

Project Statements

ENVS 0401 Community-Engaged Practicum
Fall 2018 Seminar Theme: *Theories of Change*

#1: Project Statement for Collaboration with Efficiency Vermont and Burlington Electric Department

Introduction

In 1999, Vermont's Public Utility Commission approved the creation of the country's very first energy efficiency utilities (EEUs): a statewide entity in Efficiency Vermont (EVT) and a separate EEU for the city of Burlington within Burlington Electric Department (BED). Vermont's EEUs remain leaders today in providing technical assistance, rebates & other financial incentives, as well as products and services through partner entities to help Vermont households and businesses reduce their energy costs through efficiency.¹ In addition to saving Vermonters energy and money, a core part of the EEUs' mission is to help the state meet the goals set forth in Vermont's 2016 Comprehensive Energy Plan.

As detailed in the 2016 Comprehensive Energy Plan (CEP), these goals include obtaining 90% of the state's total energy needs from renewable sources by 2050, and a statutory goal of 25% renewable energy by 2025. Part of achieving this will also include reducing overall energy consumption, with benchmarks for 15% reductions by 2025 and more than 33% reductions by 2050.²

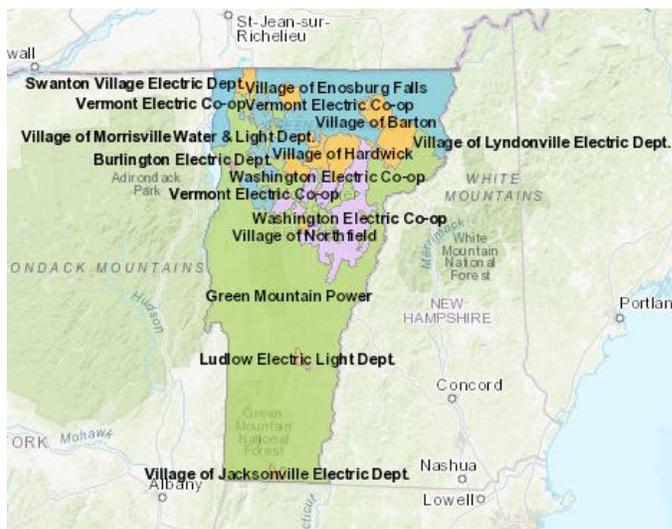
Partnering with Efficiency Vermont and Burlington Electric Department will give this group an opportunity to think about theories of change—here centered around achieving the state's CEP goals— within the regulated sphere. Vermont's three EEUs (the third being housed within Vermont Gas) operate as regulated energy entities alongside 17 other distribution utilities (see map right).

This regulatory structure includes the Public Utility Commission (PUC) and the Vermont Public Service Department (the Department). The PUC is "a three-member, quasi-judicial commission that supervises the rates, quality of service, and overall financial management of Vermont's utilities."³ The PUC's jurisdiction in the electricity sector is detailed at:

<http://puc.vermont.gov/about-us/our-jurisdiction> and

includes things such as energy efficiency programs and long-term resource planning. The Department lies within the executive branch of the Vermont government and has the mission of, "serving all citizens of Vermont through public advocacy, planning, programs, and other actions that meet the public's need for least cost, environmentally sound, efficient, reliable, secure, sustainable, and safe energy, telecommunications, and regulated utility systems in the state for the short and long term."⁴ The Department's jurisdiction regarding 1) the energy efficiency sector is described at: http://publicservice.vermont.gov/energy_efficiency and for 2) energy utilities at:

<http://publicservice.vermont.gov/electric>.



¹ <https://www.encyvermont.com/about>

² https://outside.vermont.gov/sov/webservices/Shared%20Documents/2016CEP_Final.pdf

³ <http://puc.vermont.gov/>

⁴ http://publicservice.vermont.gov/about_us

Project Description

There are inherent challenges to addressing urgent societal problems in a regulated and bureaucratic space. With day-to-day tasks of governance and administration and a tendency towards risk aversion, there is often a lack of capacity for facilitating new research directions as new paradigms emerge and a lack of nimbleness to respond to the rapidly changing and evolving electricity sector. Worries over cost burdens and accountability to rate payers can also hinder innovation. Facing the needs of grid modernization, the democratization of energy, and achieving the goals of Vermont's Comprehensive Energy Plan, Vermont's regulated energy entities are increasingly grappling with the question of what their services need to look like in order to usher in a new energy future. Our partners, including JJ Vandette, Strategic Initiatives Manager for EVT, will be deeply engaged with these questions as they prepare for their Demand Resource Planning Proceeding (DRPP) for the 2020-2022 performance period, a process that will begin early next year. Additionally, Freddie Hall and Casey Lamont, Resource Planners at BED, will provide important context as they engage in pilot programs to test non-traditional energy resource planning activities, such as behavioral demand response programs.

