting a copy of the form to the Commission.
12 Notwithstanding any other provision of law, including 33 V.S.A. §§ 2503(c)
13 and any confidentiality provisions that would normally apply to tax forms, the
14 fuel tax forms submitted pursuant to 33 V.S.A. §§ 2503(a)(1) and (2) shall be
15 public documents, and the Commission shall make those documents publicly
16 available. The Department of Taxes shall ensure that the fuel tax form
17 required under 33 V.S.A. §§ 2503(a)(1) and (2) must include a prominent
18 notice explaining that, pursuant to this section, the form will be provided to the
19 Vermont Public Utility Commission and will be made publicly available. The
20 Department of Taxes shall further ensure that the fuel tax form requires that
21 each submitting entity list the exact amount of gallons of each fuel type.

Commented [A8]: 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.

Commented [A9]: Our understanding from talking with ANR is that for transportation fuels, all of this information (volume of fuels and where they got it from) is made publicly available. We should do the same for heating fuels to create transparency about exactly how much of each type of fuel is being sold in the state and where it is coming from.

1 separated by type, that was sold in Vermont, as well as a list of the exact
2 amount of gallons of each fuel type, separated by type, that was purchased by
3 the submitting entity and the name and location of the entity from which it was
4 purchased.

Commented [A10]: We've drafted this to capture the data that the PUC would look for in implementing the Clean Heat Standard. We also note that our understanding is that the Department of Public Service, for purposes of its data collection regarding Enhanced Energy Plans under Act 174, would like additional data about where in Vermont (town and region) specific amounts of heating fuels are sold.

5 (4) 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 (5) 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 (6) For any entity not registered on or before 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 (7) Clean heat requirements shall transfer to entities that acquire an
19 obligated party.

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

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, have
17 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. Good cause may include a shortage of
13 clean heat credits or undue adverse financial impacts on particular customers
14 or demographic segments.

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

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

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

9 (f) Default delivery agent.

10 (1) The Commission shall designate the default delivery agent. The
11 default delivery agent shall be ~~a single~~one or more statewide entities capable
12 of providing a variety of clean heat measures. ~~The entity selected as the~~
13 ~~default delivery agent may also be a market participant but shall not be an~~
14 ~~obligated party.~~ The designation of an entity under this subdivision may be by
15 order of appointment or contract. A designation, whether by order of
16 appointment or by contract, may only be issued after notice and opportunity for
17 hearing. An order of appointment shall be for a limited duration not to exceed
18 12 years, although an entity may be reappointed by order or contract. An order
19 of appointment may include any conditions and requirements that the
20 Commission deems appropriate to promote the public good. For good cause,

Commented [A11]: If there is a statewide default delivery agent system, then it may be unnecessary to allow for the sale of credits. To the extent that there is a market for clean heat credits anyway, an obligated party would be free to sell excess credits even without these three words.

1 after notice and opportunity for hearing, the Commission may amend or revoke
2 an order of appointment.

3 (2) An obligated party ~~may shall~~ meet its annual requirement through a
4 designated default delivery agent appointed by the Commission ~~unless the~~
5 Commission has approved an application by the obligated party to self-
6 administer clean heat programs and measures. The default delivery agent shall
7 deliver creditable clean heat measures to Vermont homes and businesses ~~when:~~

8 ~~(A) an obligated party chooses to assign its annual requirement, in full~~
9 ~~or in part, to the default delivery agent; or~~

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

12 (3) By rule or order, the Commission shall adopt annually the cost per
13 clean heat credit to be paid to the default delivery agent by an obligated party
14 that chooses this option. In adjusting the default delivery agent credit cost, the
15 Commission shall consider the default delivery agent's anticipated costs to
16 deliver clean heat measures and costs borne by customers, among other factors
17 determined by the Commission. Changes to the cost of credits shall take effect
18 not less than 180 days after adoption. ~~The Commission may amend this 180-~~
19 ~~day advance notice period by rule or order if it concludes that such amendment~~
20 ~~would result in a more accurate representation of the default delivery agent's~~
21 ~~anticipated costs, so long as there is still at least 90 days of advance notice.~~

Commented [A12]: 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.

