239 S. Union St. #3
Burlington, VT 05401
350Vermont.org
(802) 444-0350
organizers@350vt.org

March 7, 2025

By email
Senate Committee on Natural Resources and Energy
115 State Street
Montpelier, VT 05633

Re: 350Vermont Comments on Senate Bill 65

Dear Senator Watson and Members of the Committee on Natural Resources and Energy:

350Vermont submits these comments on Senate Bill No. 65, entitled "An Act relating to energy efficiency utility jurisdiction." 350Vermont is a statewide, grassroots climate justice organization. We work at the intersections of the climate crisis and social justice to address the climate crisis equitably and effectively. We seek to promote a just transition off of all polluting, carbon-based fuels, which include both fossil fuels and biomass.

General Statement of Support for Bill

We thank the Committee for its work on the bill. We support the major components of the bill, which provide additional flexibility with regard to funding of energy efficiency utility (EEU) programs to improve efficiency in the use of electricity and thermal energy and process fuels (TEPF), and reduce greenhouse gas emissions. We applaud the bill's prioritization of reducing greenhouse gas emissions. We also support the bill's explicit recognition of electrification and support for attainment of building energy codes as appropriate goals of EEU programs.

Concern About Energy Efficiency Charge as a Funding Mechanism

As an organization committed to ensuring that the costs of transitioning to a low-carbon future are not unfairly burdensome to Vermonters least able to pay, we are concerned about continuing reliance on an energy efficiency charge- a charge based on the volume of electricity or gas consumed appearing on electric and gas utility customer bills- to fund the EEUs' programs. The charge is regressive in nature. It is paid by all customers, including those who lack the means to take advantage of programs offered by the EEUs, which would reduce their energy use and energy bills. These customers effectively subsidize customers with greater

financial means, who are able to take advantage of the EEUs' programs. We are grateful that the bill calls for EEUs to propose and for the Public Utility Commission to evaluate a "low-income energy efficiency rate." We also support the bill's requirement that the EEUs target 25% of annual budgeted funds to residential services for customers with low to moderate income and 12.5% of annual budgeted funds to small business and not-for-profit organizations.

We also share the concern that has been expressed by others that imposing a charge on electricity use, which the State seeks to promote to address the climate crisis, does not send appropriate price signals to induce customers to switch from more carbon intensive fuels to electricity.

For these reasons, we encourage the legislature to consider an alternative funding mechanism. This could be considered at a future date if it is not feasible to address the issue now.

Request for Elimination or Modification of Biomass District Energy Funding Authorization

S. 65 substantially rewrites 30 V.S.A. § 309(d)-(g). Unfortunately, however, the bill would retain a provision of the existing statute which permits the Public Utility Commission to authorize an EEU to spend funds "for the engineering, design and construction of facilities for the conversion of thermal energy customers using fossil fuels to district heat if the majority of the district's energy is from biomass sources, the district's distribution system is highly energy efficient, and such conversion is cost effective." 30 V.S.A. § 209(e). This provision, which starts at Page 13, Line 16 of Draft 1.1 of the bill,[1] is counter to the statute's purpose of promoting efficient use of energy and reduction in greenhouse gas emissions. It should be eliminated or modified as suggested below.

At the request of Burlington Electric, this language was added to the statute in 2018 and modified in 2019. Act No. 102, effective July 1, 2018; Act No. 31, effective July 1, 2019. Burlington Electric has relied on this provision to obtain TEPF funding for the so-called Burlington District Energy Project. As envisioned and presented by Burlington Electric to the legislature in 2018, the project would extract energy from the McNeil Generating Station's turbine and waste heat from the plant, and send hot water by pipe for heating and other thermal uses to multiple customers, including the University of Vermont Medical Center, the University of Vermont, hotels, government offices and businesses.[2] While construction was proposed to commence in 2018 with service starting in 2019, the project remains unbuilt. The current scaled back version of the project would provide steam rather than hot water to a single customer, the University of Vermont Medical Center, via a one and one-half mile long pipe. To date, the Public Utility Commission has authorized Burlington Electric to spend more than $1.8 million in

[1] All references to the bill in this statement are to Draft 1.1 of S.65, 2/26/2025 - EMC - 2:25 PM.
[2] *See*, eg., https://legislature.vermont.gov/Documents/2018/WorkGroups/Senate%20Finance/Bills/H.616/H.616~Darren%20Springer~Testimony-Powerpoint~3-23-2018.pdf.

