

Small wind success story: Why I love my small wind turbine

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As director of engineering for hospitals and long-term care facilities for many years, I have a lot of experience with cutting energy costs to the bone at my workplace. I began to focus on ways to trim energy costs at home. After investigating my options, I determined that installing a 10-kW small wind turbine was my best power supply choice. My Southern California Edison electricity bills used to average about a hundred bucks per month.



But after installing my new renewable energy power plant, I didn't pay an Edison bill for an entire year! With that level of savings, it has been hard for me to understand why more Californians don't take advantage of a fuel that is abundant, free and a perfect fit for many homes and ranches throughout this state. State rebates and tax credits will cover much of the installation costs, so I can't think of a more fitting solution to California's over-reliance on polluting fossil fuels to keep our lights and air conditioners on.

My energy costs are typically higher in the summer. That's when my wife and I, as well as our grandchildren, use the pool and Jacuzzi. Although the high desert winds typically blow over my property more often during the winter months, I have also taken advantage of another state program that adds value to my small wind turbine. The program is called "net metering," and it allows me to bank my surplus power from the windy season in the winter against my higher energy consumption in the summer. If I use more power than I generate over the course of a year, I pay Edison for the difference; if I have surplus power in my account at the end of the year, the utility claims it. Net metering is really a simple barter system in which everyone wins.

My total energy savings over the course of a year adds up to at least \$1,200! On top of not having to pay for electricity, I was able to reduce my winter heating bill by supplementing my propane-fired heating system with electric room heaters in the bathrooms and master bedroom. Our small wind turbine has worked so well that my wife and I are considering replacing our gas dryer with an electric one to take further advantage of the wind blowing across our property.

At the time I installed my small wind turbine on my two-and-a-half-acre property, San Bernardino County zoning restrictions limited the tower height to 60 feet. (For properties of five or more acres, the limit is set at 80 feet.) Because county setback requirements prevented me from installing the turbine tower on higher ground near the edge of my lot, I could use the extra 20 feet in tower height. I'm still hoping that the county will change the height restriction and I can generate even more electricity from the wind. Based on the experience of other wind turbine owners in the nearby area, raising my small wind turbine from 60 to 80 feet off the ground could improve energy output by as much as 25 percent.

With or without the extra 20 feet, I am extremely happy with my small wind turbine. It has already accomplished everything I've wanted it to – and then some. America pioneered this renewable technology in the 1920s when farmers not connected to the power grid attached generators to what used to be simple water-pumping windmills. Unlike utility-scale large wind turbines or solar photovoltaic panels, small wind turbines are the one renewable energy technology that the United States still dominates.

My experience proves that small wind turbines can reduce power costs. They do not harm the environment and are an ideal solution to California's power supply challenges. Taking personal responsibility for my family's electricity needs has been one of the most rewarding experiences I ever had. I urge those who used to curse the wind to investigate transforming this fuel into clean electricity for your own home or business.