

Project #1: Climate Corps: Advancing Vermont's Climate Justice Jobs Blueprint

Community Partners: Johanna Miller, Energy and Climate Program Director, Vermont Natural Resources Council (VNRC); Lauren Hierl, Executive Director, Vermont Conservation Voters; and Bekah Kuster, VNRC AmeriCorps Member and Community Energy Coordinator

Introduction

The state of Vermont has a series of emissions reductions and renewable energy generation targets detailed in the state's Comprehensive Energy Plan.¹ After the successful passage of the Global Warming Solutions Act in Fall 2020, these goals are now legal requirements.

Meeting these climate pollution reduction targets will take an “all hands on deck” approach and is intimately intertwined with increased renewable energy generation and the reduction of energy usage through efficiency. As just one example of how sweeping the changes need to be, the Energy Action Network projects that meeting the 2030 target for the thermal energy sector alone will require 200,000 cold-climate heat pumps, 200,000 heat-pump hot water heaters and close to 150,000 homes weatherized.²

While these requirements are critical, many are questioning whether we have the workforce to actually complete the needed installations, weatherization projects, and retrofits demanded. Further, much-needed attention has been directed towards ensuring that the needed transitions are as just and equitable as possible. This is being looked at from two standpoints—the first being ensuring that Vermonters with the highest energy burdens³ (i.e., the percent of one's income spent on energy) receive priority for weatherization and the installation of fossil-fuel free heating systems. The second links back to the workforce / jobs question. Clean energy employers are already reporting hiring difficulties, especially outside of the Burlington area. Yet salaries for these jobs earn wages well above the state median hourly wage and represent an opportunity to develop training and apprenticeship programs for un- or under-employed Vermonters. Through deliberate planning, there is also an opportunity to actively recruit and train BIPOC, New American, lower-income, and other Vermonters from historically marginalized communities to be part of this workforce.⁴

A team of ENVS0401 students from the Spring 2021 semester worked with our partners to develop a blueprint for a Climate Justice Jobs Corps, seeking to ensure that Vermont can meet both its justice and equity goals as well as its emissions reductions requirements. They relied on insights from key stakeholders, considered the capacity of established organizations in Vermont and researched model programs from other states and those being proposed at the federal level to develop [their blueprint](#).

Another ENVS0401 student, Raquel Smith, went on to intern with the Energy Action Network this past summer and did a deeper dive into a workforce needs assessment, focusing on Vermont's thermal sector. Her final report can be access [here](#).

¹ https://publicservice.vermont.gov/publications-resources/publications/energy_plan

² <https://www.eanvt.org/tracking-progress/annual-progress-report/2021-annual-progress-report/>

³ <https://www.efficiencyvermont.com/news-blog/whitepapers/vermont-energy-burden>

⁴ <https://www.eanvt.org/tracking-progress/annual-progress-report/2021-annual-progress-report/>

Project Need

This team will build upon work completed to date to address additional research needs in the area of workforce development, thereby advancing this critical initiative. While the overall focus of your work will be statewide, there are a range of local Addison County partners who can help you understand the situation in a local context and who can inform your recommendations. Be sure to also keep the national context in mind as well and connect with Senator Sanders' staff team.

Additional research needs identified by your partners include:

1. How can local / statewide models in Vermont can serve as proof of concept for broader national initiatives (e.g., [S.2398 - Clean Energy Worker Just Transition Act](#))?
2. A specific focus on what the retraining of existing energy sector workers could/should look like, with a particular focus on fuel dealers.
 - Connect with Brian Gray of Energy Co-op of VT and Danielle Bombadier, unionized electrician and Secretary-Treasurer of AFL-CIO to help inform your work here (see [Danielle's recent editorial](#))
 - What state funding would be needed to overcome barriers here—e.g., funding for new equipment / equipment replacement?
 - What did and didn't work when fuel dealers offered their own incentives to fill workforce needs related to delivery drivers?
3. Identify / design state incentives to entice already trained workers to come to VT to work (might especially be needed if training programs are too lengthy to meet immediate needs).
4. What are the needed incentives to join / enter a Climate Justice Jobs workforce?
 - a. What are needs / desires of a range of constituents (e.g., women, people of color)
 - b. Focus groups re. the salary / benefits / soft skills training / childcare support / other needs that would encourage folks to enter training and employment programs
5. As part of GWSA requirements, where are the key leverage points within state agencies to support needed changes in service of an equitable and just energy transition (e.g. Department of Labor, Agency of Commerce & Community Development, legislators on related committees of jurisdiction)?
 - a. How can these partners also engage w/ students to identify key research needs and questions?

