



Homespun Energy

Four Winds Renewable Energy's Roy Butler Powers His Life in the Windy Hills

By Angela Cannon-Crothers

Roy Butler is a wind-power expert who practices what he preaches. He lives off the grid with a small wind turbine and solar photovoltaic (PV) system, proudly helping his budget and the environment—and living with the consequences.

When the wind blows, he's right there to catch it. When it's calm, he catches grief from his children, especially when their bedrooms go without electricity—which doesn't happen as often now that he has a solar PV array to rely on.

"I don't recommend that for everyone," he says with a grin. Most of his clients like electricity in their bedrooms at all times—and Butler happily supplies it with wind power.

Butler operates Four Winds Renewable Energy in Arkport, New York, a business that got off to a steady spin in 1997. Butler, who has been promoting and installing renewable energy systems for more than seventeen years, is a nationally requested speaker on wind and solar electric systems. He teaches training courses for the Mohawk Valley Community College in Utica, New York, and Alfred School of Technology in Wellsville, New York. He also serves as a technical editor for *Home Power* magazine.

Back when he first got into renewable energy, the family electric bills were topping \$400 a month, so he and his wife, Carol, put up their own wind turbine and disconnected entirely from the grid. They knew the system was too small to meet their needs, but they planned to install additional capacity as they could afford it.

"We went cold turkey," laughs his wife. "The kids were so mad."

One of the first things the family learned was that in order to meet their energy needs entirely with one small residential turbine, they were going to have to greatly downsize their energy use. No more old energy-sucking refrigerator and doing

the wash on non-windy days.

"We don't recommend doing it this way for just anyone," says Butler. "Most residential wind electric systems are on-grid and utility interactive so you don't use a battery bank to store your power, and you don't have to worry about using electricity when the wind's not blowing."

Butler says there are two basic types of wind electric system buyers out there today: those who want to reduce their consumption and impact on the environment and "a whole new generation of buyers who put up renewable energy systems as part of their home improvement." Many states now have incentive programs that help reduce the cost of installing wind or solar PV systems. Pennsylvania has the Sunshine Program solar PV and solar thermal systems. New York has the NYSERDA solar PV and wind incentive program. These incentives, together with state and federal tax credits, go a long way toward making renewable energy systems more affordable than they have ever been.

"One of the other great incentives for putting in wind (if you have a windy site) or photovoltaic systems, is that you end up locking in your energy costs with today's dollar value, providing a hedge against inflation," says Butler. "Because you're connected to the grid and essentially making energy for others during over-peak production times, when the utility company rates go up, the value of your energy production does, too."

Getting a system put in at your home or office takes some study and a lot of paperwork, but it's worth it. "I have a customer who was homeschooling their kids, and we estimated that a renewable energy system would cut 68% off their projected electric bill. They were so excited when their savings ended up being closer to 75%, that the kids got involved in researching how to cut it back even more with conservation measures. Right

now they have their electric needs down to only 7–8% grid use, and they are hoping to get to zero."

Butler has had an interest in alternative energy since boyhood. Back in 1968, when he was just thirteen years old, he designed and built his own AM radio for broadcasting. But the remote location where he kept his radio station hidden was requiring more batteries than a young teen could afford. So Butler rigged up a solar power system for his radio. In high school he got into alternative fuel generation by powering an old Briggs and Stratton engine off methane made from school lunch leftovers, which, he says, "was easier to come by than manure—at least until the lunch ladies found out what I was doing and wouldn't give me any more seconds."

Carol and Butler use, install, and promote small wind turbines of 100 kilowatts or less, but they've had their share of fallout from people opposed to industrial turbines. "People see our Four Winds Renewable energy sign on the truck and want to express themselves," says Carol. "Sometimes, even after we tell them that that's not what we do, they still keep going on."

But the Butlers aren't opposed to the industrial turbines topping many of the hilltops in the area. Butler sees that America's energy solution will require a mix of options from wind and solar to natural gas and coal—even nuclear energy.

"We need to intensely research our alternatives," says Butler. The first thing he believes anyone can do, right now, is to simply practice energy conservation. "Conservation has immediate benefits," says Butler. "And conserving energy doesn't cost you anything," adds Carol. Butler nods, "Of course, I also love the fact that renewable energy is good for the environment." 🏠

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