While the state of Vermont has articulated a progressive clean energy agenda, as described in the state's Comprehensive Energy Plan, few roadmaps exist to guide regulated entities to the end result that will make customers better off. In advance of the upcoming DRPP and amidst evaluating BED's innovative approaches to resource planning, EVT and BED will be considering how best to continue to shape their customer-facing energy services—and the economic and environmental non-energy benefits they creates—amidst this increasingly complex and changing energy landscape. The areas of work for this project team can help inform this new proposal through 1) an analysis of Vermont's energy regulatory ecosystem as well as 2) a comparative analysis of how this ecosystem functions in other states (e.g. MA, NY, RI, and CA) or countries and how these models can help inform Vermont. Dozens of states are engaged in interesting conversations around grid modernization. How and why is that? How can we nudge VT from a wait and see approach to being more proactive? This analysis will be framed around the commonly held end-goal of achieving the CEP goals and the roles that the range of actors are playing or need to be playing to meet these goals. The component of this work investigating the 'business as usual' scenario in Vermont will demand careful framing, e.g. you will not be 'investigating' regulators and other stakeholders, rather engaging them in reflective dialogs around why things operate the way they do and how they might envision that changing. This and other approaches will be collectively developed with your partner.

Desired Outcomes

- Insight generation that will not only feed into preparations for EVTs 2020-2022 performance period, but could also catalyze next steps in achieving the state's comprehensive energy goals.

#2: Project Statement for Collaboration with the Vermont Natural Resources Council

Introduction

The Vermont Natural Resources Council (VNRC) is a 501.c3 organization with the mission of not only protecting and enhancing Vermont's natural environments, vibrant communities, productive working landscapes, rural character and unique sense of place, but also of preparing Vermont for future challenges and opportunities. The VNRC does this through the powerful combination of research, education, collaboration, and advocacy.⁵ The VNRC has four programming areas and this project will be engaging with their Energy and Climate Action Program. The Energy and Climate Action Program collaborates with and/or leads a diverse array of "solutions-oriented" initiatives all geared towards ensuring not only that Vermont meets its energy and climate goals, but also that the needed energy transition is as just and economically beneficial as possible. These initiatives include:

- supporting and facilitating the work of Vermont's Town Energy Committees by coordinating the Vermont Energy and Climate Action Network;
- serving as a leading member of Energy Independent Vermont, a coalition working towards putting a price on carbon in Vermont;
- supporting comprehensive and progressive energy planning through research and policy work on renewables, transportation, efficiency and conservation; and
- strong education and advocacy work through, among many other things, their important weekly legislative dispatch and #ActOnClimateVT hashtag on social media.^{6,7}

As is the case with all of our other partners, VNRC's Energy and Climate Action Program is doing all of the above work in support of the Vermont's energy and climate goals as detailed in the 2016 Comprehensive Energy Plan inclusive of 90% renewable energy and a 75% reduction in our greenhouse gas emissions by 2050.⁸ Working with VNRC will allow this group to gain exposure to theories of change in both the policy and advocacy spheres. The Energy and Climate Action Program strives to enact change by 1) educating the public around how policies can either support or hinder environmental stewardship, 2) building public support for sound environmental policies, and, perhaps most importantly, 3) ensuring accountability once a policy is enacted.

Project Description

Through our conversations with your partner, Johanna Miller, VNRC's Energy and Climate Action Program Director, we discussed projects that would directly investigate her organization's theory of change vs. investigating how change might occur in pivotal sectors of the economy that need to engage more deeply with Vermont's energy transformation (i.e. enacting substantial change vs. incremental). We landed on the latter as a space where this team could lend some interesting insights that would support VNRC's work. These overall economic sectors include agriculture, the built environment, transportation, and electrification.

