Clean Heat Standard Equity Advisory Group
Tuesday, November 12, 12:30-3:00 PM ET
Agenda

Meeting Link: https://cbi-org.zoom.us/j/87383177532

Participant Agenda

12:30	**Welcome & Review of agenda** ● Initiate recording	Mia
12:35	**Review and approval of 10/29/2024 meeting minutes**	Mia
12:40	**Updates from TAG liaisons**	Emily / Matt
12:45	**Updates from the PUC**	Dominic
12:50	**Public Meeting Feedback**	Ashira
1:10	**Public Comment**	Ashira
1:20	**Review and Approve Vermonters of Color Section** (with pause for public comment)	Ashira
1:50	**Review and Approve Renters Section** (with pause for public comment)	Ashira
2:10	**Review Limitations Section**	Mia
2:40	**Public Comment**	Ashira
	Working Groups (if time allows)	Ashira
2:55	**Next Steps**	Ashira
3:00	**Close**	Mia

Clean Heat Standard Framework

Limitations

The Clean Heat Standard is inherently limited by its market-based approach. By requiring the Obligated Parties, which are for-profit importers of fossil fuels, to deliver Clean Heat Measures[1] this framework will heavily encourage the adoption of the most cost-effective methods of reducing carbon emissions. While this could help contain costs for fuel customers overall, it will have significant limitations in reaching many Vermont households.

Cost considerations are likely to push Obligated Parties towards adoption of biofuels and renewable fuels where possible, and away from projects installed in homes, beyond the Act 18 requirement for 8% of Clean Heat Credits to be derived from measures installed in the homes of low-income households and 8% from low or moderate-income households. These installed projects are likely to cost more than delivered fuels or installed measures in the homes of higher income households, and therefore are economically disincentivized under the CHS.

Commented [MW1]: We should put a citation here, if possible. I think the Potential Study implies it, but I don't see a section that explicitly stated it.

Low- and moderate-income households have less capacity to take on debt for projects than higher-income households. Installing Clean Heat Measures in these homes will require larger incentives, or in some cases, will require the project to be fully paid for by another entity. This is expected to increase the cost of producing credits associated with these households.

Lower income households are more likely to live in older homes, which often need significant repairs or enabling upgrades to allow weatherization work or a heat pump installation to proceed[2]. A Clean Heat Standard only permits credits to be generated from activities that reduce thermal emissions. Therefore, no direct economic value can be derived from enabling repairs. This likely means that few Obligated Parties will pay for home repairs unless there is such a shortage of low-income-related credits that it becomes necessary to allow those projects to occur.

The type of projects that are likely to occur under a Clean Heat Standard also may not align well with State priorities. The State has made weatherization a policy priority, as it has proven financial and health benefits for households, in addition to its ability to reduce fuel

[1] Either directly themselves or through the Default Delivery Agency.
[2] This issue is discussed in detail later in the report.

use and emissions[3]. However, weatherization is likely to be less cost-effective than other installed methods like heat pumps, which may limit its implementation. And while weatherizing a home before installing a heat pump is considered best practice by building science experts, there is no requirement or economic incentive under the Clean Heat Standard to encourage it if it proves more costly to do so.

Commented [MW2]: I'm curious if there's a way to predict the cost per credit for these activities, based on what's known from the TRM?

In considering the impact of a Clean Heat Standard, the State should not assume that any non-required, cost-ineffective activity will occur beyond what is funded by other state and federal programs. The State must plan accordingly to ensure that its policy goals can be achieved, and that Vermont's low-income and disadvantaged communities are not left behind. Detailed recommendations for reaching many of these groups are discussed later in the report.

Workforce

Workforce may also be a considerable challenge in the implementation of a CHS. The Vermont Department of Public Service's Clean Heat Standard Potential Study Report[4] highlights the significant challenges that Vermont's clean energy employers have faced in attracting and retaining workers. This concern has also been echoed by EAG members with experience in the field and in conversations with Vermont's Community Action Agencies that implement the Weatherization Assistance Program (WAP)[5].

The Potential Study Report suggests that reaching Vermont Global Warming Solutions Act (GWSA) targets under the CHS will not be possible without a significant increase in the clean energy workforce, especially for weatherization workers.

Vermont policy makers have demonstrated awareness of these challenges, including developing a Weatherization Workforce Plan in 2021 and in-progress work on launching a new Weatherization Training Center using grant from the Department of Energy to[6] .

Ultimately, the State's adoption of the Clean Heat Standard must be contingent on its confidence that the workforce will expand quickly enough to carry out the projects required to meet GWSA goals.

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[3] Vermont Department of Health, "Weatherization + Health in Vermont", December 2018.
[4] NV5, *Clean Heat Standard Assessment of Thermal Sector Carbon Reduction Potential in Vermont.* Prepared for the Vermont Department of Public Service. September 1, 2024
[5] Notes from Clean Heat Standard (CHS) Conversation with representatives from the Community Action Agencies and the Public Utility Commission on September 26th, 2024.
[6] State of Vermont Joint Fiscal Office. Memorandum on Expedited Review Request – JFO #3147. May 1, 2023.

Benefits

Costs

Clean Heat Standard demographic impacts

Renters and landlords

Overview

In Vermont about 27% (approximately 72,636) of households are renters.[1] Vermont renters live in a variety of housing types, not limited to multifamily structures. An estimated 17,029 renter households or 23% of renters live in single family homes, and 3,215 (4%) live in manufactured homes[2].

Vermont renters tend to have disproportionately lower incomes, with 51% of them (approximately 36,711 households) earning at or below 60% of the Area Median Income (AMI), and 80% earning below 120% of AMI.[3]

A significant majority of renter households, 77%, rely on fossil fuels for heating.[4] Data on which Vermont renters pay for which utilities is limited, but Census data indicates that only about 23% of renters (16,447 households) have all utilities included in their rent.[5] The remaining three quarters of renters may have any combination of water, heat, and electricity included or not included in their rent.

According to the Department of Energy's Low-Income Energy Affordability Data (LEAD) tool[6], Vermont renters at 30% or below the AMI face an energy cost burden of up to 15%. For those earning between 30% and 60% of AMI, the energy burden can reach up to 7%. An energy burden of 6% or above is considered high.

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[1] U.S. Census Bureau: American Community Survey 5-year estimates, 2018-2022 (Table B25032) housingdata.org
[2] U.S. Census Bureau: American Community Survey 5-year estimates, 2018-2022 (Table B25024) housingdata.org
[3] U.S. Census Bureau: American Community Survey 5-year estimates, 2018-2022 (Table B25118, B25119) housingdata.org
[4] U.S. Census Bureau: American Community Survey 5-year estimates, 2018-2022 (Table B25040) housingdata.org
[5] U.S. Census Bureau: American Community Survey 1-year estimates, 2022 (Table B25069). It is likely that a significant portion of these households with utilities included in rent reside in subsidized housing, particularly senior housing, where this practice is more common.
[6] U.S. Department of Energy, *Low-income Energy Affordability (LEAD) Tool*, 2024

Seventy-seven percent of the households receiving fuel assistance from the Low-Income Home Energy Assistance Program (LIHEAP) are renters[7]. LIHEAP has been discussed in detail previously in the section of this report on low-income households but will have a disproportionate impact on renters. In the 2023-2024 heating season, 50% of all LIHEAP households rented and paid for all utilities, and 27% were renters with another utility arrangement.

