



## **Project #1: The Connector Project: Linking Home Weatherization & Key Services through the One Touch Referral Program**

*Community Partners: **Geoff Wilcox**, Weatherization Program Director and **Rob Leuchs**, Senior Energy Services Program Officer, State of Vermont Office of Economic Opportunity*

*Resource Contact: Energy Action Network's Climate Workforce Coalition*

### **Introduction and Context**

One Touch is a program that aims to connect a suite of housing, health, energy efficiency and weatherization services. Clients that connect with service providers in any of these categories can complete a survey indicating other areas of needed assistance and are referred to the appropriate agency or organization. This bundling of home and health services has been demonstrated to improve both health and energy outcomes. One Touch currently operates in 6 cities (including Burlington Vermont) and Vermont is one of three states that have implemented this program statewide. The Vermont Office of Economic Opportunity's Weatherization Program uses One Touch in all single-family weatherization projects and manages the program. To date, over 5000 homes in Vermont have utilized the program with just over 40% being referred to another program.<sup>1</sup>

### **Project Need**

Your community partners began using the One Touch program about 10 years ago and are eager to revise and update the program and process so that it is even more effective and functional for low-income Vermonters who rent or own their home. Further, there are important links that can be made to the pressing climate workforce challenges that Vermont faces. This team's area of work will include:

### **Updating Content**

- The current One Touch referral guide contains partners across the health, energy, housing, food security, and senior services sectors and was last updated in May of 2023. Your partners would like you to both confirm and make needed updates to the partners currently listed in the referral guide AND broaden the scope of included partners to make it even more comprehensive.

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<sup>1</sup> <https://onetouchhousing.com/overview/> and <https://onetouchhousing.com/locations/vermont/>

- Your community partners would also like you to review the survey questions for needed updates, especially if you are able to add additional partners to the referral list.

### Improving Process

- The process is currently designed as a Survey Monkey survey that energy efficiency coaches can walk a client through when they do home visits. Needs in terms of process improvements include:
  - Working with service providers in the service sectors *outside* of home weatherization and energy efficiency so that they also implement the survey with their clients
  - Developing a mechanism for tracking the outcomes of any referrals that were made – i.e. what actions were taken after a referral?
  - Recommending alternative platforms – is Survey Monkey the best tool to be using or would another platform or app that this team could develop be more effective?

### Making Workforce Linkages

- Through Vermont’s Climate Workforce Coalition’s<sup>2</sup> research to date, it has been demonstrated that the more you can reduce external pressures the more success there is with workforce retention. There are already examples in the state of businesses that have “community workforce managers” that seek to provide assistance to their employees across the service sectors that the One Touch program includes. There is interest therefore in linking these two approaches more explicitly. For starters, your community partners would like this team to:
  - Ask the workforce coalition and existing community workforce managers to review the One Touch survey to suggest changes / improvements
  - Consider adding a workforce related question to the One Touch survey – i.e. do you need help finding employment or training?

### Desired Deliverables

- Updated and expanded referral list
- Updated survey – both questions and potentially the platform
- Mechanism for tracking results of referrals
- Recommendations for ensuring that service providers across all sectors utilize One Touch Survey
- Your reflections from any lessons learned from your interactions with VT service providers, the Workforce Coalition, models and best practices that you researched outside of VT, and any relevant factors related to the changing federal landscape.

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<sup>2</sup> <https://eanvt.org/network-action-teams/climate-workforce/>



## **Project #2: Permanently Affordable Housing in Vermont: Adapting to a changing federal policy landscape**

*Community partner: Elise Shanbacker, Executive Director of Addison Housing Works*

### **Introduction and Context**

The mission of [Addison Housing Works](#) (AHW) is, “to enrich the lives of low- and moderate-income people of Addison County by ensuring the development, management and maintenance of safe, quality, affordable homes and related supports for families, seniors and individuals.” Through the development, ownership, and management of affordable housing in Addison County, AHW’s combined offerings of rental apartments, mobile home parks, single-family homes, and senior housing totals 750 housing units. Their commitment to environmental, economic, and health equity is demonstrated through several unique and important aspects of their work including shared equity models of home ownership, resident services embedded at properties to support elderly residents and families, and commitments to weatherization, health equity (including mental health), and safety improvements.