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

4 (g) Enforcement.

5 (1) The Commission shall have the authority to enforce the requirements
6 of this chapter and any rules or orders adopted to implement the provisions of
7 this chapter. The Commission may use its existing authority under this title.
8 As part of an enforcement order, the Commission may order penalties and
9 injunctive relief.

10 (2) The Commission shall order an obligated party that fails to retire the
11 number of clean heat credits required in a given year, including the required
12 amounts from customers with low income and moderate income, to make a
13 noncompliance payment to the default delivery agent. The per-credit amount
14 of the noncompliance payment shall be three times the amount established by
15 the Commission under subsection (f) of this section for timely per-credit
16 payments to the default delivery agent.

17 (3) ~~Any False or misleading~~ statements or other representations made to
18 the Commission by obligated parties related to compliance with the Clean Heat
19 Standard are subject to the Commission’s enforcement authority, including the
20 power to investigate and assess penalties, under this title.

1 (4) The Commission’s enforcement authority does not in any way
2 impede the enforcement authority of other entities, such as the Attorney
3 General’s office.

4 ~~(5) In addition to any other applicable penalties and remedies, failure~~
5 to register with the Commission as required by this section shall be considered
6 a violation of the Consumer Protection Act in 9 V.S.A. chapter 63. ~~is a per se~~
7 violation of this section and of the Vermont Consumer Protection Act’s
8 prohibition on unfair and deceptive acts. ~~The fact that an entity may not have~~
9 known it was required to register with the Commission shall not be a defense.

Commented [A13]: Updated language that has been cleared with the AGO.

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

14 (i) Reports.

15 (1) As used in this subsection, “standing committees” means the House
16 Committee on Environment and Energy and the Senate Committees on
17 Finance and on Natural Resources and Energy.

18 (2) After the adoption of the rules implementing this chapter, the
19 Commission shall submit a written report to the standing committees detailing
20 the efforts undertaken to establish the Clean Heat Standard pursuant to this
21 chapter.

1 (3) On or before January 15 of each year following the year in which the
2 rules are first adopted under this section, the Commission shall submit to the
3 standing committees a written report detailing the implementation and
4 operation of the Clean Heat Standard. This report shall include an assessment
5 on the equitable adoption of clean heat measures required by subsection (d) of
6 this section, along with recommendations to increase participation for the
7 households with the highest energy burdens. The provisions of 2 V.S.A.
8 § 20(d) (expiration of required reports) shall not apply to the report to be made
9 under this subsection.

10 § 8125. ~~TRADEABLE~~ CLEAN HEAT CREDITS

11 (a) Credits established. By rule or order, the Commission shall establish or
12 adopt a system of ~~tradeable~~ clean heat credits that are earned by reducing
13 greenhouse gas emissions through the delivery of clean heat measures. While
14 credit denominations may be in simple terms for public understanding and ease
15 of use, the underlying value shall be based on units of carbon dioxide
16 equivalent (CO₂e). The system shall provide a process for the recognition,
17 approval, and monitoring of the clean heat credits. The Department of Public
18 Service shall perform the verification of clean heat credit claims and submit
19 results of the verification and evaluation to the Commission annually.

20 (b) Credit values. Clean heat credits shall be based on the accurate and
21 verifiable lifecycle CO₂e emission reductions in Vermont’s thermal sector that

Commented [A14]: Under a centralized default delivery agent model, it seems unnecessary to create a trading system.

1 result from the delivery of eligible clean heat measures to end-use customer
2 locations into or in Vermont.

3 (1) For clean heat measures that are installed, credits will be created for
4 each year of the expected life of the installed measure. The annual value of the
5 clean heat credits for installed measures in each year shall be equal to the
6 lifecycle CO₂e emissions of the fuel use that is avoided in a given year
7 because of the installation of the measure, minus the lifecycle emissions of the
8 fuel that is used instead in that year.