A business sector that crosscuts almost all of these above economic categories is liquid fuel—e.g. propane & fuel oil for built environment heating as well as gas & diesel for transportation and agricultural equipment. There are four key reasons why investigating this sector is particularly interesting. First, Vermont imports 100 percent of the fossil fuels used in the state; no fossil fuels are generated here. That heavy reliance on imported fossil fuels has many implications; including sending 8 out of every 10 energy dollars spent in the state, out of the state. Second, while the state's electric utilities and Vermont Gas are regulated entities (*see Efficiency VT project statement for a description of this regulatory scheme through the Public Utilities Commission and the Department*

⁵ <http://vnrc.org/about-vnrc/mission/>

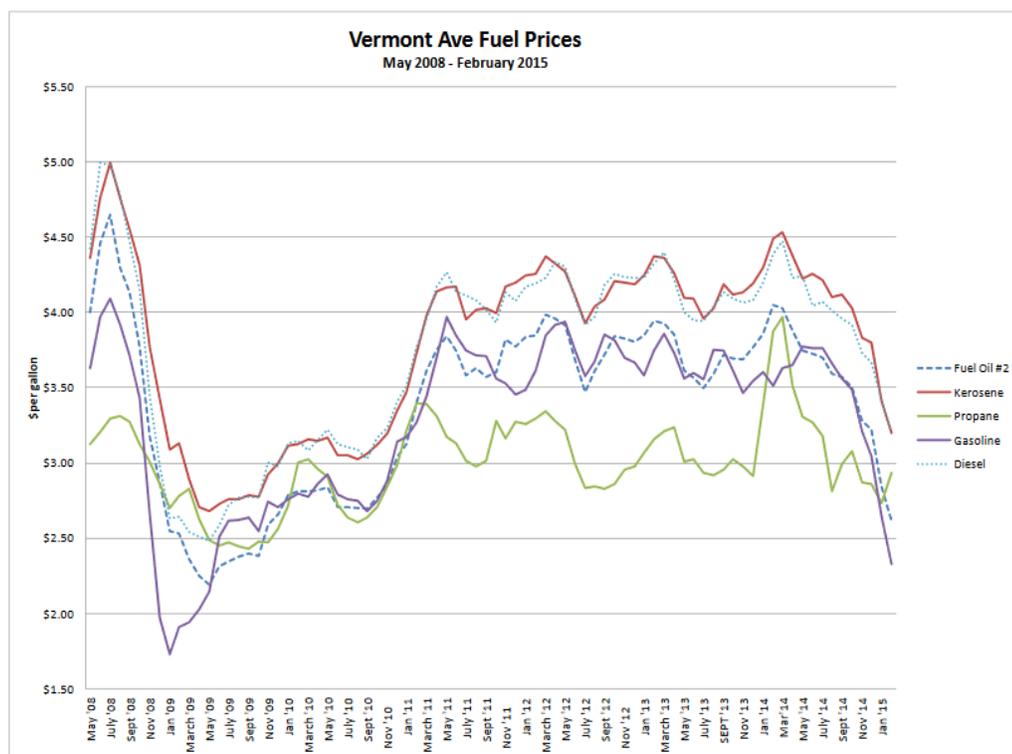
⁶ <http://vnrc.org/programs/energy-climate-action/>

⁷ <http://vnrc.org/programs/energy-climate-action/education-and-advocacy/>

⁸ http://publicservice.vermont.gov/publications-resources/publications/energy_plan/2015_plan

of Public Service), fuel dealerships in Vermont operate in an unregulated space. Third, fossil fuel prices have a history of volatility as the below graph of Vermont fuel prices from 2008-2015 depicts.⁹ Again, as a 100-percent liquid fuel importer, this volatility has significant implications – including potential budgetary impact and planning repercussions.

Lastly, over the past several years, there have been at least eight proposed carbon pricing bills that all have the common aim of reducing carbon-based fuel usage. Further, carbon pricing could serve as one important way to begin to potentially regulate or otherwise ensure that the unregulated fuel sector participates more actively in Vermont’s energy transformation. As one fuel dealer was quoted as saying during a discussion of these policy proposals, he felt like he was attending the funeral of his industry. For VNRC and others, the goal is not to drive Vermont’s fossil fuel industry



into the ground – many of whom are longstanding, mom-and-pop shops. The goal instead is to gain a better understanding of the state of the state for this important energy sector and, ultimately, identify ways that the state and Vermonters might support fuel providers in expanding the services and products they offer.