Existing challenges / gaps in existing programs

Technical Challenges

An earlier section of this report discussed the technical challenges in weatherizing and electrifying Vermont's existing housing stock, and many of these issues will be encountered in rental homes. Over 33% of rental housing in Vermont was built in 1939 or earlier.[8]

Implementing clean heating systems in rental housing can be challenging due to the diversity and complexity of the housing stock. Different housing types will require different programs and approaches to implementing new technology. Many of Vermont's renters live in older single-family homes converted to multifamily structures[9], with floor plans that can make it difficult to install clean heat technology, such as mini-splits.

New construction can and should design around electrified systems. However, these systems are more complex and can require more long-term costs due to skilled maintenance needs. These additional upgrades increase the developer's cost of the project, potentially reducing the incentive to decarbonize the heating system.

Financial Challenges

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[7] Presentation from Richard Giddings, Director of Heating and Utility Assistance Programs, DCF-Economic Services to the Equity Advisory Group, July 9, 2024.
[8] U.S. Census Bureau: American Community Survey 5-year estimates, 2018-2022 (Table B25036) housingdata.org
[9] U.S. Census Bureau: American Community Survey 5-year estimates, 2018-2022 (Table B25032). Determining the physical character of buildings from survey data is difficult, however there are 25,627 renter households or 35% of all renters that live in smaller multifamily buildings with between two and four apartments.

Rental property owners and tenants face similar challenges to homeowners when it comes to adopting clean heat measures, such as upfront costs, complexity of retrofitting, and the need for specialized systems. However, additional impediments arise due to the split financial incentives between property owners and tenants that homeowners don't face. Some efficiency programs are not also available in rental properties link to program guide. Unless crafted correctly, low- and moderate-income renters may not realize any benefits of the CHS, though they may still be burdened with higher fuel costs.

Some landlords have made significant efficiency investments in their properties, while others financially are unable to or are unwilling to. In addition, there is a wide range of financial capacity and technical expertise among property owners, with some rental property companies owning hundreds of units, and some 'mom and pop' landlords only owning a single unit.

Renters often face challenges in reducing their fossil fuel use due to what is commonly called the "split incentive"[10]. When tenants are responsible for paying for heating expenses separately from rent, the benefits of energy efficiency upgrades such as reduced utility costs and greater comfort are enjoyed by tenants, while the costs of making these investments are typically covered by landlords, who do not directly benefit from savings. This misalignment of financial incentives can discourage landlords from investing in efficiency improvements, leading to challenges in reducing overall carbon emissions and utility costs in rental properties.

Special considerations for subsidized affordable housing

Approximately 14,670 renter households, or 18% of all Vermont renters, live in multifamily subsidized affordable housing.[11] Subsidized housing serves Vermont's lowest-income households, with half of residents earning less than $17,000[12].

While these households benefit from cost protections due to housing funding restrictions that cap both overall housing costs and estimated utility expenses, many still face significant financial burdens. Meanwhile, affordable housing property owners still

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[10] Hynek, Levy and Smith, "Follow the Money": Overcoming the Split Incentive for Effective Energy Efficiency Program Design in Multi-family Buildings. American Council for and Energy-Efficient Economy, 2012.
[11] Vermont Directory of Affordable Rental Housing, September 2024 via housingdata.org. These include buildings developed with public funding subsidies, such as Public Housing, HUD's HOME Program, HUD Community Development Block Grants, USDA Rural Development, the Low-Income Housing Tax Credit (LIHTC), and other programs with rental affordability long-term or permanent affordable rent restrictions attached to the apartment unit.
[12] Vermont Housing Finance Agency analysis of HUD Low Income Housing Tax Credit (LIHTC) data, 2021.

face split incentive challenges. As they cannot raise limits on rent beyond modest annual approved increases, they rely heavily on scarce housing funding subsidies to make any energy investments.

The energy-related investments needed to construct new apartments in line with Efficiency Vermont's High-Performance track (required for projects funded by Vermont Housing Finance Agency and Vermont Housing & Conservation Board) is estimated to cost over $62,000 per multifamily unit[13]. However, Efficiency Vermont is restricted to offering rebates based on savings achieved beyond code, meaning that with each code update, it becomes more difficult to demonstrate the savings and recover costs. Affordable housing developers receive only up to $3,700 per unit from Efficiency Vermont to cover additional costs beyond basic code, leading to an estimated gap of $1.8 million in upfront costs for an average affordable housing project.

There are numerous long-term benefits to highly efficient building design. However, the lack of full incentives means that most of the cost is borne by public funding intended for building or maintaining affordable housing, making it more challenging for affordable housing funders and developers to house the most vulnerable Vermont renters.

Policy and Funding Program Gaps

Vermont's Residential Rental Housing Health & Safety Code[14] has some basic requirements for landlords to provide properly functioning heating systems and make the building 'weathertight'. When a code violation is suspected, tenants must appeal to their landlords to make repairs, and if they do not, the tenant must report a violation to the Division of Fire Safety. This can be a challenging process for tenants in a tight rental market, who may fear retaliation or non-renewal of the lease. Even when landlords properly follow the Health & Safety Code, there is no obligation to help limit the fuel consumption or costs of their tenants.

The most effective program for assisting renters and overcoming the split incentive in Vermont is the Weatherization Assistance Program (WAP).[15] It is estimated that 30% to

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[13] Vermont Housing Finance Agency, Assessing energy rebates in Vermont affordable housing, September 2024.
[14] Vermont Department of Public Safety, Vermont Residential Rental Housing Health & Safety Code, 2022.
[15] Weatherization Assistance Program (WAP) – Program that provides funding for home energy efficiency upgrades to low-income households, helping to reduce energy costs, improve comfort, and lower carbon emissions.

40% of homes weatherized each year by WAP are renter-occupied.[16] There are an estimated 50,833 renter households under 80% AMI, equal to about 70% of all renters[17].

Buildings with low-income tenants are eligible for WAP to fully cover cost-effective weatherization measures and heat pumps[18] once any required health and safety upgrades and repairs are paid for by the landlord. In 2023, the estimated average energy savings for households that utilized WAP was 30%.

However, WAP only serves renters or properties with tenants at or below 80% AMI. An estimated 21,803 Vermonters or 30% of renters are above this threshold and would not qualify for WAP services. More households may be income eligible but live in a building with higher income households that is excluded from multifamily WAP eligibility[19].