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

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

16 (1) thermal energy efficiency improvements and weatherization;

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

19 (3) heat pump water heaters;

20 (4) utility-controlled electric water heaters;

21 (5) solar hot water systems;

1 (6) electric appliances providing thermal end uses;

2 (7) advanced wood heating;

3 (8) noncombustion or renewable energy-based district heating services;

4 (9) the supply of sustainably sourced biofuels; and

5 (10) the supply of green hydrogen.

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

12 (e) Carbon intensity of fuels.

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

15 (A) below 80 in 2025;

16 (B) below 60 in 2030; and

17 (C) below 20 in 2050, provided the Commission may allow liquid
18 and gaseous clean heat measures with a carbon intensity value greater than 20
19 if excluding them would be impracticable based on the characteristics of
20 Vermont's buildings, the workforce available in Vermont to deliver lower

1 carbon intensity clean heat measures, cost, or the effective administration of
2 the Clean Heat Standard.

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

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

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

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

12 (f) Emissions schedule.

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

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

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

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

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

20 (i) Delivery in Vermont. Clean heat credits shall be earned only in
21 proportion to the deemed or measured thermal sector greenhouse gas emission

1 reductions achieved by a clean heat measure delivered in Vermont. Other
2 emissions offsets, wherever located, shall not be eligible measures.

3 (j) Credit eligibility. All eligible clean heat measures that are delivered in
4 Vermont beginning on January 1, 2023 shall be eligible for clean heat credits
5 and may be retired and count towards an obligated party's emission reduction
6 obligations, regardless of who creates or delivers them and regardless of
7 whether their creation or delivery was required or funded in whole or in part by
8 other federal or State policies and programs. This includes individual
9 initiatives, emission reductions resulting from the State's energy efficiency
10 programs, the low-income weatherization program, and the Renewable Energy
11 Standard Tier 3 program. [Clean heat credits created as a result of another State](#)
12 [policy or program, such as regulated energy efficiency utility programs under](#)
13 [Sections 209\(d\) and \(e\) of this Title, electric utility energy transformation](#)
14 [programs under Section 8005\(a\)\(3\) of this Title, or the Home Weatherization](#)
15 [Assistance Program under Section 2502 of Title 33, shall act to reduce the](#)
16 [overall emission-reduction requirement but shall not be double-counted.](#) Clean
17 [heat programs may provide incremental support to other State policies or](#)
18 [programs but may take credit only for the additional amount of service](#)
19 [supported.](#)

20 (k) Credit ~~registration~~ verification.

Commented [A15]: 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.

Commented [A16]: This sentence mirrors as closely as possible Section 8005(a)(3)(E)(ii).

1 ~~(1) The Commission shall create an administrative system to register,~~
2 ~~sell, transfer, and trade credits to obligated parties.~~ The Commission may hire
3 a third-party consultant to evaluate, ~~develop, implement, maintain,~~ and support
4 the Commission’s work in assessing ~~a database or other means for tracking~~
5 ~~clean heat credits and~~ compliance with the annual requirements of obligated
6 parties.

7 (2) The ~~following information is required to substantiate the creation of~~
8 ~~clean heat credit system shall require entities to submit the following~~
9 ~~information to receive the credit:~~ the location of the clean heat measure,
10 whether the customer or tenant has a low or moderate income, the type of
11 property where the clean heat measure was installed or sold, the type of clean
12 heat measure, and any other information as required by the Commission.