TEPF funds on the project.[3] As of the fall of 2023, the total estimated project cost was $42 million.

The McNeil Generating Station, located in Burlington's Intervale, has been operating since 1984. McNeil burns wood from "whole tree chipping" operations to generate electricity. In recent years, it has provided between 32% and 45% of Burlington Electric's power supply. It is the largest stationary source of greenhouse gas emissions in Vermont. According to the EPA, it emitted 463,305 tons of carbon dioxide in 2024. Due to economic considerations, technical and wood supply issues it operates only about 50% of the time.

Use of EEU program funds for biomass-based district energy is contrary to the statute's intent to reduce greenhouse gas emissions because burning wood emits more carbon dioxide per unit of energy produced than burning any fossil fuel, including coal.[4] Further, truly low carbon sources of electricity, including solar, water and wind are increasingly available, and electricity from these sources can be used to provide heat. Thermal energy networks can provide heat based on energy pulled from the ground.

EEU funding of Burlington District Energy is inappropriate because pursuit of the project threatens to prolong operation of McNeil and its high greenhouse gas emissions, when Burlington Electric should be undertaking efforts to transition away from McNeil.

Burlington Electric is Vermont's only electric distribution utility which also serves as an EEU. Burlington Electric's failure and refusal to decarbonize its power supply by acquiring replacement power for McNeil, and its insistence on pursuing projects including Burlington District Energy, which will tend to prolong operation of the plant, severely undercut the value of its EEU programs in reducing greenhouse gas emissions. EEU measures, including rebates for heat pumps and electric vehicles, will significantly contribute to progress in addressing the climate crisis only if they are powered by electricity from low carbon sources.

As an organization that seeks to promote climate justice, 350VT is also concerned that pursuit of the District Energy project will prolong McNeil's impacts on environmental justice communities in Burlington's Old North End and Winooski. In addition to greenhouse gases, biomass plants such as McNeil emit significant amounts of other pollutants which are harmful to human health, including particulate matter, nitrogen oxides, carbon monoxide, sulfur dioxide, lead, and mercury.[5] Vermont's Environmental Disparity Index indicates that people living

---

[3] PUC Case No. 17-4927, Order of 1/11/2018; Case No. 19-3272-PET, Order of 8/26/2021; Case No. 23-1870-PET, Order of 11/3/2023.

[4] *See* John Sterman, William Moomaw, Juliette N. Rooney-Varga, Lori Siegel, *Does wood bioenergy help or harm the climate?* Bulletin of the Atomic Scientists, Vol 78, No. 3 (2022) 130, https://www.tandfonline.com/share/ZNXYXKZWENE2SHT56TDE?target=10.1080/00963402.2022.2062933.

[5] *See* https://www.pfpi.net/air-pollution-2/#:~:text=Burning%20biomass%20emits%20large%20amounts,hazardous%20air%20pollutants%20(HAPs).

around McNeil in Winooski and parts of Burlington are significantly more vulnerable to a range of environmental risks, including those posed by air pollution, than other Vermonters.