Existing weatherization incentives outside of WAP are inadequate to cover the costs of additional upgrades to buildings that would allow weatherization and electrification projects to be implemented. Emily to find data on non-WAP renter projects completed. If a private landlord incurs costs that are not covered by existing funding programs, it is likely that those additional costs will be passed onto tenants through increased rents.

Vermont Housing Finance Agency (VHFA)[20] offers a state-funded pilot on-bill financing program called the Weatherization Repayment Assistance Program (WRAP), which landlords can participate in with renter consent[21].The program is targeted to households between 80-120% AMI. The renter pays the program charge on the utility bill until they move and experiences the benefits of lower heating costs, at which time the next tenant takes over the charges on the utility bills. There has been a slow program uptake overall, especially among renters. It may be difficult to make the case for renters to invest in a property they do not own, even if they can save on costs.

In Burlington, the Minimum Housing Code Weatherization Ordinance "is designed to ensure that rental properties are also properly weatherized to keep tenants warm in the

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[16] 2024 Report on Performance Indicators for the Vermont Weatherization Assistance Program
[17] U.S. Census Bureau: American Community Survey 5-year estimates, 2018-2022 (Table B25118, B25119) housingdata.org
[18] This is a temporary program offered using federal ARPA funds.
[19] Ben to cite technical manual – 2/3 of units must be 80% AMI or lower
[20] Vermont Housing Finance Agency (VHFA) – Non-profit organization that provides financing, grants, and support to promote affordable homeownership and rental housing opportunities for low- and moderate-income residents in Vermont.
[21] Additionally, WRAP is only available in properties with 4 or fewer units. Vermont Housing Finance Agency, WRAP: Frequently Asked Questions. Retrieved Retrieved October 24, 2024.

winter, cool in summer, and reduce costs, while helping the city achieve its net zero energy goals."[22] This municipal ordinance applies to high energy use rental buildings and is enforced by the Department of Permitting & Inspections (DPI) to ensure compliance. Currently, no statewide ordinance or enforcement mechanism exists to ensure adequate weatherization in rental properties. Though Burlington has a strong policy and enforcement process in place, project implementation has proved difficult due to workforce constraints. Ben to research – Pike's draft language: It should be noted that Burlingtons net zero energy goals are to reduce and eve ntually eliminate fossil fuel use in the thermal and ground transportation sectors, not to r educe greenhouse gasses.

Recommendations

Expand weatherization opportunities targeted to rental properties

In addition to investing in the state's Weatherization Assistance Program (WAP), as discussed previously, the State should explore investments in weatherization and home repair programs that can benefit renters that are not income-eligible for WAP.

Recommendation

Expand weatherization programs targeted to moderate income renters, using existing programs where possible

The Vermont Housing Improvement Program (VHIP)[23] offers grants or forgivable loans to rehabilitate existing vacant units, bring existing units into code compliance, or create small new multifamily units. Rehabilitation projects can include weatherization improvements, but it is not the primary purpose of the program.

VHIP has been a successful program to bring new housing units online quickly and cost-efficiently. The State could explore expanding VHIP or creating a similar program to include projects that primarily include weatherization or incorporate other clean heat technology like heat pumps.

In any program, threading together assistance for home repairs and weatherization may help encourage landlords to address the comprehensive needs of a unit.

Any state weatherization program that pays for most or all of a landlord's project costs should also be paired with restrictions to prevent tenant displacement as a result of the improved property. Receiving a 10-year forgivable VHIP loan requires the landlord to

[22] Burlington Minimum Housing Code Weatherization Ordinance
[23] Vermont Agency of Commerce and Community Development. *Vermont Housing Improvement Program 2.0*. Retrieved October 23, 2024.

rent the unit at or below HUD Fair Market Rent for the area for at least 10 years. Similar investments in weatherization outside of WAP could be tied to a similar compliance agreement.

Recommendation

Pair substantial state investments in rental properties with tenant protections to limit displacement

Beyond grants, overcoming the upfront costs of extensive building upgrades may require additional financing options such as further incentives and financial support for home repairs, code upgrades, and electric service upgrades. This could include requirements to ensure that only landlords who demonstrate financial need or lower-income or moderate income tenants receive favorable rates. While landlords should be financially responsible for home repairs, such as removing vermiculite or upgrading wiring, low-interest loans could be offered to ease the financial burden, especially when low-income residents are involved.

Investments in window heat pumps

Recommendation

Incentivize adoption of window unit heat pumps and create companion regulations to allow renters to access technology

New window-based heat pump units are just beginning to become available to consumers. The units[24] can be self-installed in a standard single or double-hung window and standard outlet, include cold-climate heating capacity, and currently retail for $3,800. These products are currently being tested in pilot projects by the New York City Housing Authority[25] and Efficiency Vermont[26].

Portable heat pump technology has the potential to be transformative to reach households that cannot easily install traditional heat pumps, especially renters. A renter could use a window unit heat pump to reduce their fossil fuel use and save money while living in a rented home and take the equipment with them when they move. State incentives for portable heat pumps could help overcome the split incentive and encourage more equitable adoption of clean heat measures.

In feedback to the Commission on the Clean Heat Standard Draft Rule, the EAG recommended that a Clean Heat Standard framework accommodate window heat pumps as an eligible installed measure for credit requirements for low and moderate income

Commented [MW1]: Confirm this matches final EAG comments on draft rule

[24] Gradient All-Weather 120V™ Window Heat Pump. Retrieved October 21, 2024.
[25] Grist, "How NYC's public housing authority plans to transform the market for clean heat", January 24, 2022.
[26] Efficiency Vermont, "Take control over your heating and cooling—for free: Enroll in a pilot program to test an exciting new technology for renters". Retrieved October 24, 2024.

households. The EAG also recommended that credit ownership rules be revisited if window heat pumps were considered eligible clean heat measures. Section 8.113(a)(1) of the Draft Rule stated that for installed measures "the individual or entity that owns the building in which the measure is being implemented is the initial owner of the measure attributes created by the implementation of that measure." The EAG recommended to the Commission that if a renter purchases a portable window heat pump, the ownership of the credit and any potential related financial benefit from transferring it to an obligated entity, should belong to the renter, not the property owner.

Currently, portable heat pump technology is still largely untested, and the energy savings and long-term reliability of the equipment must be verified. However, if it can be proven to deliver long-term benefits to customers, the EAG recommends that the Legislature find ways to invest in incentives for technology, especially targeted to renter households.

If window heat pumps are proven to be effective and become common, additional action may be needed to ensure renters have access to window unit heat pumps. Landlords often prohibit renters from using window unit air conditioners in lease agreements. Banning window units often result from landlords' valid concerns about property damage and safety. However, these restrictions could be a serious roadblock to widespread adoption of heat pumps in Vermont's existing, varied housing stock.