13 ~~(1) Greenhouse Gas Emissions Inventory and Forecast. Nothing in this~~
14 ~~chapter shall limit the authority of the Secretary of Natural Resources to~~
15 ~~compile and publish the Vermont Greenhouse Gas Emissions Inventory and~~
16 ~~Forecast in accordance with 10 V.S.A. § 582.~~

17 § 8126. CLEAN HEAT STANDARD TECHNICAL ADVISORY GROUP

18 ~~(a) The Commission shall establish the Clean Heat Standard Technical~~
19 ~~Advisory Group (TAG) to assist the Commission in the ongoing management~~
20 ~~of the Clean Heat Standard. Its duties shall include:~~

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

5 (2) establishing and revising the clean heat credit value for different
6 clean heat measures;

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

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

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

18 (6) facilitating the program's coordination with other energy programs;

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

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

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

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

8 (b) Members of the TAG shall be appointed by the Commission and shall
9 include the Department of Public Service, the Agency of Natural Resources,
10 and parties who have, or whose representatives have, expertise in one or more
11 of the following areas: technical and analytical expertise in measuring
12 lifecycle greenhouse gas emissions, energy modeling and data analysis, clean
13 heat measures and energy technologies, sustainability and non-greenhouse gas
14 emissions strategies designed to reduce and avoid impacts to the environment,
15 delivery of heating fuels, and climate change mitigation policy and law. The
16 Commission shall accept and review motions to join the TAG from interested
17 parties who have, or whose representatives have, expertise in one or more of
18 the areas listed in this subsection. Members who are not otherwise
19 compensated by their employer shall be entitled to per diem compensation and
20 reimbursement for expenses under 32 V.S.A. § 1010.

1 (c) The Commission shall hire a third-party consultant responsible for
2 developing clean heat measure characterizations and relevant assumptions,
3 including CO₂e lifecycle emissions analyses. The TAG shall provide input
4 and feedback on the consultant’s work. The Commission may use
5 appropriated funds to hire the consultant.

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

12 § 8127. CLEAN HEAT STANDARD EQUITY ADVISORY GROUP

13 (a) The Commission shall establish the Clean Heat Standard Equity
14 Advisory Group to assist the Commission in developing and implementing the
15 Clean Heat Standard in a manner that ensures an equitable share of clean heat
16 measures are delivered to Vermonters with low income and moderate income
17 and that Vermonters with low income and moderate income who are not early
18 participants in clean heat measures are not negatively impacted in their ability
19 to afford heating fuel. Its duties shall include:

Commented [A17]: 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 (1) providing feedback to the Commission on strategies for engaging
2 Vermonters with low income and moderate income in the public process for
3 developing the Clean Heat Standard program;

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

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

9 (4) assisting the Commission in defining customers with low income
10 and moderate income;

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

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

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

1 (b) The Clean Heat Standard Equity Advisory Group shall consist of up to
2 10 members appointed by the Commission and at a minimum shall include at
3 least one representative from each of the following groups: the Department of
4 Public Service; the Department for Children and Families' Office of Economic
5 Opportunity; community action agencies; Efficiency Vermont; individuals
6 with socioeconomically, racially, and geographically diverse backgrounds;
7 renters and rental property owners; and a member of the Vermont Fuel Dealers
8 Association. Members who are not otherwise compensated by their employer
9 shall be entitled to per diem compensation and reimbursement for expenses
10 under 32 V.S.A. § 1010.

11 § 8128. SEVERABILITY

12 If any provision of this chapter or its application to any person or
13 circumstance is held invalid or in violation of the Constitution or laws of the
14 United States or in violation of the Constitution or laws of Vermont, the
15 invalidity or the violation shall not affect other provisions of this chapter that
16 can be given effect without the invalid provision or application, and to this end,
17 the provisions of this chapter are severable.

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

19 § 582. GREENHOUSE GAS INVENTORIES; REGISTRY

20 (a) Inventory and forecasting. The Secretary shall work, in conjunction
21 with other states or a regional consortium, to establish a periodic and consistent

1 inventory of greenhouse gas emissions. The Secretary shall publish the
2 Vermont Greenhouse Gas Emission Inventory and Forecast by ~~no~~ not later
3 than June 1, 2010, and updates shall be published annually until 2028, until a
4 regional or national inventory and registry program is established in which
5 Vermont participates, or until the federal National Emissions Inventory
6 includes mandatory greenhouse gas reporting. The Secretary of Natural
7 Resources shall include a sensitivity analysis in the Vermont Greenhouse Gas
8 Emissions Inventory and Forecast that measures the lifecycle greenhouse gas
9 emissions of liquid, gaseous, and solid biogenic fuels combusted in Vermont.

