

Brighter **Vermont** 

# CommunityEnergyDashboard

BUILDING A BETTER ENERGY FUTURE. TODAY.

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***An invitation to engage at the local level...***

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*An invitation to engage at the local level...*

***How do we translate statewide  
90 by 2050 goals to local  
action?***

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BUILDING A BETTER ENERGY FUTURE. TODAY.

*An invitation to engage at the local level...*

***How can we make energy  
accessible to all Vermonters?***


Brighter **Vermont** 

# CommunityEnergyDashboard

BUILDING A BETTER ENERGY FUTURE. TODAY.

*An invitation to engage at the local level...*

***How do we get communities  
engaged in their energy  
future?***



# *A Collaborative Project of the*



**ENERGY ACTION NETWORK**



Vermont Sustainable Jobs Fund



Vermont  
**Energy Investment  
Corporation**

**Vermont Energy &  
Climate Action Network**  
*Energizing Vermont Communities*

*...and many other partners*

## *With funding support from*

**VLITE**

*Building An Energy Secure Vermont*



U.S. DEPARTMENT OF  
**ENERGY**

 **VERMONT**  
PUBLIC SERVICE DEPARTMENT

http://www.communityenergydashboard.org

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### Community Energy Stories



**Neighborhood Net Metering Solar Project in Underhill**  
In an effort to be more sustainable, Steve Webster and his wife Barbara Yerrick, decided to install solar panels on their barn roof, and to share the annual 12,000kWh of electricity generated with another neighbor and a small business. This project was so successful that Steve and Barbara decided to expand the project, adding five solar trackers for a total of 52,000kWh/year and another 5 households.

**How much energy does your community use?**  
Find out what your community is doing to transition to renewables and become more efficient.  
[Find Your Community!](#)

**Are you working toward a renewable future?**  
Help Vermont reach its goal of meeting 90% of its energy needs by efficiency and renewables 2050.  
[Take Action!](#)

### Recent Energy Actions [View All Actions](#)

<p><b>Community Action:</b></p>  <p><b>City of Montpelier</b> Montpelier, VT January 12, 2015</p> <p>Montpelier installed ground-mounted solar PV on a pole and is Making Electricity. <a href="#">Visit Site</a></p> 	<p><b>Individual Action:</b></p>  <p><b>Christopher Sylvester</b> Johnson, VT January 12, 2015</p> <p>Christopher performed a building audit and is Saving Electricity.</p> 	<p><b>Individual Action:</b></p>  <p><b>Amanda Blake</b> Burlington, VT January 1, 2015</p> <p>Amanda installed efficient indoor lighting and is Saving Electricity.</p> 	<p><b>Individual Action:</b></p>  <p><b>Todd Leonard</b> Lesczynski Essex, VT January 1, 2015</p> <p>Todd installed a roof-mounted solar PV is Making Electricity.</p> 
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CommunityEnergyDashboard  
Brought to you by:  
ENERGY ACTION NETWORK

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About My Community Stories Actions 90 by 2050 Energy Atlas Resources

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Vermont website design, graphic design, and web hosting provided by Vermont Design Works

## What is the Community Energy Dashboard?

A powerful website to help your community understand and analyze energy at the local level:

- > *Where you are now*
- > *Where you need to go*
- > *How you can get there*

TAKE ACTION ON BEHALF  
OF YOUR COMMUNITY —  
MOTIVATE, INSPIRE!

## How does it help communities?

The Dashboard provides simple online tools to set goals, track progress, map current and future actions, share stories and learn from neighbors and other communities across ALL energy sectors (efficiency, electricity, heat, transportation).

## Why was the Dashboard developed?

Towns across Vermont are asking for concrete ways to make clean energy and efficiency choices at the **local level**, to accelerate actions neighbor-to-neighbor, and to measure their impact.

## Who should use the Dashboard?

Anyone who thinks about energy in Vermont! Municipalities, energy committees, businesses, farms, schools, institutions, individuals....The Dashboard will be available to all 255 Vermont towns in 2016.