In addition, as extreme heat events become more common, access to cooling is essential to reducing heat-related illness and death[27]. Vermont's Residential Rental Housing Health & Safety Code requires habitable temperatures but does not have detailed rules about permitting or providing air conditioning[28]. Access to cooling equipment, from either a traditional air conditioner or a heat pump, is increasingly necessary for equitable climate adaptation.

Rental safety code enforcement

If the State wishes to reduce fossil fuel use in rental properties and overcome the split incentives, it may need to go beyond its current practice of offering financial incentives to landlords and consider creating clear requirements. At a minimum, the State should explore ways to add basic weatherization components to

Recommendation

Add basic weatherization requirement to Vermont Residential Rental Housing Health & Safety Code

[27] World Health Organization, *Heatwaves*. Retrieved October 23, 2024.
[28] Vermont Legal Aid, Summer Heat, Air Conditioning and Rental Units. May 22, 2024. Retrieved October 23, 2024.

its Health & Safety Code, ensuring that units have appropriate insulation, air-sealing, and ventilation.

This may well be difficult to enforce within the State's current complaint-based system and lack of rental registry, which leaves most rental homes in the state uninspected and the current code often unenforced. The City of Burlington's similar ordinance has faced significant challenges with this approach, and workforce shortages are being felt statewide. The State could consider phasing in weatherization requirements over time to give landlords ample opportunity to secure contractors.

However, despite these significant challenges, the status quo is all but guaranteed to leave renters behind as Vermont transitions away from fossil fuels. A significant realignment of state policy will be necessary to ensure that renters can receive the benefits of a Clean Heat Standard.

Low-income households

Overview

As Vermont implements the Clean Heat Standard to reduce carbon emissions, low-income households, which often struggle with higher energy burdens and less ability to afford additional household expenses, face unique challenges in pursuing emission reductions and heating fuel transitions. Low-income households often do not have the financial means to adopt cleaner technologies and, without adequate support to pay for heat, may experience housing instability, creating further social and economic problems.

One of the core challenges Vermont will face under the Clean Heat Standard is balancing the need to decarbonize home heating systems with the immediate need to provide heating support to those who cannot afford it.

It is estimated that there are 77,843 Vermont households earning at or below 60% of the Area Median Income (AMI), which is nearly one-third of all Vermonters[1]. At the state level, 60% of area median income is $49,200 for a two-person household[2]. Due to its high homeownership rate, Vermont has a larger number of low-income homeowner households than low-income renter households, but a higher percentage of renter households have lower incomes. Low-income households are also more likely to have older members, to be non-white, and to live in manufactured homes[3].

Challenges

Energy burdens

Many of Vermont's low-income households face very high energy burdens, the percentage of a household's income that is spent on energy costs, including electricity, heating, and transportation. An energy burden of 6% or above is considered high by the U.S. Department of Energy, however, Vermont households earning 30-60% of the state AMI have an average energy burden of 11%. For households earning 30% or below the AMI, the average energy burden is 24%[4]. Vermont households with lower incomes tend to use higher cost heating sources, including fuel oil and inefficient electrical resistance heat[5].

Having a high energy burden makes it very difficult for households to afford other essential expenses. Energy burdens for households experiencing poverty in Vermont are particularly high, with households earning less than 100% of the Federal Poverty Line (FPL), facing an energy burden of 31%[6]. An estimated 60,413 Vermonters, or nearly 10% of the state's population, live in poverty[6]. It is estimated that high energy burdens can increase a

household's risk of falling into poverty or experiencing prolonged poverty by 150-200%[7]. A substantial body of research links lack of access to affordable heating to eviction, food insecurity, health risks, and poorer educational and career outcomes[8].

In addition to the data, the Equity Advisory Group has heard public comments from many Vermonters struggling to afford basic living expenses, including heat. While any higher heating costs under the Clean Heat Standard will be experienced by all Vermonters heating with fossil fuels, the impact will be felt the most by the state's low-income households.

Financial

Low-income households tend to have less access to credit to finance home improvements and tend to be unable or very reluctant to take on any additional household debt[9]. These households may require deep financial assistance for heating costs, weatherization services, or heating system upgrades.

LIHEAP

LIHEAP is a federally funded program designed to support low-income households with heating costs. This program is administered by the Economic Services Division (ESD) of Vermont's Department for Children and Families. The financial assistance provided by this program helps lower the energy burden for eligible households by reducing the cost of their primary heating source. This assistance is especially critical for households that use expensive sources of heat including oil and kerosene[GW1] [GW2] - these sources are also carbon intensive and produce higher emissions than some alternatives. Of all LIHEAP recipients, 53% heat with oil and kerosene, 19% with propane, 11% with natural gas, 12% with wood and pellet stoves, and 5% with electric.[10] Kerosene tends to be most expensive (Geoff[GW3]). Eligibility for LIHEAP is based on household income (185% of the FPL) and size, with priority given to those with the lowest incomes and highest energy burdens. The program is available for homeowners and renters – 20.7% of recipients own, 49.8% rent and pay for all utilities, and 27.2% rent and pay for some utilities. Households that are approved for heating assistance are also eligible for free weatherization services to improve home energy efficiency, helping to lower heating costs over time. In addition to heating assistance and Weatherization[GW4] , the program offers crisis support for households facing immediate heating emergencies. This program is available to households that are receiving seasonal heating fuel assistance as well as households that earn up to 200% of the FPL. The ESD receives approximately 36,000 applications per year. It is projected that approximately 18,500 households will receive a benefit in FFY2024. The full-season benefit for each household for FFY2024 is projected to be around $897, a reduction from the prior year of about $600. This award only covers a portion of a household's home heating needs and can depend on a household's primary fuel type. In the 2023-2024 heating season, on average it LIHEAP only covered 28% of household heating costs. [11]

Average Annual Fuel Costs for Households at 200% FPL or Below *Sorted by Heating Fuel Type**[12]***	
Fuel Type	**Average Annual Energy Cost**
Utility Gas	$2250
Bottled Gas	$4226
Fuel Oil	$4097
Wood	$4037

The harm of a CHS on LIHEAP Recipients (Section from Matt Cota – highlighted line was added from discussion notes)

Anyone receiving free heating fuel in Vermont through the federal Low Income Home Energy Assistance Program (LIHEAP) also qualifies for free weatherization. Administered by the Vermont Office of Economic Opportunity through its community action agency partners (one of which is not a community action program), these weatherization services are paid for by a 2-cent per gallon fuel tax on oil heat, kerosene, and propane, as well as a gross receipts charge on utility gas and electricity sold in Vermont. [GW5] . This depends on the action taken by the owner of the building, who does not have the same financial incentive to make efficient investments and is not impacted by the clean heat compliance fee. Half of the families receiving fuel assistance rent their homes and pay their heating fuel bills.