10 * * *

11 Sec. 5. 32 V.S.A. § 3102 is amended to read:

12 § 3102. CONFIDENTIALITY OF TAX RECORDS

13 (a) No present or former officer, employee, or agent of the Department of
14 Taxes shall disclose any return or return information to any person who is not
15 an officer, employee, or agent of the Department of Taxes except in
16 accordance with the provisions of this section. A person who violates this
17 section shall be fined not more than \$1,000.00 or imprisoned for not more than
18 one year, or both; and if the offender is an officer or employee of this State, the
19 offender shall, in addition, be dismissed from office and be incapable of
20 holding any public office for a period of five years thereafter.

21 * * *

1 (d) The Commissioner shall disclose a return or return information:

2 * * *

3 (9) To the Public Utility Commission and the Department of Public
4 Service for purposes of providing information related to the fuel tax imposed
5 under 33 V.S.A. § 2503 necessary to administer the Clean Heat Standard
6 established in 30 V.S.A. chapter 94.

7 * * *

8 Sec. 6. PUBLIC UTILITY COMMISSION IMPLEMENTATION

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

12 (b) Facilitator. The Commission may hire a third-party consultant to
13 design and conduct public engagement. The Commission may use funds
14 appropriated under this act on hiring the 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.

1 (1) The Commission shall allow any person to register at any time in the
2 Commission’s online case management system, ePUC, as a participant in the
3 Clean Heat Standard proceeding. All members of the Equity Advisory Group
4 shall be made automatic participants to that proceeding. All registered
5 participants in the proceeding, including all members of the Equity Advisory
6 Group, shall receive all notices of public meetings and all notices of
7 opportunities to comment in that proceeding.

8 (2) The Commission shall hold at least six public meetings (public
9 hearings or workshops) that, and of those meetings, at least three shall allow
10 members of the public to participate in person and remotely. The meetings
11 shall be held in at least six different geographically diverse counties of the
12 State. The meetings shall be recorded or transcribed and publicly posted on
13 the Commission’s website or on ePUC. These meetings shall be open to
14 everyone, including all stakeholders, members of the public, and all other
15 potentially affected parties.

16 (3) Of the six meetings, the Commission, with the assistance of the
17 consultant, shall also use deliberative polling or another method of receiving
18 focused feedback from specific constituents during at least two meetings. The
19 facilitator shall assist the Commission in developing a format for soliciting
20 feedback at the meetings. Each of these meetings shall focus on seeking input
21 from a specific group, which may include heating fuel dealers; customers with

1 low income, moderate income, and fixed income and their advocates; and
2 customers who use large amounts of heating fuel.

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

9 The Commission also shall provide an at least three rounds of opportunities
10 for the submission of written comments, which the notice shall include. Any
11 person may submit written comments to the Commission.

12 (4) The Commission shall seek input from the Equity Advisory Group
13 on organizations and communities to invite to participate in the Commission's
14 public meetings and opportunities to comment.

15 (d) Advertising. The Commission shall use funding appropriated in this act
16 on advertising the public meetings in order to provide notice to a wide variety
17 of segments of the public.

18 (e) Draft proposed rules. The Commission shall publish draft proposed
19 rules publicly and provide notice of them through the Commission's online
20 case management system, ePUC, to the stakeholders in this rulemaking who
21 registered their names and e-mail addresses with the Commission through

1 ePUC. The Commission shall provide a 30-day comment period on the draft
2 and accept written comments from the public and stakeholders. The
3 Commission shall consider changes in response to the public comments before
4 filing the proposed rules with the Secretary of State and the Legislative
5 Committee on Administrative Rules.

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

10 (g) Consultant. The Commission may contract with a consultant to assist
11 with implementation of 30 V.S.A. § 8125 (clean heat credits).