Additional research needs identified by Raquel include:

- Developing partnership outreach programs for companies that may not have established training-to-job pipelines;
- Incorporating justice-based training programs targeted for non-traditional labor pools;
- Developing mission and service-based volunteer programs or Corps programs;
- Incorporating do-it-yourself models into energy efficiency;
- Preparing for the possibility of a 'traveling tradespeople' program; and
- Thinking creatively about ways to combine workforce, energy efficiency, and affordable housing.

Project #2: Energy Democracy: Ensuring that Public Opinion and Consumer Preferences Guide Climate Policy and Vermont's Energy Transition

Community Partners: Cara Robechek, Network Manager, Energy Action Network and Bill Regan, Energy Action Network Senior Fellow

Introduction

Vermont has a vast amount of emissions, energy, economic data that inform the work of the Energy Action Network (EAN) and guides the development of effective strategies to meet Vermont's emissions reduction requirements and renewable energy goals. EAN's Annual Progress Report for Vermont is a key example of how these data are used to tell us where our GHG emissions come from, what our energy status quo costs us, and what practices and technologies we have at hand to reach our goals.⁵

However, we have very little data regarding Vermonters' consumer and policy preferences. Your partners note that the few surveys that have been conducted have a mix of challenges:

- Lack of focus, depth, and comprehensiveness: When general public opinion polls are conducted in Vermont, they frequently fail to include climate and energy questions or, when they do, often only include one or a small number of questions.
- Infrequent and inconsistent: The collection of public opinion data on climate and energy issues in Vermont has been infrequent, conducted on irregular timeframes, and often fails to include the kind of consistent question framing that would enable longitudinal (over time) analysis or comparison with national trends.
- Polling by advocacy groups: While Renewable Energy Vermont (REV) and the VT Public Interest Research Group (VPIRG), among others, have conducted interesting climate and energy polls,⁶ these organizations are known advocates with a particular point of view and lobbying agenda, which can raise concerns about objectivity of question framing and independence of the results.
- Sample sizes insufficient to enable confident demographic disaggregation and analysis: While many Vermont polls allow for reporting of results at the statewide level, it would be preferable to have large enough sample sizes to have statistically significant/ low margin of error results disaggregated by region, income, and race.

Given the widespread public engagement and the mix of policy and individual actions needed to meet Vermont's Global Warming Solutions Act (GWSA)⁷ requirements, there is a need for strategies to be informed by comprehensive, frequent, and high-quality public opinion data. Ideally, we would have baseline and then then longitudinal data to ensure that Vermont policies and programs are well-designed, communicated, and evaluated.

An additional aspect that all parties working toward achieving GWSA goals are struggling with is how to best bring the voices, needs, opinions and preferences of Vermonters facing structural barriers (e.g., low- and moderate income (LMI) Vermonters, BIPOC Vermonters) to the fore.

⁵ <https://www.eanvt.org/tracking-progress/annual-progress-report/2021-annual-progress-report/>

⁶ <https://suncommon.com/vermonters-want-more-solar-in-their-towns/> and <https://www.vpirg.org/news/poll-vermonters-worried-about-global-warming-want-to-see-action/>

⁷ <https://legislature.vermont.gov/Documents/2020/Docs/ACTS/ACT153/ACT153%20As%20Enacted.pdf>

Project Need

This project team will work to identify what data are needed to inform the development of effective strategies for market and policy change, with a particular focus on LMI and BIPOC Vermonters. Specifically, what data are not just “interesting” but would be actionable for the statewide Climate Action Plan and the various efforts aimed at consumer engagement across EAN’s network and the state of Vermont.