Under 30 V.S.A. § 8124 (i), the clean heat fee will be added to the price per gallon paid for by the state of Vermont when administering the Fuel Assistance Program. The law states that the Margin Over Rack (MOR) “shall reflect the default delivery agent credit cost established by the Commission.” The MOR is the fixed price fuel dealers can charge a customer receiving fuel assistance funds. It changes daily and is based on the average of the average rack price in four different terminal locations (Albany, Burlington, Portsmouth and Springfield, MA). Oil heat, kerosene, and propane dealers can choose whether to participate in the fuel program under the terms and conditions established by the state of Vermont. Dozens of fuel dealers have chosen not to participate (there are only 162 certified suppliers as of 12/6/2023). This is a good thing. If the clean heat compliance fee is 70 cents per gallon, as the Secretary of the Agency of Natural Resources predicted, this vital program would be in jeopardy without this provision. However, there is no denying that it will reduce the purchasing power of the state of Vermont in providing

heating fuel to low-income Vermonters. As fuel prices increase, LIHEAP dollars will not go as far for consumers, therefore increasing their out-of-pocket costs (John McCormick public comment).

It will also reduce the purchasing power of low-income Vermonters. It should be noted that fuel assistance funds only pay for about half the gallons needed during a typical Vermont winter (in 2023-2024, the average benefit was $963). The consumer pays the rest of the heating bill. The higher the compliance fee, the more regressive this policy is on low-income Vermonters who rent or own homes that cannot easily adopt clean heat measures. This is true in kerosene-heated homes. While kerosene (required in outdoor tanks typically found on modular homes that lack basements) represents less than 8% of the overall market, it accounts for 16% of LIHEAP homes. Compared to heating oil, kerosene cannot be blended as easily or inexpensively with renewable biofuels. An amendment was offered during the legislative process to allow homeowners who heat with kerosene to receive credit for switching to a lower-carbon fuel, such as propane, but that provision did not make it into the final draft. Another equity concern is that many modular homes that rely on kerosene for heat and hot water lack 200 amp service and can not easily or affordably install electric heat. These modular homes often have exposed water pipes and require combustion heat.

The benefit to low-income Vermonters from a CHS is that the state-run Low Income Weatherization Assistance Program's sale of credits to obligated parties will increase their funding beyond the existing fuel tax. This could allow for more homes to be weatherized.

Weatherization Assistance Program

In Vermont, many low-income households face significant challenges when it comes to heating, cooling, and maintaining their homes in a safe and dry condition. Existing assistance programs, such as the Weatherization Assistance Program (WAP), aim to provide support, but they serve only a fraction of the population in need. WAP helps low-income households pursue energy efficiency improvements as well as related health and safety work such as installation of ASHRAE compliant indoor ventilation. With one time funds (3 years) the program has been able to install heat pump water heaters and mini split heat pumps if it would reduce a clients utility bills and was a good fit fort he home. (and heating electrification[GW8] projects). Eligibility for this program is determined by county, household size, and varying income requirements. The scope of services for the core Weatherization funding is the same, with addition of independent one time funds as they exist such as ARPA funds for Home Repairs, Vermiculite remediation, heat pump installation and EPA certified wood and pellet stove installation. creating a complex but holistic program. Funding sources for programs include the Department of Energy (DOE) grant, the American Rescue Plan Act State Fiscal Recovery (ARPA-SFR) Fund, and the Home Weatherization Assistance Program (HWAP). [GW9] Different income guidelines between state and federals Wx funds can cause complexity but those receiving Fuel Assistance are auto qualified for all funding sources, and are the priority for the program to serve.

DOE funded project income eligibility is 200% of the FPL or below. For HWAP and ARPA-SFR WAP projects, income eligibility is the greater of the 80% AMI or the 80% State Median Income (SMI). Though households that earn between 61% and 80% of the AMI as determined by the Department of Housing and Urban Development are eligible, priority is given to those at 60% or below.[13] People just above the income cutoff for WAP are still struggling to participate in weatherizing and system upgrades. Though there are a variety of programs, they are very difficult to navigate (BB). According the 2024 Vermont Housing Needs Assessment, in FY 2023, WAP assisted 1,139 households, including 176 manufactured homes and 23 shelter units. The average investment was $11,869 per household.[14] [PLACEHOLDER FOR DATA ON HOW MANY PEOPLE APPLY FOR WAP/ARE ON WAITLIST]. It is estimated that there are 105,724 households that earn 80% or less of the state AMI[15], with 77,843 below 60% or below.[16]

Weatherization programs struggle to meet the demands of households that require not only energy efficiency improvements but also critical structural repairs such as leaky roofs, wet basements, vermiculite insulation or other asbestos issues in a home, etc. that enable weatherization (Geoff). Structural repairs, abatement of hazardous materials, [GW10] are often prerequisites to any weatherization efforts funded through WAP programs. Currently,the program does have more Home Repair and Vermiculite funding than ever before, however these one time funds (through ARPA) are coming to an end in the next year.. “The largest barrier to low-income home weatherization continues to be the presence of vermiculite insulation, a material known for containing asbestos. There are also many other structural issues present in Vermont's older housing stock that can prohibit weatherization, such as leaky roofs, wet basements, knob and tube wiring, and other structural issues.”[17] 10% of homes in Vermont contain vermiculite insulation - the cost of removing vermiculite alone can range from $10,000 to $20,000, making it an insurmountable barrier for low-income families (From Discussion notes – no citation).[18] In Vermont, 25.5% of homes were built in 1939 or earlier.[19] The additional costs associated with these barriers to weatherization can prevent many homeowners from pursuing weatherization and heating system transitions. While efforts are made to connect clients with resources for repairs, the conversion rate is low, as many cannot afford even minimal repairs (Geoff[GW11]). For many households, the only feasible way to complete these necessary improvements is if they are entirely funded by the Weatheirzation Program. For example, even when weatherization services are provided at no cost, the additional costs associated with these preliminary repairs and safety measures prevent many households from being able to receive Weatherization. This can be especially true in case where the LIHEAP recipients are renters, as there are challenges with incentivizing landlords to pursue weatherization. This is due to a variety of factors, including their obligations to ensure that their property is fully code compliant[GW12] before WAP provides weatherization services. Additionally, if a landlord utilizes the WAP services, they are required to sign a rent stabilization agreement that places a limit on rent increases over a certain period (MC).

Existing programs are insufficient to address the full scope of need[GW13] – as fuel prices increase so will the need for consumer assistance. The challenges go beyond the financial strain of paying for heat; they also involve the complexity of decarbonizing homes efficiently. For low-income Vermonters, there is currently no cost-effective or rapid method to decarbonize

Commented [1]: Mention structural barriers but reference section above for details

Commented [2]: Same

home heating systems, which will leave low-income households subject to rising fuel prices as the CHS is implemented. The investments required to transition homes to lower emitting fuel sources could not have the necessary returns to meet Vermont's reduction targets. Studies have shown that it is typically higher income households that generate more carbon emissions[20].

Eligibility gaps

Eligibility for energy-related assistance targeted at low-income households depends on location, program guidelines, and household size. The CHS definition of a low-income household for the purpose of low-income credit requirements is 60% or below of the AMI[21].