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

16 (i) Check-back reports. On or before February 15, 2024 and January 15,
17 2025, the Commission shall submit a written report to and be available to
18 provide oral testimony to the House Committee on Environment and Energy
19 and the Senate Committees on Finance and on Natural Resources and Energy
20 detailing the efforts undertaken to establish the Clean Heat Standard. The
21 reports shall include, to the extent available, estimates of the impact of the

1 Clean Heat Standard on customers, including impacts to customer rates and
2 fuel bills for participating and nonparticipating customers, net impacts on total
3 spending on energy for thermal sector end uses, fossil fuel reductions,
4 greenhouse gas emission reductions, and, if possible, impacts on economic
5 activity and employment. The modeled impacts shall estimate high-, medium-,
6 and low-price impacts. The reports shall recommend any legislative action
7 needed to address enforcement of the Clean Heat Standard.

8 (j) The Agency of Commerce and Community Development, the
9 Department of Public Service, and other State agencies and departments shall
10 assist the Commission with economic modeling for the required reports and
11 rulemaking process.

12 Sec. 7. PUBLIC UTILITY COMMISSION AND DEPARTMENT OF
13 PUBLIC SERVICE POSITIONS; APPROPRIATION

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

16 (1) one permanent exempt Staff Attorney;

17 (2) one permanent exempt Analyst; and

18 (3) one limited-service exempt Analyst.

19 (b) The sum of \$800,000.00 is appropriated to the Public Utility
20 Commission from the General Fund in fiscal year 2024 for the positions
21 established in subsection (a) of this section; for all consultants required by this

1 act; and for additional operating costs required to implement the Clean Heat
2 Standard, including marketing and public outreach for Sec. 6 of this act.

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

5 (1) one permanent exempt Staff Attorney; and

6 (2) one permanent classified Program Analyst.

7 (d) The sum of \$400,000.00 is appropriated to the Department of Public
8 Service from the General Fund in fiscal year 2024 for the positions established
9 in subsection (c) of this section, to retain consultants that may be required to
10 support verification and evaluation required by 30 V.S.A. § 8125(a), and for
11 associated operating costs related to the implementation of the Clean Heat
12 Standard.

13 Sec. 8. SECTORAL PROPORTIONALITY REPORT

14 (a)(1) On or before November 15, 2024, the Agency of Natural Resources
15 and the Department of Public Service, in consultation with the Agencies of
16 Agriculture, Food and Markets, of Commerce and Community Development,
17 and of Transportation and the Vermont Climate Council, shall report to the
18 House Committee on Environment and Energy and to the Senate Committees
19 on Finance and on Natural Resources and Energy regarding:

1 (A) the role of individual economic sectors in achieving the
2 greenhouse gas emission reduction requirements pursuant to 10 V.S.A.
3 § 578(a);

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

6 (C) the extent to which cost-effective, feasible, and cobeneficial
7 reasonably available greenhouse gas emission reduction measures are available
8 commensurate with each sector’s proportional contribution and emissions
9 reduction impact.

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

13 (b) The report shall make recommendations to the General Assembly to
14 amend 10 V.S.A. § 578 to include sector-specific greenhouse emissions
15 reduction requirements and, as necessary, subsector-specific greenhouse
16 emission reduction requirements for the purposes of informing and
17 appropriately scaling the implementation of programs and policies that achieve
18 greenhouse gas emission reductions. As used in this section, “sector” means
19 those established in the annual Vermont Greenhouse Gas Emissions Inventory
20 and Forecast produced by the Agency of Natural Resources pursuant to

1 10 V.S.A. § 582. The recommendations shall be made in consideration of the
2 factors established in 10 V.S.A. § 592(d).

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

8 Sec. 9. EFFECTIVE DATE

9 This act shall take effect on passage.

10 and that after passage the title of the bill be amended to read: “An act
11 relating to affordably meeting the mandated greenhouse gas reductions for the
12 thermal sector through efficiency, weatherization measures, electrification, and
13 decarbonization”

14
15 (Committee vote: _____)

16 _____

17 Senator _____

18 FOR THE COMMITTEE