As an organization that includes many Burlington Electric ratepayers and is concerned with ensuring that ratepayers, especially those with lower incomes, do not bear unreasonable energy costs as we transition to a low carbon future, 350VT is also concerned that pursuit of District Energy, by prolonging McNeil's operation, will continue to put upward pressure on electric rates. Electricity from biomass is expensive relative to electricity from other sources. McNeil has been losing money in recent years. According to financial statements prepared by Burlington Electric, McNeil has generated losses of over $30 million over the last 9 years, including a loss of approximately $9.8 million in Fiscal Year 2024. This has been a driver of Burlington Electric rate increases totaling nearly 17% for Fiscal Years 2022-2024, with an additional increase of 5.5% proposed for Fiscal Year 2025. As 50% owner of McNeil, Burlington Electric bears 50% of the plant's losses.[6]

In addition to its high emissions of greenhouse gases and other harmful pollutants and its high costs, the McNeil plant is far less efficient than other means of generating electricity- the current plant is only 26% efficient. According to Burlington Electric, the district energy project would improve the plant's efficiency by about 10% to approximately 29%. In comparison, combined cycle natural gas plants can achieve efficiencies of greater than 60%, and modern combined heat and power biomass plants can achieve efficiencies of 70-90%.[7] The current statute's requirement that only a district energy distribution system must be highly efficient to qualify for EEU funding is flawed. While the Burlington District Energy project would improve McNeil's overall efficiency, it would have the effect of prolonging the life of a plant, which even at the improved efficiency of 29%, is highly inefficient. This is contrary to the statute's purpose of promoting efficiency and conservation. The 40-year-old McNeil plant would not be permitted or built today. Indeed, in 2014, the Public Utility Commission rejected an application for a certificate of public good for a combined heat and power plant in Springfield that would have operated at an efficiency of no higher than 28.1%, in part on the ground that it would involve an inefficient use of resources.[8]

The current plan to provide steam to UVMMC also threatens to lock UVMMC into reliance on relatively inefficient steam heat at a time when it is appropriate for the hospital to consider a transition to a thermal energy network. Modern thermal energy networks rely on relatively low temperature water, not steam. The piping for the District Energy project's steam

---

[6] If desired, we can provide documentation of McNeil's losses.

[7] *See* https://www.pcienergysolutions.com/2023/04/17/power-plant-efficiency-coal-natural-gas-nuclear-and-more/; https://www.sciencedirect.com/topics/earth-and-planetary-sciences/combined-heat-and-power#:~:text=Solid%20Biomass%20to%20Heat%20and%20Power&text=The%20total%20efficiency%20of%20cogeneration,Stirling%20engines%20for%20electricity%20production

[8] Public Utility Commission Case No. 7833, Order of February 11, 2014.

may not be suitable for or may be difficult to convert to use as part of a modern thermal energy network at the hospital or in other parts of Burlington.

For these reasons, the Committee should revise the bill so that it eliminates 30 V.S.A. 209(e), which authorizes the Commission to approve funding for biomass-based district energy projects. If the Committee wishes to retain that authorization, it should revise the subsection to impose a meaningful efficiency requirement of 65% and to modify other language which no longer makes sense given other changes to the subsection, so that it reads as follows:

"Notwithstanding any other provision of law~~In addition~~, the Commission may authorize an entity appointed to deliver such services under subdivision (d)(2)(B) of this section to use any of the Supplemental Funding outlined in subdivision (d)(4) of this section~~monies subject to this subsection~~[9] for the engineering, design, and construction of facilities for the conversion of thermal energy customers using fossil fuels to district heat only if the majority of the district's energy is from biomass sources, the district~~'s distribution~~ energy system is at least 65% ~~highly energy~~ efficient, and such conversion is cost effective."

