

Addison County Goes After Greenhouse Gases

By Sidra Pierson and Richard Hopkins

This summer, members of the Climate Economy Action Center of Addison County completed over 40 interviews with a diverse set of community members. We asked about what they are already doing to reduce greenhouse gas (GHG) emissions in the community, what they are planning to do, and what opportunities and barriers they see ahead. This information will help shape a Climate Action Plan for Addison County, with a projected completion date of January 2022.



The good news is that there is already a *lot* happening and planned to reduce our GHG emissions; and there are numerous opportunities to make an even bigger impact.

Interviewees said:

“I think this is the single most important problem that the human species has ever faced.”

“I think all in all, global warming is really bad news for our business and for everybody.”

“Hope without action is meaningless. So I think that's why you and I, and all the people working on this, stay active. Because if I wasn't active, I think I would be losing hope.”

“When you provide access to people who are harmed and impacted the most, it has a ripple effect into helping all of us.”

“This is our decade, [this is the] moment, and that's the energy behind this [planning process].”

Of the 40 interviewees, seven work in agriculture, 20 work on aspects of buildings, industry and energy production, six work on powered equipment and transportation, and seven are engaged in cross-cutting activities.

Some successes so far:

- ❖ No-till farming (which will increase carbon stored in the soil) has been widely adopted: “[The amount of fuel savings] itself was an eye opener. But the thing that was of even more interest to me was the labor savings.”
- ❖ “Efficiency Vermont has helped Vermont bend its electrical energy consumption curve down for roughly 20 years now. We have the flexibility now to absorb the needs of more electric vehicles and more electric heating.”

- ❖ Town energy committees and the county walk/bike council have been effective advocates for energy savings, for example by promoting safe routes to school.
- ❖ Working from home full- or part-time has become more practical for many workers.
- ❖ Many new buildings have been built to very high energy efficiency standards, including net-zero town offices for Middlebury and Monkton, and an affordable housing complex in Vergennes, and others are planned.
- ❖ Many new homes have been built with cold-climate heat pumps as their primary heat source, and many homeowners have switched away from the most expensive and polluting fossil fuels for home heat.
- ❖ Goodrich Farm bio digester is supplying biofuel to help heat Middlebury College.

Some upcoming local climate change actions:

- ❖ Continued adoption of no-till and organic practices, to increase soil storage of carbon
- ❖ Pilot electric tractor program through Champlain Valley Equipment
- ❖ Middlebury College will reduce energy consumption on its core campus by 25% by 2028.
- ❖ Incentives and technical assistance are available to help homes and businesses weatherize, improve industrial processes, and install heat pumps, solar panels, LED lighting, home EV chargers and home batteries.
- ❖ The state weatherization program will weatherize 120,000 additional homes by 2032.
- ❖ Tri Valley Transit will switch gradually to electric buses.
- ❖ The town of Middlebury will reduce its GHG emissions by 80% from 2018 to 2030.
- ❖ Businesses are ready to install EV charging stations as soon as the market will support them.
- ❖ Acorn Renewable Energy Co-Op has sold almost all the shares of a new solar array located on a former brownfield site in Bristol.

Nonetheless, challenges remain. Barriers to reducing GHG emissions can be financial, technical, or educational.

Financial barriers include initial investment costs in new equipment and vehicles, especially when existing equipment has a long lifespan. Initial investment costs for greener and more efficient technologies contribute to the high on-going energy burden on low-income households.

Technical barriers include the need to upgrade the existing electrical grid to store and transmit sufficient electricity to allow solar and wind power to be our only sources; perceived unreliability of some electric equipment and vehicles; limitations on charging electric vehicles (lack of access, time spent, length of charge); and limitations on switching diesel vehicles and equipment to biodiesel.

Barriers related to education and information include: farmers often don't have the time to keep up with and learn about new technology and processes; many people don't know how to go about weatherizing their homes in an affordable and effective way; business owners are reluctant to take anything on that they aren't pretty certain will pay off in a reasonable time; uncertainty about how to obtain EV subsidies/economic incentives; and electric vehicle range anxiety.

Interviewees had advice about strategic goals for the community. One interviewee commented "If you crash the planet, you don't have a healthy economy." Others urged us to make a clear connection between GHG reduction and a healthy economy, and to set clear priorities among various possible strategies. One said we should be ambitious and strive for transformative change: "I would say the greatest risk of these climate action plans is taking an incrementalist approach that supports a business-as-usual model".

In contrast, several interviewees had concerns about the proposed quick pace of our local actions. For example, farmers can't afford to make many changes at once. "The small family farms are on the overall decline. So if you just stick the bill on the farmers, they're just gonna die." Others encouraged us to think about the bigger picture – for example, should Vermont continue to support the dairy industry? Should we instead be supporting a careful transition to human food crops and regenerative agriculture?

In the area of buildings and energy, respondents urged us to think beyond net zero, to include reducing emissions from production of construction materials and by altering construction methods. They urged us to consider initiatives specifically aimed at renters, like incentives for landlords to weatherize and improve energy efficiency. Some want to see even more of a focus on reducing the burden on low-income households of ongoing energy costs.

In the area of transportation, some respondents expressed concern about how to make needed actions easier and less burdensome for low-income people. Respondents want to improve public transit options, but recognize that rurality presents a challenge.

CEAC is planning an extensive process of public engagement later this year and in early 2022, to help us finalize a community plan that identifies concrete actions that various people and organizations in the community will take. With this timing, we will be able to identify local actions that, among other things, help to implement the state's Climate Action Plan mandated by the Global Warming Solutions Act.

To conclude, we quote from interviewee Ross Conrad, who nicely summarized our whole approach. Ross is a Middlebury beekeeper and former chair of the Middlebury Energy Committee.

"Well, here's the thing. It's the cumulative impacts of individual actions which caused the problem in the first place. And I think that's going to be the only thing that solves the problem in the end. Yet at the same time, individual action isn't going to be enough, without national,

state and local policies that drive it as well, you need both. And then we need businesses to work too....Governments and businesses primarily respond to what their constituents and their customers want, and are asking for. If the people aren't asking for it, businesses and governments are going to drag their feet, they're just not going to do it, or not do it fast. So it all has to happen. If we focus on one or the other, we're going to fail. Individuals have to change. And that's going to help businesses and governments to change as well."