

The Skinny

on the Power Diet

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The experience of most renewable energy users when visiting family and friends is the same. You find yourself lecturing about the benefits of compact fluorescents. Turning off lights in empty rooms becomes a mission. You call out through the house, "Is anyone actually watching this TV?" as you turn it off.

It is an all too easy trap to be smug about your energy conservation habits. Coming from a family who lectures, the words pop into my mouth unbidden. The reality is that my own power conservation regime is not untarnished.

When I'm Fat

In the wintertime when our creek is flowing well, our microhydro turbine is our main source of power. The sun comes up late and goes to bed early in our little canyon. The wind only blows before and during a storm, a rare event for us.

The hydro runs 24 hours a day, rain and shine, wind or no. When I go to sleep at night, I know that in the morning the battery bank will be fully charged and ready for another day of gluttonous use.

I can do as many loads of laundry as I like. I am limited only by my own ability to remember to go to the basement and start a new load washing and put the wet clothes into the gas dryer. This is also the time of year when water is plentiful for us. I have no worries there. I am frequently caught up on the household laundry. This engenders a feeling of smug accomplishment.

I'm able to run the dishwasher more often. I freely admit that the dishwasher is a luxury. I don't have to have it, but I always wanted one. I have indulged that desire. If I have the power to use it, I am not wasting our limited resources.

I leave the air cleaner on all day. Its nameplate rating is 55 watts. That's probably for the "high" setting, and when I leave it on, I use the "low" setting. Living as we do off the pavement and heating our house with a woodstove, our home gets very dusty. I feel that the air cleaner is an important wintertime appliance.

Cheating

In addition, there are guilty pleasures. Some of these I do because I can. Aw, face it. I do *all* of them because I can; I have the power.

I leave the TV on—just for background atmosphere. Coming from a large family, a quiet house makes me

uncomfortable. I find that music distracts me from my tasks. But a movie talking in the background works for me. I like movie channels with no commercials. Or I'll put on one of my favorite movie DVDs or VHS tapes. Movies like *Hatari!*, *A Town Like Alice*, and *Last of the Dogmen* come to mind. I've seen these so many times I don't have to pay attention to them. It's wrong, but there it is.

I use my bread machine. I could make bread by hand, but I find the bread machine so convenient. It takes five minutes to start the loaf, and three hours later, the machine beeps and the bread is done.

Bob-O and I are really careless about leaving on phantom loads in the season of hydropower. He leaves his portable drill battery chargers plugged in 24–7. I leave my cell phone charger plugged in. I have strung some LED icicle lights around our front door on the outside. I like them because they make the house look so inviting at night. I'm guilty of not turning them off in the daytime.

In our office, we have satellite Internet access. This is such an upgrade from our old dial-up service, we deem it a necessity. But in the winter, we leave the server PC and modem on all day—not just when we check our e-mail or want to get online. We have the good sense to turn off the monitor, because the PC is just a server for our office full of Macs. The PC doesn't need the monitor on to perform its task.

Excuses

I know that all this use seems excessive, and it is. I do check the system performance meters, conveniently mounted on the dining room wall, throughout the day. That is a habit that has never left me. When the hydro is going, the batteries never get below 95 percent charge, even after doing several loads of laundry, vacuuming, and running the dishwasher. The really wonderful thing about microhydro is that if you deplete your battery charge in the daytime, by the next morning the battery is full again. This lulls you into a sense of endless power, which as the summer season dawns, proves to be an illusion.

Getting Thin Again

I guess you could say the Power Diet is a yo-yo diet—you're fat, and then you're thin, then fat, then thin, and so on. As the creek waters recede, we must tighten our belts and reign in the exuberant power spending of the winter.

The Watt Loss Diet Plan

As the water level in the creek wanes, the spring brings the sun and wind. Days are longer and less cloudy. The wind turbine has a daily input to our system. With Soda Mountain at the top of our canyon and Iron Gate Reservoir at the bottom, we get a thermal effect that creates wind in our canyon. The wind starts every day between noon and one o'clock and continues until sunset.

Our batteries are still full during the day, but I do only two loads of laundry in a day at the most. One reason is less available energy; the other reason is our water situation. Our house water is supplied by a natural spring and therefore subject to our summer droughts, the same as the creek.

By midsummer, the daily wind has lessened and we rely on the photovoltaic modules (PVs) to supply our power. Gone are the guilty pleasures. I use the solar clothes dryer (clothesline). The LEDs around the front door are turned off. We become very diligent about turning off our phantom loads. All of our wall cubes for charging appliances are unplugged if we are not using them. The TV isn't turned on during the day. This works for me, as I spend more time outside when the weather is fine.

With the higher ambient temperatures of summer, the old Sun Frost refrigerator runs its compressors a little more often and a little longer. We run our swamp cooler in the afternoons to keep the house comfortable.

Kathleen is up the creek when there's no water to run her treasured microhydro.



We take advantage of the incoming solar-generated watt-hours by doing all our high watt-usage activities during the hours that the sun actually shines on the PVs. Alas, when we wake in the morning, the batteries are diminished in charge, rather than full. We turn on the satellite server PC in the morning to check our e-mail, and then off it goes. It's kind of a hassle to turn it on again if we need to use the Internet, but who said dieting was easy?

Ultimate Power Diet Guidelines

You have the power to transform the lifestyle you've been living. When you're off grid, enjoy your energy abundance when you can—in the rich months of RE production. During the leaner times, here are a few key strategies for making the most of every energy morsel and taking your power use to an entirely new level of self-control.

Exercise. Use your ability to reach out and turn off the unnecessary power users in your life.

Trim the fat. Shorten the times you use the appliances you must have.

Give up dessert. Enjoy your treats when you can, but know that in months of low energy production, a little willpower will serve you well.

If you follow these guidelines, and don't cheat, you'll soon see pleasing numbers on your scale (meter) that will make you feel in control again.

Access

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