## What is the timeline for the Dashboard?

- 5-6 towns will pilot the tool by first quarter of 2016
- Available to the rest of Vermont Spring 2016



# ***Dashboard Tools: Seven ways to***

- Make energy visible
- Support clean energy choices
- Build community-scale awareness + change behaviors



**Timeline**

**Statistics**

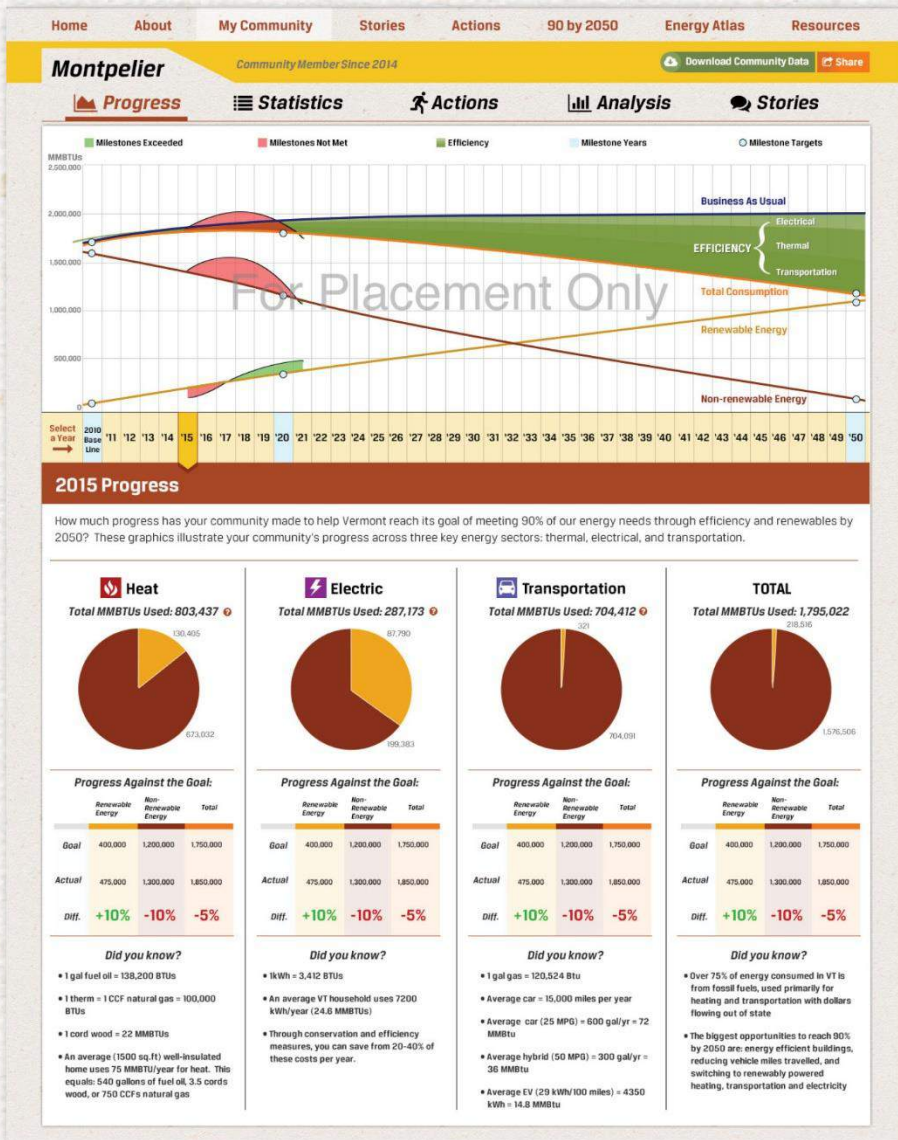
**Actions**

**Analysis**

**Stories**

**Mapping**

**Resources**



# Progress Timeline

A key feature of the Dashboard is an interactive **Timeline** that shows progress toward local renewable energy and efficiency goals.

Communities can utilize pre-loaded data or customize their Dashboard to track local progress toward reaching 90 by 2050

**TRACK: ANALYZE PROGRESS OVER TIME TO PREPARE YOUR TOWN ENERGY PLAN AND DEMONSTRATE IMPACT**

# *How is the data organized?*

## > 5 Town "Types" organized by population per sq.mile

**LARGE CITY:** >2,000 people (e.g., Burlington, Rutland, Bellows Falls).

**SMALL CITY:** >200 but <2,000 (e.g., Montpelier, Proctor).

**TOWN:** >40 but <200 (e.g., Waterbury, Springfield, Morrisville).

**RESORT TOWN:** Ski areas

**RURAL COMMUNITY:** <40 (e.g., Moretown, Duxbury, Peacham)

## > Underlying Data

> Official Census and energy use sources (e.g., VEIC/EV, EIA, PSD).

