Our First Photo-Voltaic Year

Having read with dismay the stories of people who are struggling to pay their electric bills, I thought that I'd report on our experiences generating rooftop electricity with our year-old photo-voltaic system.

Our 24 panels are rated at 9.6 kwh, which means that if located in an ideal location, on an ideal day, they can produce 9.6 kilowatts of electricity each hour. The southern roof of our house is occupied by hot water solar panels which have been heating our water since 1979, so only the eastern and western roofs were available for the P.V. panels. The exposure is not perfect, but on a good day, at peak hours, they can generate almost 7 kwh. This is more than adequate to run all our appliances requiring approximately 3 kwh to operate simultaneously, including a freezer, basement dehumidifier and 4 mini splits running off 2 heat pump compressors. The excess electricity goes into the grid for a credit from U.I. As of last month's bill, U.I. owes us almost $800 in credit which we will be able to apply this winter. We haven't had to pay an electric bill since February. Our system was installed too late last year to generate enough credit to last us through the past winter, but I expect this season's electric bill will be negligible even though we will supplement our furnace heating with the mini splits.

Saving money might be a top priority for some, but a P.V. system provides many other benefits in this time of climate change. Since this past January, ours has had an environmental impact that I never realized was possible: In addition to generating 9MWH and exporting 1,000's of kilowatt hours into the struggling grid, this year it has freed the air we breathe of 4.3 tons of CO2 that otherwise would have been produced by burning the fossil-fuel electricity generators would have used to power our home. 4.3 tons. For one home. Linger on that mind-boggling number: Just one average house would have caused 4.3 tons of CO2 to spew into the atmosphere since this January if not for photo-voltaics on its roof. Then recognize that most of our homes have been steadily contributing to this death sentence for decades.

Of course, if there were room, we could have planted 72 trees instead of installing the system. Once mature, they would have removed as much CO2. But few of us have the space, and the planet is running out of time.

Then there's the relief P.V. systems provide the overburdened grid: One less home to supply- and leftover carbon-free power the utilities won't have to produce.

Sympathetic folks struggling to pay their electric bills can reasonably declare themselves unable to afford a P.V. system. But consider this: Ours cost a touch under $31,000, but with a $9,000 income tax credit, the price went down to $22,000. That's cheaper than buying a car, and instead of losing its value immediately, the system generates income. Nor is there a sales tax on it- nor will your property taxes increase.

This November when I cast my vote, I'll be sure to support candidates who understand that when the climate changes, as it always has, hell breaks loose, and species disappear. If you think the weather this summer has been miserable, just imagine what the future has in store. Solar energy is just one remediation a citizen can apply to offset the harm we have been doing to our

planet - harm that is the legacy we are leaving future generations. Any politician insensitive to this basic fact, who is unwilling to use the power of the government to deal with this crisis, who would deregulate pollution restrictions, cut incentives that make green energy viable and affordable, hinder the production of carbon-free power in favor of those who poison our planet, is not worthy of the office.

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