

# Homeowners, small businesses install turbines to cut long-term energy costs

April 25 2009, By Carolyn Starks

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Steve and Sue Kirkham's home sits atop a hill where the wind can be strong enough to mute conversations and rattle lawn chairs. Instead of complaining, they decided to harness its power.

The Harvard, Ill., couple is installing a small wind turbine on their property -- a 34-foot-tall modern-day windmill that they say will make them a bit more [energy](#) self-reliant and they hope will save them money.

"It's primarily to reduce our [electric bills](#) long term and to do something good for the environment," Steve Kirkham, 52, said. "We have all this wind up here, we might as well utilize it."

Residential [wind turbines](#) are becoming a larger part of the renewable energy picture, and more homeowners are harnessing the wind to help them reduce [energy costs](#). The small turbines also are being purchased by some small businesses and schools.

Rhodes School in west suburban River Grove, Ill., installed a wind turbine April 9, as a teaching tool and to conserve energy, said John Mertes, director of technology for Rhodes School District 84. He said he believes Rhodes is the first urban school in the state to install a small turbine. It is expected to generate 400 kilowatt hours of electricity a month, which is about half the energy needs of a small household.

In about two weeks, Chicago will host the 2009 Windpower Conference & Exhibition, which is the world's largest annual wind energy event and

is sponsored by the American Wind Energy Association. The association said Illinois is ranked eighth among the states in the number of wind turbines installed.

New federal incentives also are spurring interest, energy experts say.

For 2008, homeowners could claim a federal tax credit for 30 percent of the cost of a wind turbine, though the credit was capped at about \$4,000. The stimulus bill that President Barack Obama signed in February removed the caps.

Depending on the size, the cost of buying and installing a turbine ranges from \$14,000 to \$20,000, experts say.

"We've definitely seen an interest for small wind turbines, especially in Illinois, which is a great place for wind especially as you move further away from the city and get a lot of open land," said Miriam Robbins, marketing director for Southwest Windpower in Flagstaff, Ariz., the largest producer of small wind turbines in the country.

The company began manufacturing small wind turbines in late 2006. They've sold more than 3,500 nationally, Robbins said.

Most turbines need at least 10-m.p.h. winds to be efficient, which is what the Kirkhams say they have in rural Harvard. Their [electricity](#) bill has been going up about \$300 a year -- to about \$1,500 in 2007 -- and they hope their investment -- just under \$20,000 -- will pay off.

The turbine is expected to generate 40 to 90 percent of their power needs, said Ray O'Connor, the McHenry County electrician who installed it.

Any extra energy that the Kirkhams' turbine produces will be fed back to

Commonwealth Edison. When this happens, ComEd will keep track of the amount of power and provide a credit to reduce any future energy draws.

Last year, Ivanhoe Nursery near Mundelein, Ill., had a 100-foot-tall wind turbine installed to augment solar energy panels, which generate energy for the 400-acre farm.

"We got great tax incentives," said farm manager Tony Zimmerman. "Ours is much larger than what a homeowner would get, but I would say it is generating 15 to 20 percent of our energy needs. But it is fairly new. We'll have to wait and see."

Troy Rudy said his company, Northern Illinois Wind Power in Freeport, Ill., has installed 19 residential and small-business turbines in seven counties. He has sold five this year, and next month will put one in the Smart Home exhibit at the Museum of Science and Industry.

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