> Projections based on best available data in the Comprehensive Energy Plan and EAN Pathways analysis

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Montpelier Community Member Since 2014 [Share](#)

Progress **Statistics** Actions Analysis Stories

Population: 7,775 Area: 10.23 sq miles

# 76 Total Renewable Energy Contributors in Montpelier

This is a tool tip definition of Solar Sites. Lorem ipsum dolor sit amet.

60 Solar Sites [Hide Details](#) [View on Atlas](#)

Roof Mounted PV Sites			
Number of Sites	50	Total Capacity	50kW
Rank in VT	15	Rank in VT	15
Annual Generation	52,560 kWh	Rank in VT	15

Ground-Mounted PV: Fixed Rack Sites			
Number of Sites	2	Total Capacity	50kW
Rank in VT	15	Rank in VT	15
Annual Generation	52,560 kWh	Rank in VT	15

Ground-Mounted PV: Tracker Sites			
Number of Sites	4	Total Capacity	50kW
Rank in VT	15	Rank in VT	15
Annual Generation	52,560 kWh	Rank in VT	15

Ground-Mounted PV: Pole Sites			
Number of Sites	4	Total Capacity	50kW
Rank in VT	15	Rank in VT	15
Annual Generation	52,560 kWh	Rank in VT	15

Hot Water Sites			
Number of Sites	4	Total Capacity	50 MMBTU
Rank in VT	15	Rank in VT	15
Annual Generation	52,560 kWh	Rank in VT	15

- 2 Wind Sites [View Details](#) [View on Atlas](#)
- 1 Hydro Sites [View Details](#) [View on Atlas](#)
- 2 Heat Pump Sites [View Details](#) [View on Atlas](#)
- 7 Biomass Sites [View Details](#) [View on Atlas](#)
- 4 Efficiency Sites [View Details](#) [View on Atlas](#)

# Statistics

Communities can easily access information on all local renewable energy generation, and add their own data on efficiency.

- > How many sites?
- > How much energy is generated?
- > How does our town compare with others?

**INFORM: STATISTICS AND ACTIONS TAKEN BY YOUR COMMUNITY PROVIDE ADDITIONAL CONTENT FOR DECISION-MAKING**

Here is a collection of the actions that have been entered into our database from Montpelier. Please note, that this only represents the actions that committed community members have entered and does not represent every action that has been made to increase the use of renewable energy. If you'd like this data to be more accurate, please add your own actions [here](#) and encourage your friends to do the same!

+ Add New Action

71 Actions Entered in Montpelier



25 Heat Actions Taken

View Actions



29 Electric Actions Taken

View Actions



17 Transportation Actions Taken

View Actions



17 Planning Actions Taken

View Actions

Performed a building audit.

9 Actions Performed

Use an efficient computer.

8 Actions Performed

Installed an efficient electric hot water heater.

3 Actions Performed

Installed ground-mounted solar PV tracker.

2 Actions Performed

Installed ground-mounted solar PV on a pole.

2 Actions Performed

Installed an efficient refrigerator.

1 Actions Performed

Installed roof-mounted solar PV.

1 Actions Performed

Installed wind turbine.

1 Actions Performed

Installed anaerobic digester.

1 Actions Performed

Installed combined heat and power project.

1 Actions Performed

Installed hydropower project.

1 Actions Performed

Installed Community Solar PV project.

0 Actions Performed

Installed fixed rack ground-mounted solar PV.

0 Actions Performed

Installed efficient indoor lighting.

0 Actions Performed

Installed efficient outdoor or street lighting.

0 Actions Performed

Categories

All Actions

Heat

Electrical

Transportation

Planning

Individual

All Actions

PREV 1 2 3 4 5 6 7 8 NEXT

Community Action:  
**City of Montpelier**  
 Montpelier, VT  
 January 12, 2015

Montpelier installed ground-mounted solar PV on a pole and is Generating Electricity.  
[Visit Site](#)



Farm Action:  
**Name of Farm**  
 Burlington, VT  
 January 1, 2015

Name of Farm installed efficient indoor lighting and is Saving Electricity.



# Actions

Action Tiles provide easy & fun way to track progress.