The work of this team will begin with engaging fuel dealers in a conversation around a series of topics including 1) are they aware of Vermont’s climate and energy goals; 2) if they are already aware of these goals, what are they already doing or what are they planning on doing to help meet these goals; 3) if they are already taking an active role, what have they been doing and what support do they need to magnify their efforts; and 4) if they are not taking action, why is that, and, importantly, what barriers need to be broken down / what opportunities, incentives, infrastructure or other supporting frameworks need to be developed? These are challenging conversations, as the needed changes and actions upend the status quo and set the stage for a transition away from “business as usual.” To some providers, this could feel threatening. However, there are already models of fuel dealers that have successfully diversified by offering biofuels, wood pellets, or installing and servicing heat pumps (e.g. Energy Coop of Vermont and Bourne’s Energy). Further, this transition would yield many benefits as stable, local, and green fuel sources would have much less price volatility (see graph below), would allow fuel dealers to tap into the burgeoning clean energy job sector, and would help the state meet its climate goals.

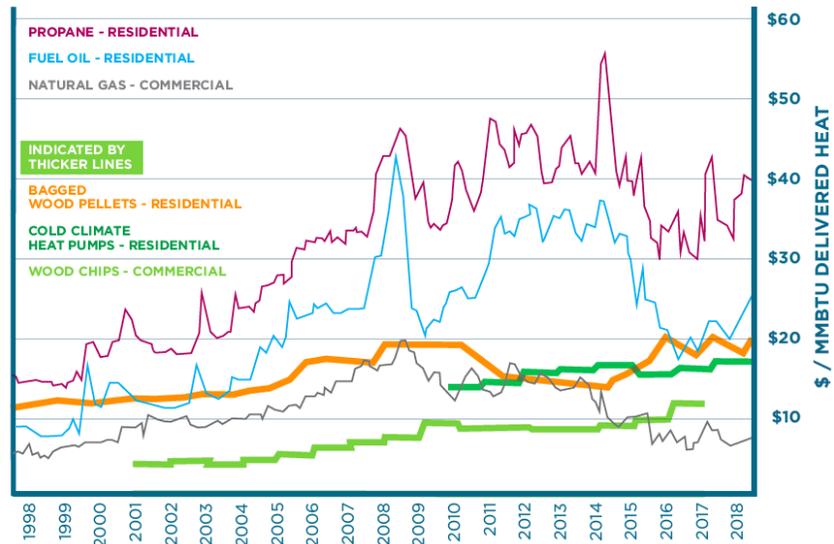
⁹ <http://publicservice.vermont.gov/sites/dps/files/documents/general/FEBUARY%202015%20Fuel%20Price%20Report.pdf>

AVERAGE HEATING FUEL PRICING TRENDS (1998-2018)¹⁶

**Stable and
low-cost
renewables**

vs.

**Volatile
fossil-fuel
prices**



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The second area of inquiry then for this group is to discuss with fuel dealers what sort of support they would need to enact this transition. Lastly, while these private fuel dealers are currently unregulated, this group can research whether this transition away from fossil fuels *needs* to be spurred by policies (a legislative framework) or some other regulated approach. In part, this question is grounded in the reality that VT has seen significant progress in the electricity sector, helping electric utilities achieve largely renewable electric portfolios (with requirements to go even further) and helping to grow the fastest part of the state's economy in clean energy jobs. Exploring the questions of how much of that success was based on the fact that the electric sector is regulated, as well as the role that strong policy requirements and incentives have played in reducing reliance on carbon-based energy sources is important. It will also be important to explore whether there are other opportunities beyond policy/regulatory approaches and what those might be. Knowing that there is no silver bullet strategy, you can explore a compendium of approaches that will be required to make more progress in Vermont's unregulated liquid fuels sector. Your research here could include conversations with the Public Utilities Commission, fuel dealers again, as well as looking at models from other states.

Desired Outcomes

- The information you gather should be framed as a series of insights that will help inform VNRC about how they should talk about this market sector transformation with legislators and the general public, as well as how they can engage their allies around this topic. What you learn will also be helpful to VNRC in terms of deepening their understanding of how fuel providers (of different sizes and scales of operations) are thinking about/concerned about climate change (or not) and how they are transitioning their business model (or not) to reflect and support a move away from fossil fuels.
- Identifying any fuel providers that VNRC, policy makers, and others might continue this important conversation with to explore and ultimately advance helpful policy, programmatic, job training/workforce development or other solutions to support the transition to new approaches.