Specific goals include:

- 1) Develop Strategy for (and perhaps pilot implementation of) consumer preference polling of all Vermonters, including large enough sample sizes to be able to have statistically significant results for LMI and BIPOC Vermonters’ opinions on climate change and clean energy technology purchasing.
 - a. What exists / what surveying has already been done?⁸ Be in dialog with your partners about developing strategic boundaries for this research question to make it both management and meaningful—e.g. baseline dates, desire for a current snapshot vs. how to inform their focus over time.
 - b. Identify gaps that are necessary to fill in order to design actionable, effective strategies to advance clean energy policies and consumer engagement to meet the GWSA requirements. Think about gaps in two ways—both data gaps where key questions are consistently missing from all surveys and “frequency gaps” where data exist but aren’t gathered frequently enough to be useful.
- 2) In addition to gaps in data gathering, your gap analysis should also extend to communications. Use focus group conversations that might be part of designing the above polling strategy (as well as possible preliminary polling results) to develop a series of case studies on that meet identified communications gaps:
 - a. How are all Vermonters with structural barriers making energy choices?
 - i. Goal of using stories of success to foster peer to peer connections / peer to peer stories of “why this works for me”.
 - ii. Who has a story to tell that can address how making a clean energy choice has made positive difference?
 - b. What incentive programs for making clean energy choices / needed transitions aren’t reaching LMI or BIPOC Vermonters? What is hindering accessing and utilizing these incentive programs?
 - i. Goal of addressing what isn’t working / isn’t making sense for Vermonters facing structural barrier and communicating what IS available in a way that reaches these Vermonters.

⁸ This could include national, state, and/or utility data on public opinion and consumer preferences. Examples include National: Yale Center on Climate Communication, ecoAmerica, Pew, Union of Concerned Scientists/ Consumer Reports, and Guidehouse Insights. State: UVM, VPR, REV, VPIRG; Utility: Green Mountain Power, Efficiency Vermont, Vermont Electric Co-op.

Project #3: Just Sustainabilities: Innovating Vermont's Farm Worker Housing Initiative

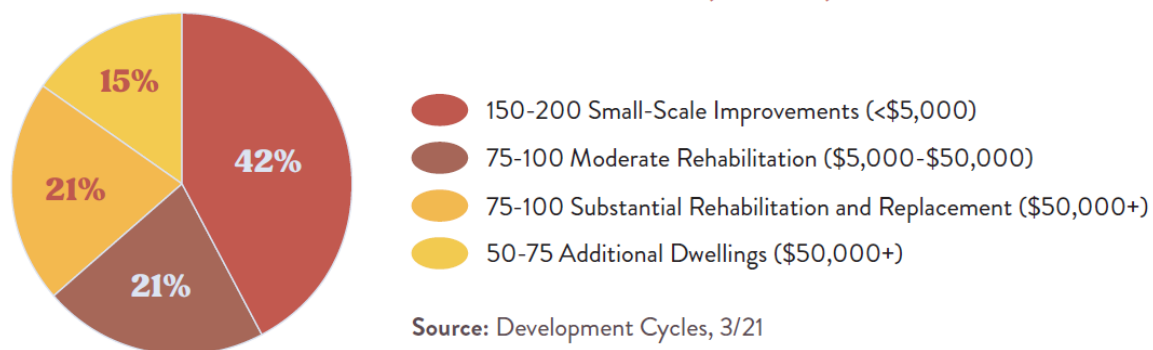
Community Partners: Peter Schneider '97, Senior Energy Consultant, Vermont Energy Investment Corporation and Lise Anderson, Addison Allies

Introduction

Led by Middlebury alumnus Peter Schneider '97 and launched in response to the devastation many mobile home parks faced in the wake of 2011 Tropical Storm Irene flooding, Vermont's Mobile Home Replacement program replaces old trailers with new zero-net energy modular homes, reducing energy burden for low-income households, improving comfort and environmental health while also reducing the use of fossil fuels.⁹ The program is expanding in response to two pressing needs—using COVID recovery and stimulus funding to meet pandemic related housing needs and improving often dire housing conditions for Vermont's migrant farm workers. It is the latter program—dubbed the Farm Worker Housing Initiative—with which this project team will engage.

10% of the agricultural workforce in Vermont is made up of immigrants with 1,500 migrant workers sustaining the state's iconic working landscape. These workers are the backbone of Vermont's agricultural economy, but they have been historically mistreated.¹⁰ 40% of workers receive less than the Vermont minimum wage, often never have a day off, and work and live under incredibly challenging conditions.¹¹ A 2021 Farmworker Housing Needs Assessment commissioned by the Vermont Housing and Conservation Board states that, "A wide range of farmworker housing conditions exist in the state, ranging from excellent to unacceptable by nearly anyone's standards."¹² The below chart from the assessment details the scale of need related to repair, replacement, and additional needed housing.