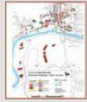
> Check off specific energy actions related to Heat, Electricity, Transportation or Planning.

> Include actions from town, businesses, schools, farms, residences

**ENGAGE: ADD UP THE RESULTS AND VISUALIZE YOUR COLLECTIVE IMPACT!**

**Add Your Own Analysis:** Use this section to upload analyses, maps, data, surveys and descriptions that are relevant to your community.

+ Add New Analysis



Montpelier District Energy  
CHP Feasibility Study



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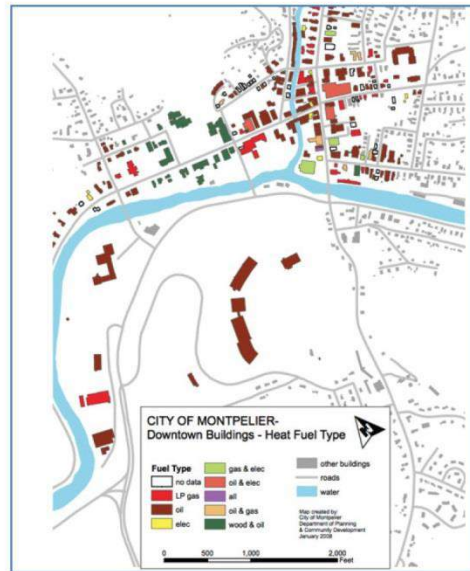


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**Montpelier District Energy CHP Feasibility Study - Mapping Heat Fuel Use**



Download Image

The City of Montpelier contracted the Biomass Energy Resource Center (BERC) in October 2008 to carry out a feasibility study to assess the potential for a combined heat and power (CHP) system for a wood-fired district energy system. The system would link a central CHP to a network of buried heat distribution pipes connected to all the larger buildings in and around Montpelier's downtown. As part of this study, BERC developed a map of the heat fuel types of existing downtown buildings in order to assess the cost-effectiveness and carbon reduction of switching to a CHP system for the city.

[Visit the City of Montpelier Website](#)

[Montpelier-Feasibility-Study.pdf](#)

Uploaded by David Abbott

# Analysis

Communities can upload their own local energy analyses.

- > Provide local context to energy decisions
- > Help other communities to learn from best practices, and avoid reinventing the wheel

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Home About My Community **Stories** Actions 90 by 2050 Energy Atlas Resources

Submit Your Story Idea Share


Click Here to View Stories for a Specific Community

Categories


- All Stories
- Heat
- Electric
- Transportation
- Planning

**All Stories**


< PREV 1 2 3 4 5 6 7 8 NEXT >

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[Read More](#)

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[Read More](#)

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[Read More](#)

# Stories

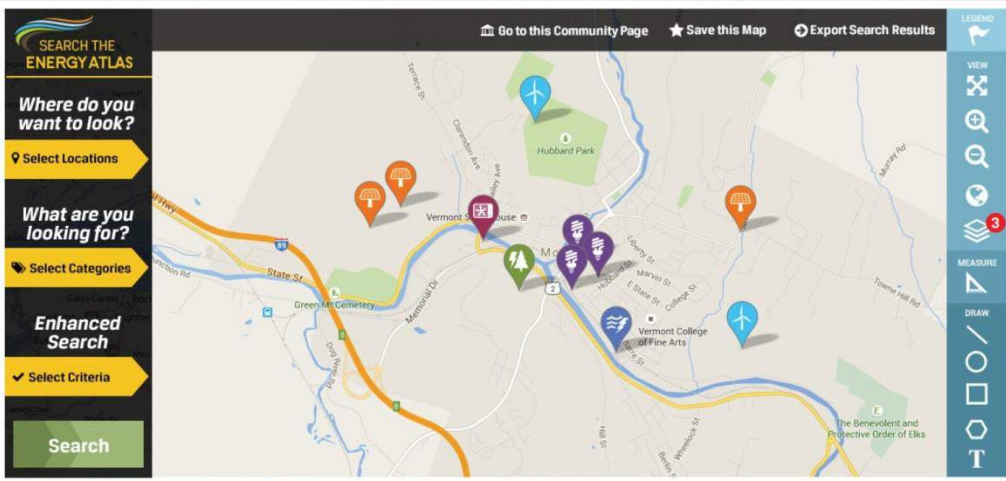
Stories are a way to highlight the energy action happening in *your* community with *your* neighbors