State and federal housing policy is undergoing seismic changes at a time when the housing need in Vermont is paramount. As per the [2024 VT Housing Needs Assessment](#), there is a statewide shortage of affordable homes, half of all Vermont renters are cost-burdened (with 25% or renters paying more than 50% of their income on rent), and 36,000 new units of housing are needed. Further, the July 2025 [State of Homelessness in Vermont Report](#) states that Vermont, “is in the midst of an escalating homelessness crisis - one that shows no signs of slowing” with current counts of almost 3500 unhoused Vermonters.

There are policies at play in Vermont that will have some positive impacts on the statewide housing situation which include [S.100/Act 47](#) – “An act relating to housing opportunities made for everyone” (May 2023), [H.687/Act 181](#) – “An act relating to community resilience and biodiversity protection through land use” (May 2024), and [S.127/Act 69](#) – “An act relating to housing and housing development” (May 2025).<sup>3</sup> Meanwhile, Governor Scott vetoed H.91 which aimed to create the “Vermont Homeless Emergency Assistance and Responsive Transition to Housing (VHEARTH) Program” and the governor also ended an executive order that had provided hotel/motel stays to some of the most vulnerable Vermonters.

Current federal policy changes that will likely have negative consequences include July 2025’s [Executive Order 14321](#) which marks a decided shift away from a “Housing First” approach to addressing homelessness and a proposed Federal 2026 Budget that, according to the National

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<sup>3</sup> See Act 69 details at <https://ruthforvermont.com/2025-legislative-session/housing-and-homelessness/>

Low Income Housing Coalition, “proposes a historic 44% cut to Housing and Urban Development’s (HUD) vital affordable housing, homelessness, and community development programs”.<sup>4</sup>

### Project Need

The proposed reduction to HUD’s affordable housing programs like [HOME](#) and [CDBG](#) would fundamentally remake AHW’s housing development model. Currently, affordable housing is funded primarily by the Low-Income Housing Tax Credit (LIHTC) program, which is formula-based funding that can cover up to about 60% of the cost of building a new affordable apartment complex. Programs like HOME and CDBG make up the other 40%, with a commercial mortgage playing a very small role. While the 2025 Reconciliation Bill (OBBA) increased LIHTC funding by 12% beginning in 2026, the proposed cuts to HOME and CDBG may mean that affordable developers like AHW actually experience a decrease in our ability to access LIHTC funding to build more housing.

Operating in this new environment will require creatively rethinking our approach to housing development. How can AHW leverage new housing policies and programs like the increase to LIHTC and [Vermont’s new CHIP infrastructure program](#) to adapt to the potential loss of traditional sources like HOME and CDBG? AHW would like this team of students to do some proactive and visionary thinking—with the help of experts—to come up with models to survive and even potentially thrive under these conditions. In general, they would like to know what experts view as major concerns, what are bright spots in terms of solutions, what other policies might be coming into play, and what are other recent state and local developments that AHW should be aware of to adapt to this new policy environment with the lens of affordable housing.

Further, AHW would like this team to focus on the notion of **permanent affordability**. This is important to hold in mind as many of the pro-housing development state-level policies could favor private for-profit housing development over non-profit affordable housing development.

The work of this team will include:

- Familiarizing yourself with the state and federal policy landscape vis-à-vis housing. Your professors and community partner will provide resources to jump-start you in this work. What are the anticipated effects that AHW needs to be prepared for?
- Develop and implement interview and survey instruments to learn from experts about 1) possibilities for alternative funding streams and strategies, 3) barriers and opportunities for raising new state-level funding, 4) how other states use LIHTC funds, 5) other potential sources of leverage that don’t rely on HUD money, etc.