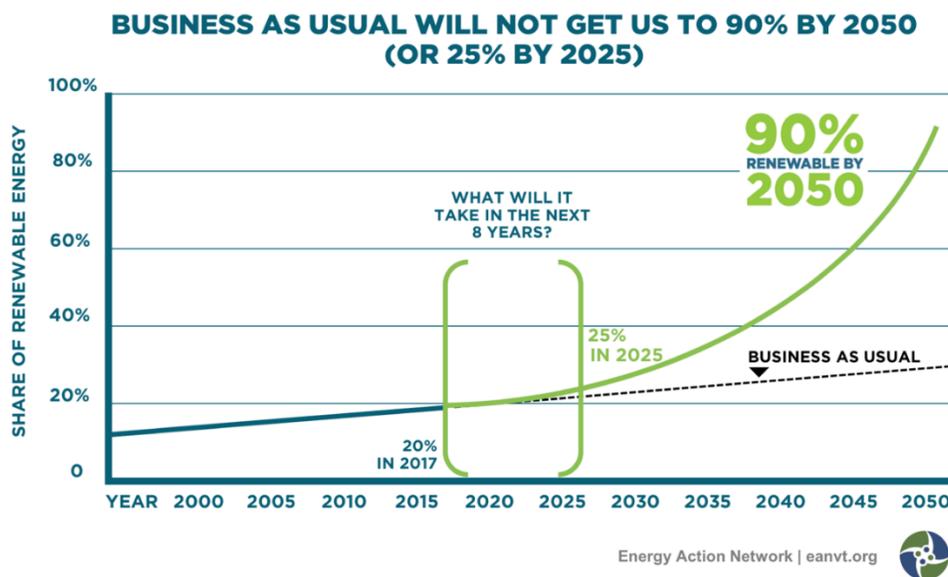
¹⁰ <http://eanvt.org/2017annualreport/>

#3: Project Statement for Collaboration with the Energy Action Network

Introduction

The Energy Action Network (EAN) is a collective impact network made up “nonprofit, business, and government leaders working to transform Vermont's energy economy” with the mission of “ending Vermont’s reliance on fossil fuels and creating clean, affordable, and secure electric, heating, and transportation systems for the 21st Century.”¹¹ Their work is oriented around four leverage points: capital mobilization, technology innovation, regulatory reform, and public engagement. Their energy transformation goal is the 90% renewable energy by 2050 target (inclusive of transportation, thermal, and electricity energy uses) laid out in Vermont’s 2016 Comprehensive Energy Plan.

Before this 2050 target, there are intermediate goals such as Vermont’s statutory goal of 25% renewable energy by 2025. Part of achieving this will also include reducing overall energy consumption, with benchmarks for 15% reductions by 2025, and more than 33% reductions by 2050.¹² As detailed in EAN’s 2017 Annual Report, however, the state is falling short of meeting even these intermediary goals. While there has been good progress in the electricity sector, the transportation and thermal energy sectors are far behind. This is particularly problematic given the fact that the transportation and thermal energy sectors represent the largest contributors (70% combined) to Vermont’s greenhouse gas emissions.



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Given these shortfalls, EAN is launching the Vermont Energy Future Initiative in order to jumpstart the needed actions over the next 8 years. This initiative represents the “convening of a diverse, multi-sector initiative to develop and advance high-impact ideas that can make significant progress towards meeting Vermont’s 2025 total energy & climate goals while creating an equitable, thriving, and sustainable Vermont.”¹⁴ Partnering with EAN will give this group an opportunity to think about theories of change—here also centered around achieving Vermont’s CEP goals— within network and collective impact frameworks.¹⁵

¹¹ <http://eanvt.org/>

¹² https://outside.vermont.gov/sov/webservices/Shared%20Documents/2016CEP_Final.pdf

¹³ <http://eanvt.org/2017annualreport/>

¹⁴ <http://eanvt.org/initiative/>

¹⁵ <http://www.collaborationforimpact.com/collective-impact/>

Project Description

The project work for this group will serve the efforts of the Vermont Energy Future Initiative (the Initiative) and therefore also EAN's energy transformation goals. As this initiative is just getting underway (first meeting in late September/early October), this project offers unique opportunities and challenges. You will have the opportunities of both observing and contributing to the inception of a new initiative, but will also need to be flexible and adaptive to the potential for shifting goals as new priorities emerge.

