



Individual Wind Turbines Powering Rural Texas Homes

article and photos by **Ralph Winingham**

A wooden windmill slowly creaking in the wind as it fills a water trough is one of those timeless images that once was commonplace at homesteads, farms and ranches throughout Texas.

In the old days, the people who relied on wind power to handle some of their daily tasks did not consider themselves “green” or environmentalists trying to save the planet. They were just independent-minded landowners looking for some help from Mother Nature as they tried to scratch out an existence in what could be an unforgiving countryside.

Fast forward to the current times, and there is a new group of landowners who are turning to wind to help them get by, only this time the tools for putting the wind to use are individual wind turbines.

“I was looking to be “green,”



Kevin Christiansen of RePower Engery checks out the blades of a wind turbine he prepares for installation at a Kerrville home where the owner was looking for independence from utility companies.

replace some energy we use and save some money at the same time,” said Slim Crapps, a Hondo rancher and deer breeder who has lived in Medina County for the past 35 years.

“All you see on the television is wind turbines – everybody seems to be talking about them, so I thought I

would give them a try,” said Crapps, who had two of the 45-foot tall wind turbines installed on each of his two pieces of property about two years ago.

The Texas Wildlife Association member and landowner said he is saving about \$150 per unit per month by supplementing his electric service





Using a winch and cable, Kevin Christiansen of RePower Energy raises a wind turbine that will generate enough energy to save the property owner about \$100 to \$150 each month on his utility bill.



with the wind turbines that were installed by Hondo-based RePower Energy South Texas Ltd.

“A lot depends on the wind. During July and August when the wind doesn’t blow as much, we didn’t get as much savings,” Crapps said.

“They are providing power to our white-tailed deer trophy showroom, home, pool, and office building and are actually supplying more electricity than what I expected,” he added.



Small farm, ranch or hunting operations in rural areas such as Crapps’ deer breeding facility were just the type of property that can benefit from individual wind turbines, said Kevin Christiansen, owner of RePower Energy.

The turbines, supported by 10 feet of underground concrete and sitting on narrow towers from 33 to 45 feet tall, have blades 12 feet in diameter and cost about \$15,000 each.

In most cases, the turbines are

installed on a hill or other high spot on the property where they will catch the most wind during the day and night, but because of their size, the turbines do not dominate the landscape.

Nearly soundless compared to the massive 200-foot wind turbines found in the Amarillo area that are being used to generate some power to urban areas, the individual units are powered by winds of more than 8 miles per hour. As the turbines turn, they feed electric current into the customer’s home by means of underground cables. Any excess electric power is fed back into the community power grid through a “net meter,” and subtracts that energy from the home’s total usage.

“Part of the reason I got into this business was to do something good for the environment,” Christiansen said. “I’m not a raging environmentalist, and I grew up on a ranch.

“I have three kids and just started thinking about what their world was going to look like. A lot of this just goes back to common sense.

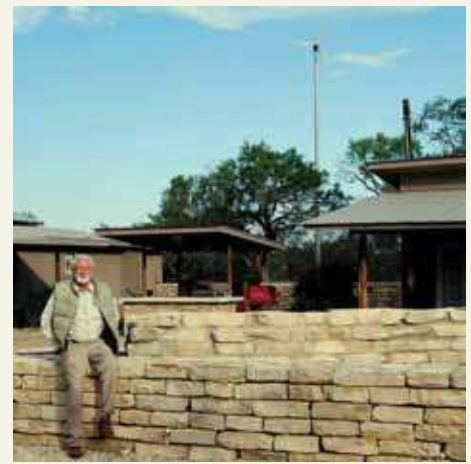
“The whole idea is to use less fossil fuel and to cut down on the kilowatts of energy that a farm or ranch is receiving from a utility company. Studies have shown that at a 2,000 square foot home, the savings could be from 40 to 80 percent,” he said.

Christiansen, who has been installing the wind turbines across the state for the past two years and has more than 50 customers in the Medina County area alone, said he selected a Skystream 3.7 turbine manufactured by Southwest Windpower of Flagstaff, AZ, as the product he believes provides the best service.

“The Skystreams are made in the U.S., and a lot of design thought went into them. The majority of my customers say that this being a very attractive system is a big selling point for them,” he said.

The turbines generate about 2,400 watts of energy and feature a computer system that wirelessly transmits data to the property owner to allow for the tracking of electricity production and can send out an alert if there are any problems. The turbine automatically shuts down if wind speeds reach 60 miles per hour.





Slim Crapps of Hondo had RePower Energy wind turbines installed at his ranch about two years ago and said he is happy with the savings he has been receiving with the alternate energy source.



Installed and anchored with a concrete base, the single property wind turbine installed by RePower Energy is designed to blend in with the landscape and serve as a money-saving alternative for ranchers or hunting camp owners.

In addition, owners of small wind systems with 100 kilowatts of capacity or less can receive a federal tax credit for 30 percent of the total installed cost of the system.

Christiansen estimates that one of his wind turbine units should pay for itself in six years after the tax benefit.

“Wind is an intermittent form of producing energy, the same as solar power, so there is really no way of determining how much energy they will produce. I don’t think anyone knows how much the wind is going to blow each day, and if the wind isn’t blowing, they won’t be generating any electricity.”

However, Christiansen pointed out that another selling point of the system is that any additional generation of electricity not used by the property owner, such as during the down time

at a hunting camp or ranch where the buildings are vacant, is credited to the property owner by the utility company.

“If there is no demand for the electricity, it passes back into the grid to be used by other homes. The meter actually spins backwards and the owner gets credit for not using the electricity,” he said.

While saving money has been an issue with many of the wind turbine customers, some like Don Lewis of Kerrville is more interested in another factor that dates back to the days of the first settlers of the Lone Star State.

“I have my own water collection system, and I am using solar panels. My ultimate goal is to eventually get off the utility grid,” said the retired Vietnam veteran.

“I’m not really going green, I just like being independent,” Lewis said. 🐾