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<sup>4</sup> <https://nlihc.org/resource/trump-administration-releases-additional-details-fy26-budget-request-slashing-hud-rental>

- Potential interviewees include legislators, State Treasurer's Office<sup>5</sup>, AHW board members, the Housing and Homelessness Alliance of Vermont, Vermont Housing Finance Agency (Maura Collins, ED) and its national counterparts, Vermont Agency of Health and Human Services, and other regional housing trusts.
- Share hopeful case studies of highly agile institutions that survived under "VUCA" conditions (volatility, uncertainty, complexity, and ambiguity)<sup>6</sup> – what were their strategies for success? Even if not directly in the housing space, what lessons might AHW learn from these examples?

### Project Deliverables

- Snapshot of policy landscape related to affordable housing
- Report of findings from interview, survey, and case study research
- Your recommendations for next steps
- Potential for op-ed piece to raise public awareness around these issues if time allows. Are the potential solutions you learned from your work that you want to build public support around?

### Starting Resources

<https://www.addisonhousingworks.org/blog/evidence-mounts-on-the-impact-of-state-and-federal-policy-shifts>

<https://www.addisonhousingworks.org/blog/response-on-homelessness-mental-health-and-substance-use>

<https://ruthforvermont.com/2025-legislative-session/housing-and-homelessness/>

[What the Federal Reconciliation Bill Means for Vermonters](#) (49-min VNRC video from 8/6)

<https://vtdigger.org/housing/>

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<sup>5</sup> <https://www.addisonindependent.com/2025/06/26/pieciak-unveils-20m-housing-program/>

<sup>6</sup> <https://en.wikipedia.org/wiki/VUCA>



## **Project #3: Community Geo: Market Analysis for Scaling Community Geothermal in New Construction**

*Community Partner: Morgan Hood, Manager of Innovative Products and Services, VGS*

### **Introduction and Context**

[VGS](#) is an integrated energy services company, providing their customers with “safe, affordable, and reliable thermal energy service, award-winning energy efficiency programs, equipment service and maintenance, and a growing portfolio of decarbonized heating and cooling options.” They service 56,000 families and businesses in Franklin, Chittenden, and Addison Counties and are a strong partner in Vermont’s clean energy future.

### **Project Need**

This project aims to explore the potential for community-scale geothermal heating and cooling systems in new residential and mixed-use developments, both within and outside the VGS service territory. The goal is to evaluate the opportunity for geothermal as a decarbonized thermal energy solution, identify where it can be most impactful and feasible, and provide insights that inform strategic planning and program development at a policy and regulatory level.

## **Objectives**

### **1. Market Landscape Mapping**

- Identify planned and proposed new construction developments in Vermont and surrounding regions, with a focus on:
  - Location (inside vs. outside the VGS footprint)
  - Project size, type (residential, mixed-use), and timeline
  - Development stakeholders (municipalities, developers, architects, planners)
  - Anticipated thermal energy source/s (heat pumps, fuel oil, propane, etc)

### **2. Geothermal Opportunity Assessment**

- Assess local electric grid capacity and constraints that may affect heat pump electrification strategies.

- Compare community-scale geothermal with individual air source heat pumps in terms of:
  - Grid impact
  - Installation and operational cost
  - Performance and resilience
  - Emissions reduction potential

### **3. Carbon and Energy Impact Modeling**

- Estimate the carbon emissions avoided by selecting geothermal over natural gas/fuel oil/propane/efficient electric alternatives in these developments.
- (potentially) Analyze potential energy savings and thermal load balancing opportunities (e.g., through waste heat recovery or integration with nearby non-residential buildings).

### **4. Strategic Insights and Recommendations**

- Identify high-opportunity sites for geothermal based on a combination of development readiness, grid limitations, policy alignment, and environmental benefit.
- Recommend areas for further feasibility study or pilot project development.

