

THE BEACON

Let the sun shine in

By Dana Snyder-Grant
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It was my husband, Jim's, idea. He's the environmentalist in the family. He got excited when neighbors, Sal and Linsey, put solar panels on their home in our cohousing community. Linsey's excitement was catching. "Our electric meter is running backwards!" she exclaimed last summer.

Jim and I considered panels on our home. When I began to pay attention, the magic allured me. Do you realize that sunshine is energy? Put simply, solar panels have a carefully arranged layer of electrons. When photons from the sun shine on the panels, electrons are knocked loose; this process generates electric current or kilowatt hours. The current feeds into the electric grid, and respective hours are automatically deducted from your "net meter." This meter runs forward when you use more energy than you generate. When the sun is shining and you generate more than you use, the net meter runs backwards.

By the summer of 2008, the state of Massachusetts offered generous rebates to households producing solar power. This convinced me to pay attention and grasp the science. We had the money in savings - \$26,000 - to invest in the panels up front. We would wait just six weeks for our rebates to come through, which would cover eighty percent of the cost.

I was raised in an era when water gushed out of our faucets without guilt; no one, but my visiting grandmother reminded me to turn off the water when I brushed my teeth. Paper mingled with bottles and cans in the trash. It would be decades before recycling was common.

By the time I married in 1990, the world had changed. Recycling bins sat next to the trash for weekly pick-up. I paid attention to my water use. My husband loved the outdoors; he guided me on walks in nearby woods and on overnight hikes in the White Mountains. In 2008, he was ready to introduce us both to solar power.



Panels at 18 Half Moon Hill - Going Up

We chose the same company who had installed Sal and Linsey's panels for work on our home. They saw that the house's solar orientation and our electric use made an excellent match. They drew up a plan for a 3.8 kilowatt array on our south-facing roof and prepared the paperwork for our rebates.

At the end of last August, the twenty solar panels went up. We turned on the inverter, the instrument that transforms the solar power into energy we can use. In the next 24 hours, we produced 16 kilowatt hours. Our electric meter started running backward during the daytime! And continued doing so into October. Then came November and my awareness peaked. I learned just how dark those winter days could be. We again received electric bills. But in March, we broke even; our kilowatt production matched our electric use.

I generally don't like the sun. I avoid heat and bright lights. In the summer, I wear hats and gravitate to trees and shade. But now, I want that sun to shine lots. Creating energy through nature calms me in its simplicity. Perspective and attitude change when you can have an impact. Let the sun shine!

You might think that since we now make our electricity from the sun, we might not feel any need to rein in our energy use. By contrast, I've become more conscious of that energy, with an inverter and net meter combined that chart our electricity. After seeing our use skyrocket on days we used the dryer, we now dry our laundry on wooden racks. During the final heat wave of last August, after our panels were installed, I insisted we resist turning on the air conditioning and use fans instead.

Today, the production meter shows that our solar panels have created 3,050 kilowatt hours since late August, 2008. During that time, we've used 3100 kilowatts, just fifty more than we've produced, giving us a savings of about \$600 so far. It's a partly cloudy day. I smile now when the sun peeks out from the clouds.

Linsey's enthusiasm continued after her first solar summer. She inspired our cohousing community to put solar panels on the neighborhood's common house. I didn't know if we could manage it with the economic downturn, but more households than I expected donated money. Maybe we wanted and needed to challenge the adversity around us; many felt it was time to change our relationship with energy and the wider world.

Now I look out my study window to see the block design of fifty-two solar panels on the common house. And I am reminded that it takes a community to sustain ourselves in this changing world.



Solar Panels on the New View Common House in Acton

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