

# Ranchers EXCHANGE

June 2011  
Volume 19, No. 4

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Independent Cattlemen's Association of Texas'  
37th Annual Convention & Trade Show  
to be held June 22-24 in Galveston

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## Home-based Wind Turbines, A New Spin on Old Technology

by Ernie Altgelt

If there was one technological symbol representing modern man's earliest attempt to master his rural environment, it would have to be the ubiquitous "windmill."

Dotting the countryside across greater Texas, these oft-seen wood and metal sentinels (a few still providing service) nostalgically remind us of earlier times when the distant rancher or farmer relied on the natural gift of wind to coax water from deep underground reservoirs and provide other services.

As power lines eventually linked the open spaces of the state, however, demand for these

mechanical "workhorses" waned, seemingly relegating the personal harvesting of free wind to the scrap heap.

But, what goes around, comes around and, in today's more expensive energy environment a newer breed of the privately-held windmill is creating quite a stir as cost-conscious property owners (blown away by high utility bills) seek a cooling breath of economic relief.

These next-generation windmills (in actuality, small-scale wind turbines and not to be confused with the massive commercial models erected across West Texas) besides being an out-growth of the nation's desire to free itself from unreliable foreign oil sources and develop viable (non-pollut-

ing) energy alternatives were primarily developed to provide all or a portion of a private owner's energy requirements. Basically, any wind turbine is a device that collects kinetic energy from the wind and converts it to electricity that is compatible for public or private use. In most situations, the subsequent wind energy generated is normally combined with traditional access to electricity from a utility company.

Engineered for reliably high performance and employing state-of-the-art components many of these new units were designed specifically with the home/ ranch owner in mind. One Texas company that has been in the forefront of personal turbine promotion and installation is Hondo-based RePower Energy. Headed by entrepreneur Kevin Christiansen, RePower Energy has erected more than 75 of the free-standing generators across Central Texas during the past four years and continues to average about eight installations per month. While there are several manufacturers,

Kevin's company opted to use the American-made Skystream 3.7 turbine, an attractive, durable, quiet and affordable system that fits nicely in most residential or rural environments. Each unit is comprised of the tower-mounted turbine propelled by three six-foot, sweeping blades. Tower heights range from 45 to 70 feet and are engineered to withstand wind gusts of up to 140 miles per hour. Once up and running (and depending on wind conditions) a Skystream 3.7 can generate up to 2,400 watts of energy. As Kevin volunteers, "While the idea is to use less fossil fuel and to cut down on the kilowatts of energy that a farm, ranch or home is receiving from the utility company, what most customers appreciate are the 40 to 80 percent savings (based on a 2,000 square foot home's average usage) they can potentially realize."

RePower offers turnkey packages that include the turbine, tower, electrical connections and installation for between \$18,000 and \$25,000 (price varies depending on tower height, location and other factors).

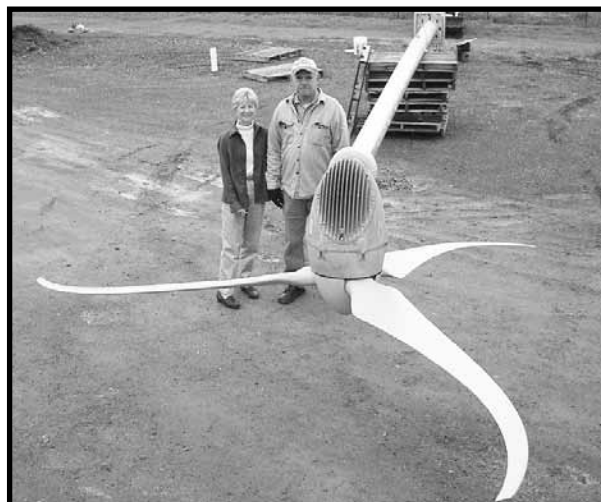
As an incentive, The

United States government also provides the buyer with a 30 percent federal tax credit based on the entire cost. Kevin estimates that, after the tax benefit, one of his units should pay for itself within six years. If the turbine is used for agricultural use, additional tax benefits are available.

But, will these new, high-tech "wind masters" ever become as commonplace across the Texas landscape as their more familiar forebears—who knows? As Kevin likes points out, however, "People that have these systems sure smile a lot on windy days!"



*The American made Skystream 3.7 turbine is easily erected.*



*Ray & Joyce Burton, at their place near Hondo, watch as RePower Energy installs their new wind turbine.*



*Two wind turbines erected on a South Texas Ranch.*

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