Request for Modification of Burlington Electric-Specific Provision

We also have concerns about the language starting at Page 5, line 18 of Draft No. 1.1 of the bill, which would apply only to Burlington Electric, and request that it be modified to read as follows:

(D) ~~Notwithstanding subsection (c) of this section,~~ The Commission may authorize a retail electricity provider that is also an entity appointed under subdivision (d)(2)(A) of this section, to~~may~~ use ~~monies subject to subsection (c) of this section and~~ any of the Supplemental Funding outlined in this subdivision (4) to deliver thermal and transportation measures or programs that reduce greenhouse gas emissions~~fossil fuel use~~ regardless of the preexisting fuel source of the customer with special emphasis on measures or programs that take a new or innovative approach to reducing greenhouse gas emissions~~fossil fuel use~~, including support for staffing necessary to implement innovative building sector policies and modifying or supplementing existing vehicle incentive programs and electric vehicle supply equipment grant programs to incentivize high-consumption fuel users, especially individuals using more than 1,000 gallons of gasoline or diesel annually and those with low and moderate income, to transition to the use of battery electric vehicles. Funding for the engineering, design, and construction of facilities for the conversion of thermal energy customers using fossil fuels to district heat must meet the requirements of subsection (e) of this section.[10]~~The amounts available shall include amounts annually budgeted for thermal energy and process fuel funds or from Supplemental Funding, and any carry-forward thermal energy and process fuel funds or Supplemental Funding from prior~~

[9] This change is proposed because the proposed bill moves the sources of funds that had been listed in the subsection to subdivision (d)(4), so as written the language makes no sense.
[10] This last sentence should be deleted if the Committee accepts our request to delete subsection (e).

~~periods, on programs, measures, and services that reduce greenhouse gas emissions in the thermal energy or transportation sector.~~

The reasons for these requested changes are as follows: To be consistent with the bill's purpose of reducing greenhouse gas emissions the two references to "fossil fuel use," should be changed to "greenhouse gas emissions." Reducing fossil fuel use does not always reduce greenhouse gas emissions, and only programs that reduce greenhouse gas emissions should qualify for funding. Further, language should be added to make clear that the programs referenced in the paragraph must be approved by the Commission, like other programs subject to the statute. Likewise, any carryover of funds should be approved by the Commission. Because the bill eliminates the language in subsection (e), which required that certain funds be used for thermal energy and process fuel efficiency projects, the language "Notwithstanding subsection (e) of this section" makes no sense. Additionally, because the funding sources that had been listed in subsection (e) have been moved out of that section, the reference to "monies subject to subsection (e) of this section" does not make sense.

Other Requested Changes

Finally, we request that you also make the following changes to address apparent errors or improve the consistency of the language:

Page 1, lines 17-18- delete reference to "supporting efficient use of biological and fossil-based fuels" and change this provision to read- "Programs and Measures shall meet any and all applicable air quality standards of the Agency of Natural Resources." This would be consistent with the change that we understand is going to be made at Page 6, lines 17-19 to avoid reference to "biological" fuels. Regardless of the type of fuel, if there is an applicable air quality standard it must be complied with.

Page 4, line 12- delete "the" before "greenhouse gas emissions"

Page 7, line 8, and Page 8, line 12 – the charge is established by the Commission pursuant to subdivision (3), so we suggest changing "this subdivision (5)" to "subdivision (3) of this subsection (d)."

Page 7, line 18- change "reduction of greenhouse gases" to "reduction of greenhouse gas emissions" to be consistent with how this is stated elsewhere.

Page 15, lines 12-13 and 17-21- If you do not delete all of subsection (e), the definitions of "Efficiency Services," "Regulated fuels," and "Unregulated Fuels," should be deleted because they are not used in the subsection as revised.

Thank you for considering our comments and for your service to the State. Please contact Nick Persampieri, at nickpersamp@yahoo.com or (802) 552-8410, if you would like to discuss the issues addressed in this statement. Nick is a 350Vermont volunteer and retired environmental lawyer with extensive experience on climate change issues.

Respectfully submitted on behalf of 350VT,

/s/ Nicholas F. Persampieri
Nicholas F. Persampieri
350 VT Volunteer, Heating Working Group
nickpersamp@yahoo.com
(802) 552-8410

/s/Rebecca Dalgin
Rebecca Dalgin
Lead Organizer and Interim Co-Director
rebecca@350vt.org
(802) 522-6684