Program	Eligibility Threshold	Annual 2024 income limit (for two-person household)
Clean Heat Standard	60% AMI	$49,200
Low-Income Home Energy Assistance Program (LIHEAP)	185% of FPL	$37,814
Energy Assistance Program (EAP) – GMP and VGS	185% of FPL	$37,814
Weatherization Assistance Program (WAP)	80% of AMI	$65,500

Eligibility for other programs, including the Low-Income Home Energy Assistance Program (LIHEAP) and ratepayer assistance offered through Green Mountain Power and Vermont Gas, is limited to household earning 185% or less of the Federal Poverty Line (FPL). For 2024, 185% of the FPL is $37,814.00 for a household of two.[22] Meanwhile, the Weatherization Assistance Program (WAP), limits assistance to households at or below 80% AMI[23], with additional priority targeting for lower-income households.

This highlights the challenges related to varying income eligibility requirements. Vermont households typically categorized as low-income for the purposes of state programs may not be eligible for fuel assistance, while other households eligible for WAP would not be eligible for credit-generation for low-income requirements under the CHS.

Confusion over eligibility

Inequitable distribution of investments

Vermont's low-income households use less energy and contribute less to the state's emissions than higher-income households, yet the costs of the energy they do use represent a much higher proportion of their income[24]. A report from Efficiency Vermont also suggests that the towns with the highest energy burdens, which tend to have lower average incomes, have had significantly less adoption of cold-climate heat pumps and other efficient technologies than higher income towns with lower

Recommendations

As Vermont moves toward implementing the CHS, it is crucial to ensure that it does not disproportionately burden low-income households, while still addressing broader climate and energy goals. The PUC must consider several key factors in balancing the economic needs of residents with the emissions reduction goals of the state.

Program Alignment

To address long-term funding challenges, Vermont needs to consider a comprehensive approach to merging and coordinating state and federal programs that serve low-income households. When temporary federal funds, such as those from the American Rescue Plan Act (ARPA), run out, the state will still have access to DOE Weatherization Assistance Program funds and other resources. However, Vermont will face a funding cliff, and the PUC will need to "braid" different funding sources together to maintain an adequate level of support for weatherization and heating assistance. Additionally, the PUC should work to ensure that new programs, such as those from the Department of Public Service's HOMES and HEAR[GW21] programs, are integrated with weatherization efforts to maximize their impact. Weekly coordination with DPS staff is already underway, and this collaborative approach will be essential in ensuring that Vermont residents benefit from these funds.

Increase Program Funding

Commented [3]: Clean up increased funding topic umbrella, including wap/liheap specifics

Supporting and expanding existing program, rather than creating new programs (taking advantage of compliance and oversight systems in place)

Reliable and consistent resources - important for workforce

Increase WAP workers salaries

Weatherization is a vital strategy to reduce energy consumption and costs for low-income households and should be a key priority (Johanna Miller-public comment). Many of these homes, especially those already receiving LIHEAP funds, would benefit from weatherization improvements (SS). Allocating compliance fees from the CHS to weatherization programs like WAP will help stretch LIHEAP dollars and reduce fuel consumption while making homes more energy-efficient (CT). Additionally, the PUC should consider allowing 15% of federal LIHEAP funding to be spent on weatherization, as this would offer long-term relief to low-income households by reducing their energy demands (MC). Increasing state supplemental LIHEAP funds would also soften the impact that the compliance fees would have on heating costs for low-income homes (Ben). There should be a strategic focus on benchmarking homes that receive LIHEAP and determine the cost and how long it would take to weatherize those homes (SS). It would also be beneficial to have data on the houses with the highest consumption to prioritize WAP projects (MW).

Weatherization

Workforce/market transition

Fuel Assistance

Protect low-income customers

Increase flexibility for LIHEAP recipients

When a home can add a secondary heating system, such as an electric heat pump, state advocacy at the federal level should push for LIHEAP funding to cover both heat sources. Currently, households receiving assistance for fossil fuel heating systems may be discouraged from using electric heat pumps to avoid higher out-of-pocket costs, as LIHEAP benefits are generally lower for electric heat systems.

Expanding LIHEAP coverage to include two primary heating sources would help ensure that households can maximize energy[GW20] efficiency and reduce reliance on fossil fuels without facing additional financial hardship.

Also more support for cooling from LIHEAP/fuel and electric flexibility - details

State needs to work at the federal level - electric assistance at state level?

Consumer Navigation

A recommendation is to expand and sustain support for energy efficiency coaches who can guide Vermonters, particularly low-income residents, through the available programs and incentives. This work is currently being done at the Community Action Agencies with funding from Efficiency Vermont. This hands-on support is vital to guide low-income households through the complicated process of home weatherization and other projects.

Navigators could act as both financial coaches and energy experts, helping residents take full advantage of incentives such as those available through the Inflation Reduction Act.

The work of energy efficiency coaches also speaks to the importance of reducing overlap for programs that offer energy and efficiency assistance, which will reduce confusion and increase uptake.

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[1] U.S. Census Bureau: American Community Survey 5-year estimates, 2018-2022 (Table B25118, B25119) housingdata.org. The Census surveyed state area median income (AMI) is $74,014. This amount will be adjusted by household size for most programs.

[2] Vermont Housing Finance Agency, Maximum rent and purchase price affordability thresholds by income and household size, April 2024

[3] Vermont Housing Finance Agency, *2025 Vermont Housing Needs Assessment*. Prepared for the Vermont Department of Housing and Community Development, June 2024.

[4] U.S. Department of Energy, Low-income Energy Affordability (LEAD) tool, 2024

[5] Energy Action Network, Annual Progress Report for Vermont, 2023.

[6] U.S. Census Bureau: American Community Survey 1-year estimates, 2023 (Table S1701)

[7] Jeremiah Bohr and Anna C McCreery, “Do Energy Burdens Contribute to Economic Poverty in the United States? A Panel Analysis.” Social Forces, 2019.

[8] Jeremiah Bohr and Anna C McCreery, “Do Energy Burdens Contribute to Economic Poverty in the United States? A Panel Analysis.” Social Forces, 2019.

[9] Federal Reserve Bank of New York, The State of Low-Income America: Credit Access & Housing, January 2024.

