

New Acorn Solar Project Is Now Online

Article by Steve Maier, CEAC Board

A new, innovative solar project came online in Addison County in mid-March, developed by the Acorn Renewable Energy Co-op. The solar part is not innovative; the technology and electrical connections have been done now many times. Rather, what makes it different is that local businesses, the host town of Shoreham, area churches, and Addison County residents are benefitting directly. It is a truly community solar project, developed and owned by people in Addison County. More information on the project, including pictures, is available at <https://bit.ly/3bSUAjB>.

My wife and I are participants in the project, which means we were able to purchase an ownership interest in a number of the solar panels. The power produced is sold back to Green Mountain Power (GMP) and the value shows up as a credit on our electric bill.

We also have solar panels on our house, but they don't generate enough to cover all our power needs. This is largely because we do all our heating with cold-climate heat pumps and, when needed, a few traditional electric heaters. We don't use any fossil fuels for heating or cooking, except that we still sometimes take power from the grid and about 10% of GMP's power comes from fossil fuels.¹ We do buy gasoline for a car and a lawn mower, but we hope to switch those to all-electric as soon as possible.

We have made these changes because we want to do our part in reducing the amount of carbon dioxide pollution that is warming the planet at alarming rates. According to the world's leading climate scientists, in order to avoid catastrophic impacts, "Global net human-caused emissions of carbon dioxide (CO₂) would need to fall by about 45 percent from 2010 levels by 2030, reaching 'net zero' around 2050."²

So, what would it take for Addison County to achieve these kinds of carbon emission reductions? The major categories of CO₂-producing activities are fossil fuels for home heating (about 29%) and commercial uses (about 11%), other electricity (about 12%), and vehicles (about 48%). We are lucky in Vermont that the CO₂ produced to make our electricity is low and falling. We can cut our CO₂ releases roughly in half if half of the people and businesses switch to heat pumps and to electric vehicles in the next 10 years. Or perhaps everyone could switch half of their heating and driving to electric.

Most likely, we'll do some of both. Switching our heating and transportation to electricity will be by far the most important, and that will be easier to do if our buildings, vehicles and production processes are more energy efficient.

During the next few months as we all hunker down due to the coronavirus, CEAC will produce a series of articles and commentaries in part to answer this question: **What will it take for Addison County to**

¹ GMP's power supply is 90% carbon free and 60% renewable, with a commitment to be 100% carbon free in five years, 100% renewable by 2030. (<https://tinyurl.com/vpc9xa7>)

² International Panel on Climate Change, October 8, 2018 (<https://tinyurl.com/y9jxdc39>)

reduce its current carbon emissions by half by 2030? We will be digging into topics such as electric vehicles, heat pumps, and businesses that are leading the way in Addison County.

What are your questions? We would be happy to try to answer them. Please send them to us at office@ceacac.org. We would also welcome article submissions.