- > Help others understand how easy it is to save money and energy
- > Celebrate local energy heroes
- > Link stories to social media and spread the word

**EDUCATE: SHARE YOUR TOWN'S ENERGY STORIES AND ACTIONS AND LEARN FROM OTHER COMMUNITIES.**

## Energy Atlas

+ Add New Energy Site Share



### About the Energy Atlas



The **Energy Atlas** helps you identify, analyze, map and visualize existing and promising locations for renewable energy and energy efficiency projects. Select your community or area of interest and an energy option--solar, wind, hydro, heat pumps, biomass, and efficiency--to generate your map.

## Where does the data come from?

Atlas data comes from the Vermont Public Service Department, Vermont Center for Geographic Information, Renewable Energy Vermont, and you!

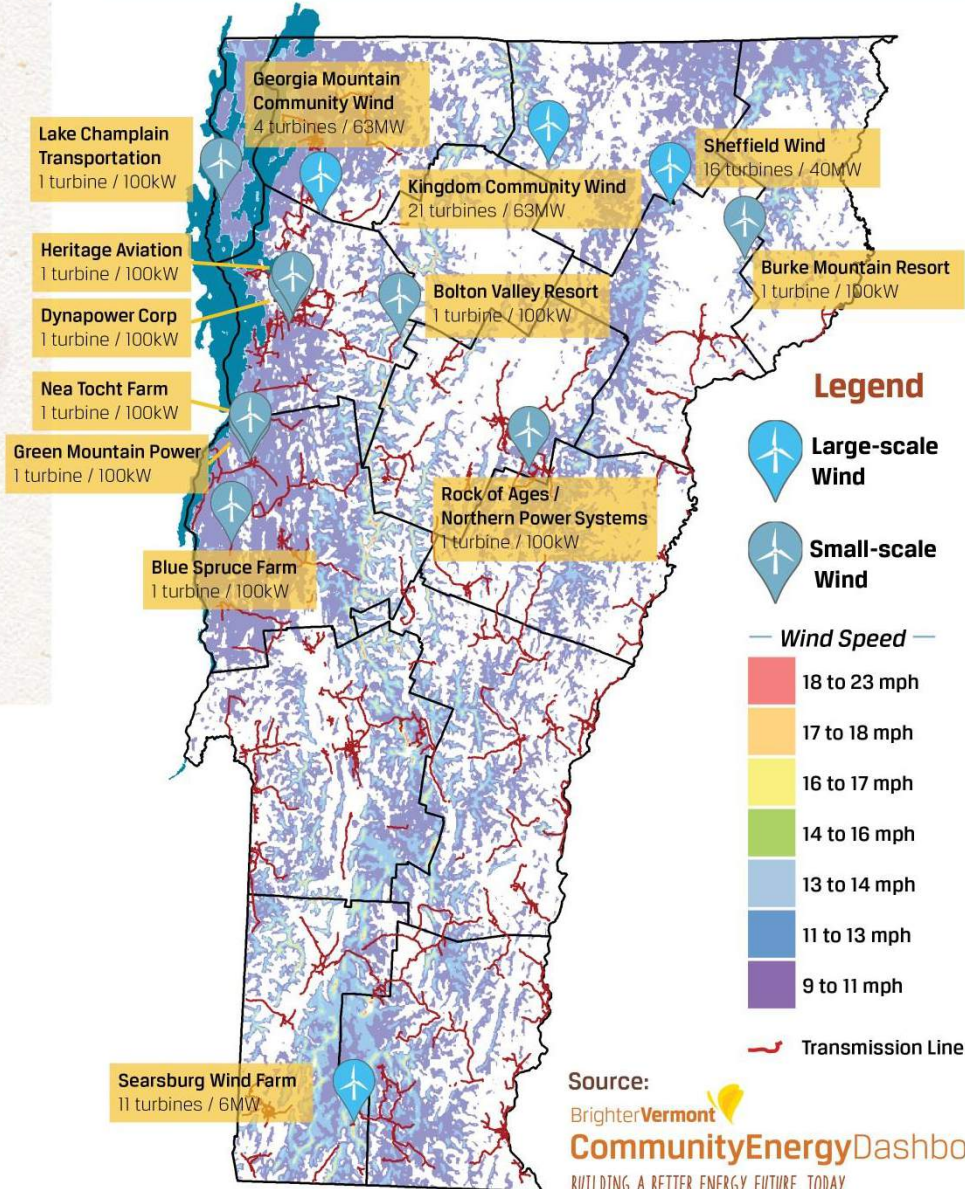
# Mapping

The Energy Atlas makes it possible to:

- ✓ Map every renewable energy site in your community
- ✓ Add new energy and efficiency sites
- ✓ Use tools to determine potential sites based on environmental, utility, and other key data
- ✓ Create community maps by technology, town, utility, site type, system size.