[10] Richard Giddings, ESD Dept for Children and Families, Presentation to the EAG, 7/09/2024

[11] Richard Giddings, ESD Dept for Children and Families, Presentation to the EAG, 7/09/2024

[12] U.S. Department of Energy, Low-income Energy Affordability (LEAD) tool, 2024

[13] 3E Thermal, VT Weatherization Assistance Program Income Eligibility Guidelines

[14] Department of Housing and Community Development (DHCD), Vermont 2025-2029 Statewide Housing Needs Assessment, page 35, https://accd.vermont.gov/housing/plans-data-rules/needs-assessment

[15] Census Bureau: American Community Survey 5-year estimates, 2018-2022 (Table B25118, B25119) housingdata.org

[16] U.S. Census Bureau: American Community Survey 5-year estimates, 2018-2022 (Table B25118, B25119) housingdata.org

[17] Chris Winters and Geoff Wilcox, Vermont Agency of Human Services, Performance Indicators for the Vermont Weatherization Assistance Program, January 30, 2024

[18]

[19] American Community Survey 5-year estimates, 2018-2022 (Table B25036) housingdata.org

[20] Income-based U.S. household carbon footprints (1990–2019) offer new insights on emissions inequality and climate finance | PLOS Climate

[21] Vermont Housing Finance Agency, Maximum rent and purchase price affordability thresholds by income and household size, April 2024

[22] Vermont Legal Aid, 185% Federal Poverty Level (FPL), 2024

[23] Vermont Weatherization Assistance Program, Income Eligibility Guidelines, July 01, 2024 – June 30, 2025

[24] Vermont Energy Action Network, Annual Progress Report for Vermont 2023

[GW1]Propane is typically the most expensive fuel type to heat with in Vermont, after electric heat.

[GW2]Using the VT DPS Retail priced of heating fuels for Oct 24, propane is the most expensive fuel to heat with at 3,229 $ per 100M BTU, followed by Kero at $2,992 per 100M BTU, then oil at $2,429 per MBTU. Those numbers are figured at 100% efficiency, so well slight vary based on actual effiiency.

[GW3]Electric heat is the most expensive followed by propane, then Kero, then oil

[GW4]The National Weatherization Program typically uses upper case W, to differentiate from all other “weatherization”. I suggest that would help in this document

[GW5]Not true

Renters can apply for Wx and be served. And they can receive fuel asssitance. Having a landlord can cause obstacles in some instances (mostly if the landlord is not a good landlord).

[CS6]But how is this inequitable to LIHEAP recipients? Renters are eligible for weatherization if landlord agrees. But no one is turned away from LIHEAP for lack of weatherization...

[GW7]Agree to a point, however if liheap renter has a landlord that doesn't want to take care of any issues they could prohibit the tenants from receiving Wx. Its out of the renters control whether they can access Wx.

[GW8]This in not correct. We install heat pumps with some one time funds, but it does not remove the existing fuel source thus I'd argue not electrification. Definitely not our mission.

[GW9]This makes it sound worse than it is. We overcome these obstacles

The amount of people on the wait list is mostly a factor of how much outreach individual agencies do, not necessarily the need of Weatherization by Vermonters. Another metric would be better or suffice it to say we can only serve so many households year limited by the budget for the year.

[GW10]We aren't code compliance, but any safety issues will be fixed and any new work is done up to code.

[GW11]Totally true

[GW12]We don't require full code compliance. We require certain things like a safe and operational heating system, and any obvious obvious life safety issues addressed prior to receiving Wx.

[GW13]Not sure what this is saying. The money we have is sufficient to properly cost effectively Wx an individual building. We are limited or will be soon on Home Repair and vermiculite funds for owner occupied homes.

PARKING LOT

- Mia: 30% of homes can’t be retrofitted – would be a useful stat to find for our report. [CS22]

Mobile home specific discussion:

BB

- Given that WAP is already in the mobile home space, thinking outside the box in CHS context, thinking about braiding fed funds, CHS funds, existing funds to do full replacement
    - Something like 30% of annual clients are mobile homes and can get good results. If that work lasts 30 years is a open question, but do do good work to make them more comfortable and more energy efficient

In cases where weatherization is not feasible, Efficiency Vermont administers a program that can replace eligible mobile homes with Zero Energy Modular Homes (ZEMHs), though financing and supply is limited (MW).

There was a conversation in leg about exempting kerosene mobile homes, would need to be change in leg or decision by PUC to treat ZEMHs differently. (MC)

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[1] U.S. Census Bureau: American Community Survey 5-year estimates, 2018-2022 (Table B25118, B25119) housingdata.org

[2] Vermont's Legal Help Website, 185% Federal Poverty Level (FPL), 2024

[3] U.S. Census Bureau: American Community Survey 5-year estimates, 2018-2022 (Table B25118, B25119) housingdata.org

[4] Vermont Energy Action Network, Annual Progress Report for Vermont 2023, https://eanvt.org/annual-report/

[5] Jeremiah Bohr and Anna C McCreery, "Do Energy Burdens Contribute to Economic Poverty in the United States? A Panel Analysis." Social Forces, 2019.

[6] U.S. Department of Energy, Low-income Energy Affordability (LEAD) tool, 2024

[7] Richard Giddings, ESD Dept for Children and Families, Presentation to the EAG, 7/09/2024

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[9] U.S. Department of Energy, Low-income Energy Affordability (LEAD) tool, 2024

[10] 3E Thermal, VT Weatherization Assistance Program Income Eligibility Guidelines

[11] Department of Housing and Community Development (DHCD), Vermont 2025-2029 Statewide Housing Needs Assessment, page 35, https://accd.vermont.gov/housing/plans-data-rules/needs-assessment

[12] Census Bureau: American Community Survey 5-year estimates, 2018-2022 (Table B25118, B25119) housingdata.org

[13] U.S. Census Bureau: American Community Survey 5-year estimates, 2018-2022 (Table B25118, B25119) housingdata.org

[14] Chris Winters and Geoff Wilcox, Vermont Agency of Human Services, Performance Indicators for the Vermont Weatherization Assistance Program, January 30, 2024

[15]

[16] American Community Survey 5-year estimates, 2018-2022 (Table B25036) housingdata.org

[17] Income-based U.S. household carbon footprints (1990–2019) offer new insights on emissions inequality and climate finance | PLOS Climate

[18] Public Service Dept Briefing on Vermont's Home Energy Rebate Programs

[19] U.S. Census Bureau: American Community Survey 5-year estimates, 2018-2022 (Table B25032) housingdata.org

[20] Vermont Energy Action Network, Statewide GHG Emissions Dashboard, https://eanvt.org/emissions-dashboard/

[21] U.S. Census Bureau: American Community Survey 5-year estimates, 2018-2022 (Table B25032) housingdata.org

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[GW2]Using the VT DPS Retail priced of heating fuels for Oct 24, propane is the most expensive fuel to heat with at 3,229 $ per 100M BTU, followed by Kero at $2,992 per 100M BTU, then oil at $2,429 per MBTU. Those numbers are figured at 100% efficiency, so well slight vary based on actual effiiency.

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[GW9]We don't require full code compliance. We require certain things like a safe and operational heating system, and any obvious obvious life safety issues addressed prior to receiving Wx.

[GW10]Not sure what this is saying. The money we have is sufficient to properly cost effectively Wx an individual building. We are limited or will be soon on Home Repair and vermiculite funds for owner occupied homes.

[GW11]Doesn't accurately tell the issue with DOEfunds.

[CS12]But how is this inequitable to LIHEAP recipients? Renters are eligible for weatherization if landlord agrees. But no one is turned away from LIHEAP for lack of weatherization...