The starting point for both your and the Initiative's work is EAN's 2017 Annual Report. While it details EAN's work and efforts over the past year, in large part it functions as a report card on VT's progress in meeting its climate and energy goals. Pairing this report with a past-present-future analytical arc will be the framework that guides the Initiative's efforts. One area of work that this team could undertake is conducting a gaps and opportunities analysis focusing on the past to present time horizon. For example, one noted gap already mentioned is that the transportation and thermal energy sectors are lagging far behind the electricity sector. What worked successfully for the electricity sector in the past that can be applied to transportation and thermal energy in the present? Around EAN's leverage points of capital mobilization, technology innovation, regulatory reform, and public engagement, where aren't these leverage points being connected with needs? Why are some leverage points easier to enact than others? And lastly, are there innovative policy proposals, pilot projects, or research opportunities that other states and countries are engaging with that could be informative for Vermont? Interesting contacts that you make through the course of your research could also be shared with EAN for a new speaker series they are developing. The gaps that you analyze will be strategically developed in collaboration with your partners at EAN, Jared Duval (Executive Director) and Sarah Wolfe (Network Director), so there is not duplication with the work of a subset of Initiative members.

The second potential area of work would involve helping to capture and synthesize the extensive knowledge, diverse experiences, and varied strategic perspectives assembled by EAN's group of experts (the 24 Initiative members). This would likely involve conducting interviews but may also include surveys, focus-groups, participant observation at meetings, and analyzing documents, as appropriate. The goal would be to help develop a detailed portrait of the "state of play" in relation to energy politics and work ongoing in Vermont: in other words, a triangulated understanding of the strategic terrain based on the considerable knowledge brought together by EAN's experts. You could engage these thought leaders around 1) their roles in, observations of, and strategic intuitions regarding ongoing efforts to effect an energy transition in Vermont and 2) the key questions and key ideas that they deem important and which they may be actively pursuing. Elucidating the points of convergence and divergence among the various perspectives brought to the table would help guide the Initiative's work going forward. Further, it would help the Initiative develop a shared sense of investment, ownership, and common purpose and would also more deeply tap the expertise in the room—something that there would otherwise not be time to tease out during the four planned meetings.

Desired Outcomes

- The identification of strategic opportunities to help Vermont meet its climate and energy goals
- Insights that help shape the work of the Vermont Energy Future Initiative
- Through a combination of your engagement with EAN's 2017 Annual report and your gaps and opportunities analyses, contribute content as well as design ideas that would help shape EAN's 2018 Annual report.

#4: Project Statement for Collaboration with 350VT

Introduction

350Vermont was founded in 2011, catalyzing on the momentum created from the October 10, 2010 Global Climate Work Party when hundreds of climate actions were staged across Vermont. As captured in their mission statement, “350Vermont organizes, educates, and supports people in Vermont to work together for climate justice – resisting fossil fuels, building momentum for alternatives, and transforming our communities toward justice and resilience.”¹⁶ Structured as an independent, non-profit organization, and also as an affiliate of the international 350.org, 350VT focuses on Vermont-based issues including state and local policy, resistance actions to deter new fossil-fuel infrastructure, and movement building through grassroots activism.

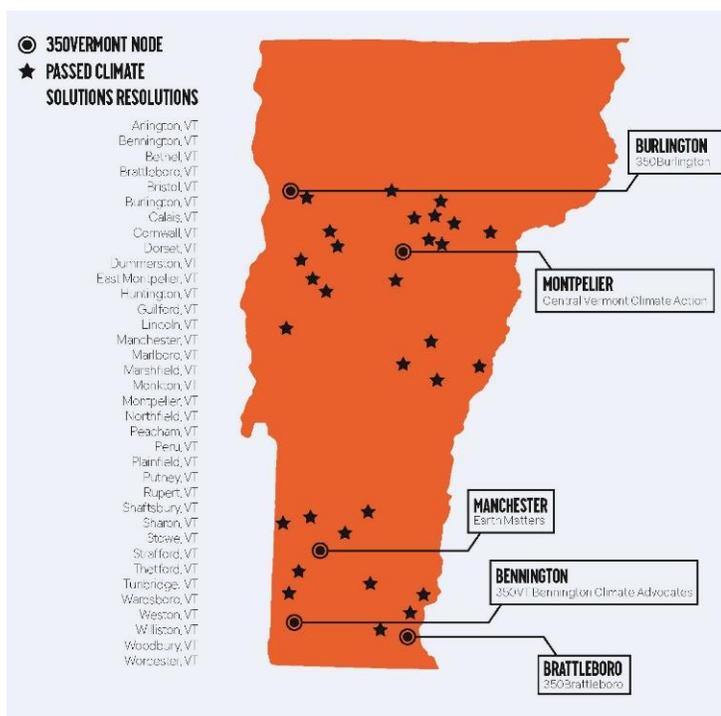
350VT’s grassroots activism theory draws on principles developed by 350.org and is organized along the “4-Rs” defined by Spirit in Action’s Theory of Transformation.^{17,18} These are:

- **REIMAGINE:** Conceptualizing New Systems
- **REFORM:** Working Within the Current System
- **RESIST:** Working On the Current System
- **RECREATE:** Generating New Systems

As stated in their 2018-2020 Strategic Plan though, 350VT established a goal to “strengthen and develop our own unique theory of change that speaks to our mission, vision, and core values.”¹⁹

In terms of their grassroots organizational structure, 350VT has established 5 regional nodes so that actions can be developed and implemented at an even more local level. These are located in Burlington, Montpelier, Manchester, Bennington, and Brattleboro. As you can see from this map, these nodes are strategically located near the 35 towns in VT that have passed some form of climate resolution calling on local officials to shepherd a just and sustainable transition to renewable energy. A sixth node is also just getting underway in Rutland.

In addition to the towns with existing resolutions, another strategic plan goal is that 25% of Vermont’s 255 municipalities pass similar resolutions. The nodes are not only working on getting new resolutions passed, but also on ensuring that existing resolutions are followed through on.



¹⁶ <https://350vermont.org/mission-more/>

¹⁷ <https://350.org/organising-principles/>

¹⁸ <http://spiritinaction.net/our-programs/our-approach/>

¹⁹ <http://world.350.org/vermont/files/2018/01/StrategicPlan.pdf>

Project Description

Detailed below are two overlapping areas of project work that are of interest to our partner, Lily Jacobson, 350VT's Volunteer Coordinator. The common theme for both is increasing and assessing efficacy.

The first area of work—which is the top priority for our partner—will focus on the functioning of the regional nodes. While these groups anchor direct and local actions and have been successful with short-term projects, they are also facing several challenges that are common for volunteer-led groups. These include 1) developing and maintaining a long-term focus, 2) group dynamics including questions of leadership and identity, and 3) the relationship to 350VT as a whole as well as other environmental groups in the state. Project work here will include engaging node members in reflective dialogs / interviews around these challenges and synthesizing and reporting back the common themes. These common themes could be a component of a guide that could assist all nodes in contributing more effectively to change. While there are of course numerous examples of local organizing toolkits, the specifics of how these tools can be effectively applied to the particularities of a local place is why your interview findings would be useful. As the Rutland group is just getting underway, this area of project work also offers an opportunity to attend some organizing meetings and observe the dynamics of how these types of local groups are established.

Another challenge for the nodes, and grassroots activism in general, is that passionate and dedicated individuals and groups can easily get frustrated when they can't sense that what they are doing is making a difference. 350VT is gearing up for two important campaigns / actions this fall. One just took place this past Saturday, September 8th and the other will be focused on the fall elections on Tuesday November 6th. September 8th was a day of statewide action organized by 350VT, the People's Climate Movement, and the Sierra Club which aimed to not only focus attention on and support the Global Climate Action Summit in San Francisco (September 12-14), but to also continue the demand for action in Vermont.²⁰ Actions included rallies, marches, a bike and walking tour of sustainable sites in Rutland called "Routes to Resilience", waterfront ceremonies in Burlington and more. For the November elections, the focus will be on having new municipalities pass climate resolutions and supporting candidates who will act on existing resolutions.

The second area of work—to be completed as the time and interests of this group allow--would focus on research and proposing metrics for the assessment / strategic analysis of these direct actions and interventions. This assessment work could then be a function of the regional nodes going forward so that they can tailor their actions to be as effective as possible.

Desired Outcomes

- Guidelines informed by member interviews to support the work of local nodes
- Propose a set of best practices / assessment metrics so that nodes can evaluate their direct actions
- Detailing how the above two bullets can inform/strengthen 350VT's future campaign work around climate resolution implementation (campaigns that will begin after the elections this fall).

²⁰ <http://globalclimateactionsummit.org/>