# Wind Projects Over 100 KW



Source: BrighterVermont  
**CommunityEnergyDashboard**  
BUILDING A BETTER ENERGY FUTURE. TODAY.

VISUALIZE: MAKE ENERGY VISIBLE  
THROUGH UNDERSTANDING  
WHERE IT EXISTS IN YOUR  
COMMUNITY.

## Resources



The Energy Action Network created a one-stop shop called **Brighter Vermont** to make it easier for you to access information about energy so you can make the wisest choices and investments for your community, business or home. The links below will take you to the specific information, organizations and businesses that fit your needs.

### Heat

Learn how to lower your heating costs and increase your comfort.

[Resources for your home](#)

[Resources for your business](#)

[Resources for you school](#)

### Electric

Simple steps to be more efficient and lower your electric bills.

[Resources for your home](#)

[Resources for your business](#)

[Resources for you school](#)

### Transportation

Options for reducing your dependence on fossil fuels.

[Resources for your home](#)

[Resources for your business](#)

[Resources for you school](#)

### Financing Options

Money is the most common reason cited by Vermonters who have not yet invested in renewables or efficiency. But it doesn't have to be! Learn about a host of rebates, incentives and low interest loan programs that make investing in renewables and efficiency more affordable than ever.

[Resources for loans, rebates, incentives, and financing](#)

### Planning

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[Resources for understanding energy](#)

[Resources for energy planning](#)

# Resources

Link to important resources and partners:

- Heat
- Electricity
- Transportation
- Financing Options
- Local Energy Planning

For your home, school, business, farm, community

# Community Energy Dashboard = Collective Impact

**1** Common Agenda

**2** Mutually Reinforcing Activities

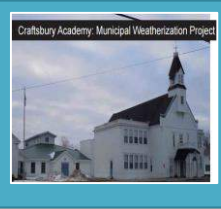
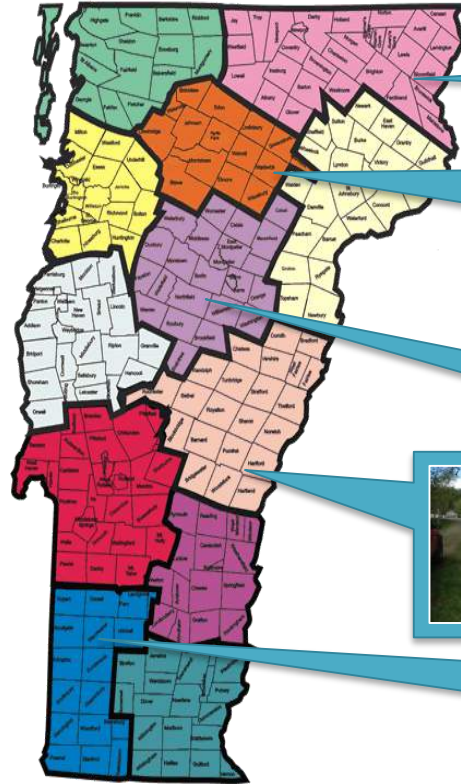
**3** Continuous Communication

**4** Backbone Support Organization

**5** Shared Measurement System

**6** Funding

*Each of our actions count...*



Craftsbury Academy, Municipal Weatherization Project





# CLIMATE SUMMIT

WHAT IF IT'S  
A BIG HOAX AND  
WE CREATE A BETTER  
WORLD FOR NOTHING?

- ENERGY INDEPENDENCE
- PRESERVE RAINFORESTS
- SUSTAINABILITY
- GREEN JOBS
- LIVABLE CITIES
- RENEWABLES
- CLEAN WATER, AIR
- HEALTHY CHILDREN
- ETC. ETC.