### **Deliverables**

- A GIS-based map of relevant new construction projects overlaid with utility grid data and geothermal suitability indicators
- Summary of high-priority development opportunities for further VGS engagement
- A final report and presentation of findings



## **Project #4: Density Dividends: Linking Smart Housing to Climate Gains**

*Community Partner, [Kevin Chu](#), Executive Director of the [Vermont Futures Project](#)*

### **Introduction and Context**

The Vermont Futures Project is “an independent non-partisan organization with a goal of providing a vision that supports and encourages long-term economic growth for Vermont, providing data and recommendations to achieve this goal. The Vermont Futures Project will position the economy in the center of a statewide discussion about Vermont’s future, enriching that discussion with data, benchmarks, and research – demonstrating how a healthy economy provides opportunities for people and contributes to Vermont’s unique quality of life.” In January 2025, they launched an [Economic Action Plan](#) with aspirational targets for growth and recommendations for how to make progress.

One key area of focus for the Vermont Futures Project is increasing housing in line with the goals established in the [2024 Vermont Housing Need Assessment](#). As part of their community engagement work, your partner is interested in this team demonstrating the downstream GHG benefits of housing density, helping shift the public discourse away from an economy vs. environment dichotomy. There is a continued need for thinking that brings these things together in complementary ways.

### **Why It Matters**

Vermont faces a shrinking working-age population and a critical housing shortage which are driving up costs and threatening the long-term economic health of the state. At the same time, Vermont has ambitious climate goals that require significant reductions in emissions. Without intentional alignment, progress in economic goals could create a setback for environmental goals or vice versa.

### **Related Current Events**

- [H.479 Housing Bill](#)
- [H.479 Opinion: H.479 is an important step toward addressing the housing crisis in Vermont](#)
- [Housing targets illuminate path to balancing Vermont’s housing supply](#)
- [Towards an abundance agenda for Vermont](#) (Chair of Shelburne Selectboard)



## Project Need

**Transportation/Commuting Assessment** - Intersect multiple data sets and use spatial analysis to investigate the potential downstream environmental benefits of increasing housing availability using smart growth principles.

### Resources:

- [VHFA Housing Data \(ArcGIS interface\)](#)
- [VT Department of Labor Economic Profile Series \(County Data\)](#)
  - Inflow/Outflow data shows the balance of where people live vs. where they work.
  - Town-level data available here: <https://onthemap.ces.census.gov/>
- [Jobs-to-Homes Ratio](#)
- [Census Data on Transportation to Work by Selected Characteristics](#)
  - Age, sex, race/ethnicity, income, and occupation/industry data available if time allows for demographic analysis through an equity lens.

## **Assessing Where and How to Build New Homes**

- After consulting with EAN, perhaps also investigate thermal ratings (or other proxy data) related to average age of houses, provide data related to GHG emissions of new construction (thermal and electric usage assuming optimal weatherization and heat pumps)
  - Thermal ratings of single family homes vs. denser construction
    - [https://www.epa.gov/sites/default/files/2014-03/documents/location\\_efficiency\\_btu.pdf](https://www.epa.gov/sites/default/files/2014-03/documents/location_efficiency_btu.pdf)
  - Consider also per-capita emissions to capture density benefits. Median household size has been decreasing while home sizes have been increasing.
- Additional spatial analyses need to be taken into account:
  - The Zoning Atlas being developed by UVM (i.e. where is housing allowed under new [HOME Act 181 rules](#) - Act 250 amendments)
  - Current available infrastructure (i.e. roads, sewer, water lines) though these financial constraints somewhat eased under H.479

## Deliverables

- Policy brief format written product that shares recommendations based on above analyses for where smart and dense growth should be prioritized (with possible focused town case studies) and how it advances economic and environmental goals. For inspiration about policy-changing work by other Middlebury students, see [here](#).