[GW13]Agree to a point, however if liheap renter has a landlord that doesn't want to take care of any issues they could prohibit the tenants from receiving Wx. Its out of the renters control whether they can access Wx.

[GW14]Totally agreed and a huge concern.

[GW15]Again I'd say "most" or "the majority"

[GW16]Fact check me and get other opinions from SME's.

[GW17]Propane very expensive to heat a home with, natural gas much less

[GW18]Not true

Renters can apply for Wx and be served. And they can receive fuel asssitance. Having a landlord can cause obstacles in some instances (mostly if the landlord is not a good landlord).

[GW19]I'd argue this will be as or more expensive for the client to pay their fuel bills. Propane is expensive to heat a home with, more than oil and usually more than kero.

[GW20]Or better yet, lets expand the GMP low income discount rate to all utilities and for all low income folk or at least those who use a heat pump

[GW21]OEO will be receiving both funding sources and is working with DPS on this.

[CS22]Couldn't locate this stat

Vermonters of Color, Indigenous Vermonters, and New Americans

Overview

This section discusses issues relevant under a Clean Heat Standard for Vermonters of Color, Indigenous Vermonters, as well as Vermont's New American, or immigrant and first-generation populations. This is an amorphous collection of Vermonters, who come from many different backgrounds, language groups, and socioeconomic circumstances. It is also a comparatively small, although growing, group of Vermont residents. Non-white Vermonters account for 9% of the state's population, and foreign-born residents make up 3% of the population[1].

However, it is essential that discussions on climate transition focus on these communities. Extensive national research[2] demonstrates that communities and individuals of color tend to face higher current health risks related to environmental hazards such as air and water pollution. They are likely to be more vulnerable to climate-related impacts due to historic disinvestment in minority neighborhoods. Americans of Color have also faced decades of lending discrimination, which has led to a significant racial wealth gap[3]. A lack of generational household wealth will make it more difficult for many Vermonters of Color to invest in fossil fuel-reducing home projects.

Challenges

Understanding the impacts of the Clean Heat Standard for Vermonters of Color will necessitate understanding the current challenges and intersecting demographic features of this group.

Vermonters of Color are more likely to have lower incomes than white Vermonters. The median household income for white Vermont households is $74,499, compared to $52,736 for Black households and $48,725[4]. 22% of Black and 21% of American Indian and Alaska Native Vermonters also experience poverty, twice the state's average rate[5]. Any issues that impact low-income and moderate-income Vermont households under the Clean Heat Standard – discussed later in this report – will be disproportionately felt by households of color.

Vermonters of Color are also more likely to rent than own their home. 72% of Black Vermont households rent their homes, compared to just 26% of white households[6]. Vermont's American Indian and Alaska Native, Asian, multiracial, and Hispanic populations also lag white households in

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[1] Vermont Housing Finance Agency, *2025 Vermont Housing Needs Assessment*. Prepared for the Vermont Department of Housing and Community Development, June 2024. The percentages of non-white and foreign-born Vermonters include overlapping groups.
[2] Berberian, Gonzalez, and Cushing, "Racial Disparities in Climate Change-Related Health Effects in the United States". Curr Environ Health Rep. September 2022.
[3] The Center for American Progress, *Systematic Inequality: How America's Structural Racism Helped Create the Black-White Wealth Gap*. February 21, 2018.
[4] U.S. Census Bureau, American Community Survey, 5-Year Estimates 2018-2022 (Table S1903).
[5] Public Assets Institute, *State of Working Vermont 2023*, February 2024.
[6] U.S. Census Bureau 2022 5-Year Estimates (Tables B25003A-G) via HousingData.org.

homeownership. Any issues that impact renters – also discussed in the report – will also heavily impact Vermont's non-white households.

Black, Hispanic Vermonters, and Native American Vermonters households also face general housing precarity, demonstrated by a higher incidence of homelessness among these groups. Black Vermonters comprised nearly 8% of the people experiencing homelessness in Vermont in 2023, despite representing 1.2% of the state population[7]. If costs related to housing rise significantly under the Clean Heat Standard, many members of these groups may face increased challenges to remain housed.

New Americans include foreign-born Vermonters and people whose family has moved to the United Sates from another country in the current or the previous generation. New Americans come from a variety of countries and regions, but slightly over half of Vermont's foreign-born population is non-White[8]. Overall, 45% of Vermont's Black population and 65% of Vermont's Asian population is foreign-born.

New Americans may face additional challenges under the Clean Heat Standard due to barriers of language and cultural exclusion. Cultural exclusion can limit opportunities to share experiences, ask questions, and access needed services. Vermonters with limited English proficiency (LEP) may not be able to receive information or education about certain topics because that information or education is not presented in a language that is accessible to them. It may also be particularly difficult for LEP Vermonters to work with Vermont's contractor workforce to make emissions-reducing home improvements.

Recommendations

It will be important to address the language and cultural exclusion barriers for LEP Vermonters. There are translation and interpretation services through both the USCRI and the Office of Racial Equity and Community Inclusion at Champlain Valley Office of Economic Opportunity. These services can be obtained as a fee for service arrangement. To address these barriers, it will be necessary to budget adequate funding to provide ample translation and interpretation services at all stages of the implementation of the Clean Heat Standard.

Recommendation

Make translation services and plain language descriptions readily available throughout public outreach processes during CHS implementation

Having welcoming and safe spaces for cultural inclusion will be important as well. There should be multiple avenues for Vermonters to share their experiences and concerns, several of which should be in affinity spaces that are comfortable and easily accessible for the participants. And for all Vermonters it is important to provide information in a plain language format with well-explained concepts and clear vocabulary.

The Default Delivery Agent (DDA) will be an important resource for serving many of the populations that are expected to be disproportionately impacted by increased costs related to the Clean Heat

[7] Vermont Housing Finance Agency, 2025 Vermont Housing Needs Assessment. Prepared for the Vermont Department of Housing and Community Development, June 2024.
[8] U.S. Census American Community Survey, 5-Year Estimates 2018-2022 (Table DP05).

Recommendation

Select Default Delivery Agents(s) with experience and capacity for reaching New American and LEP households.

Standard. In comments submitted on September 6, 2024[9], the EAG encouraged the Commission to ask that proposals for the DDA include a description of the entity's experience with, and plan for serving, disadvantaged groups, including households with Limited English Proficiency (LEP).

Any services offered by the DDA(s) to households under the Clean Heat Standard should be accompanied by targeted outreach to Vermont's New American communities, with translated resources available or translation services available at all stages of the program, from initial advertising to application.

To support these groups, the EAG also encouraged the Commission to require that DDA(s) have a DEI Plan or equivalent organizational framework. Such a plan should include clearly defined goals and actions that increase diversity, equity, and inclusion in all areas of the organization and its work.

[9] Equity Advisory Group, EAG DDA RFP Recommendations, September 6, 2024.