FIGURE EX-1: SCALE OF FARMWORKER HOUSING NEEDS, BY TYPE, 2021 ESTIMATE



⁹ <https://www.vtenergydashboard.org/stories/efficiency-vermont-zero-energy-modular-initiative>

¹⁰ <https://migrantjustice.net/milk-with-dignity-campaign>

¹¹ <https://www.americanimmigrationcouncil.org/research/immigrants-in-vermont;>
<https://migrantjustice.net/about>

¹² <https://vhcb.org/sites/default/files/pdfs/pubs/Vermont-Farmworker-Housing-Needs-Assessment-Study-4-2021.pdf>

Project Need

To date, the Farm Worker Housing Initiative has successfully partnered with Migrant Justice and other partners to begin replacing worker housing on farms that supply milk to Ben and Jerry's—the first corporation to participate in Migrant Justice's Milk with Dignity campaign, a “movement of farmworkers and allies calling on dairy companies to ensure respect for human rights in their supply chains.”¹³

An opportunity to expand the Farm Worker Housing program to meet the urgent needs detailed in the above chart comes in the form of funding that the Vermont Housing and Conservation Board (VHCB) recently received from the latest federal American Rescue Plan Act. The Vermont governor and legislature during the 2021 legislative session gave VHCB \$14.8 million in base funding and \$154 million in supplemental funding from the federal American Rescue Plan Act State Fiscal Recovery Fund (ARPA-SFR). VHCB will receive an additional \$9.8 million in ARPA funding from HUD through the federal HOME Program geared towards housing those experiencing homelessness through the pandemic.¹⁴

Of this approximately \$180 million dollars in funding, VHCB plans to allocate \$1.2 million for farmworker housing repair and new construction. VHCB is soliciting applications for these funds to garner the needed vision, leadership, and program guidance to best address the urgent farmworker housing needs. Applications are due by **November 10th** and will be considered by the VHCB Board in January of 2022.

As your community partners and their allies work towards this application deadline, they are eager for you to take a deeper dive into several aspects of the farmworker housing issue to help them secure the needed funding. Areas of needed work include:

- 1) *Designing a model grant / loan process for farmers seeking to improve or build new workforce housing based off a NY State model AND incorporating environmental and justice standards*

Current USDA farmworker housing loan program processes have proved extremely cumbersome and often have prohibited progress. Application processes can take well over a year and aren't a viable option relative to the urgency of the housing needs. USDA loans are typically for 33 years with 1% financing, while New York's model loan program offers 0% financing on \$200,000 over 10 years.

Your task will be to research and improve upon NY's funding model for the VT context, combining the ambitions of environmental *and* justice standards into the design of a funding program. Detailed research questions will be shared in a companion document with this team, but your partners are particularly interested in how / if net-zero energy standards and the minimum Milk with Dignity standards can be pre-requisites for being eligible for 0% loan financing. This will require you to estimate the needed funding and staffing needs for the enforcement / oversight of these standards.

¹³ <https://migrantjustice.net/about-the-milk-with-dignity-program>

¹⁴ <https://vhcb.org/our-programs/housing/arpa-sfr>

2) Design a protocol for needed standards of housing to be utilized when farmers apply for a housing loan

Your partners have identified the need for developing a unified approach to assessing how funds and financing rates should best and most consistently be allocated to farmers seeking loans to improve on-farm housing. This team will work to develop a “check-list” or protocol for when housing repair is feasible vs. when replacement is needed. What should the minimum space requirements (both private and common) and number of planned bathrooms relative to number of residents be set at to qualify for a loan? Should a farmer proposing to buy a “better” used mobile home to replace an older used mobile home be able to qualify for a loan? These are just some of the example questions you should consider.

3) Potential work related to gathering updated data relative to April 2021 Farmworker Housing Needs Assessment

The VHCB grant application would be all the stronger with the most up to date data to emphasize the urgency of the on-farm housing situation and inform how your partners should think about funding needs well into the future. Work with your partners and study author to identify possible needs re. refining / updating the data. This data gathering would likely entail interviews / conversations with farmers – this would be an excellent opportunity to get their feedback related to optimal loan and financing processes relative to research need #1.

4) General outreach related to program development

Through the course of your above research, you will likely interact with a range of stakeholders i.e., famers, workers, Migrant Justice, lenders, USDA, Farm Bureau, etc. Your partners would welcome your insights related to bringing parties together and facilitating work towards shared goals. There may also be space for some marketing / communication work with farmers. How might stories of successful housing replacements or retrofits on farms be used for peer to peer story sharing to build motivation and trust for this program among farmers?