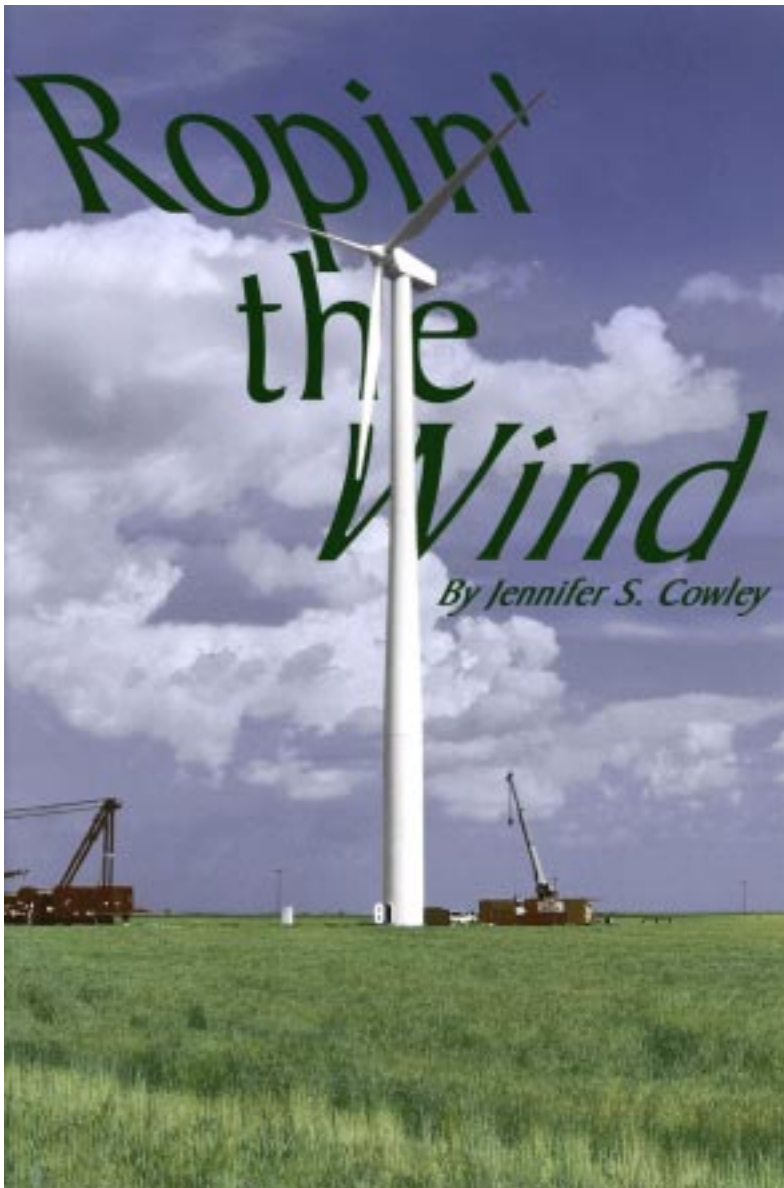


A Reprint from *Tierra Grande*, the Real Estate Center Journal



One answer to the United States' steadily increasing energy needs is blowing in the wind, literally. One of the oldest forms of power known to humankind — wind power — is gaining popularity as a means of generating electricity here and across the nation. The untapped potential of this power source is estimated at two million megawatts per year nationwide.

Texas is one of the best regions in the United States for harnessing wind power. Data gathered at National Weather Service stations across the state over a 10- to 12-year period estimate capturable wind power in Texas at 250,000 megawatts per year. This represents about five times the existing electrical generating capacity in Texas or the annual energy equivalent of 1.3 billion barrels of crude oil. Two hundred megawatts of power is sufficient to serve 650,000 homes for a year.

Less than one-half of 1 percent of Texas power currently comes from renewable sources such as wind, according to the U.S. Department of Energy. However, deregulation of electric utilities is prompting new legislation encouraging use of wind

generation. By 2009, 2000 megawatts of all utility companies' generating capacity must come from renewable resources such as wind and solar power. The Public Utility Commission will establish a minimum annual renewable energy requirement for each electric provider. The state of Texas allows tax deductions on a company's taxable capital if renewable resources are used to generate power.

The federal government, too, is committed to increasing the amount of energy produced by wind to 5 percent of total production by 2020. A federal law providing an extension of a 1.5-cent tax cut for every wind kilowatt hour produced was passed in December 1999.

The cost of wind-generated electricity has dropped dramatically since 1980, when the cost of wind production was 40 cents per kilowatt hour. Today the cost is estimated at five cents per kilowatt hour. By comparison, a state-of-the-art natural gas plant can produce power at 3.5 cents per kilowatt hour.

Roughly 40 percent of the state's wind power potential is in the Panhandle and another 10 percent along the Gulf Coast, according to the Alternative Energy Institute at West Texas A&M University. Four wind power plants were built in Texas between 1995 and 1999, generating a total of 186.9 megawatts of power annually. Six additional projects were announced in 2000, with the potential to generate an additional 512.5 megawatts of power. All of these projects are located in West Texas.

TXU Electric & Gas is teaming up with FPL Energy to build and operate 242 wind turbines in West Texas to produce 160 megawatts of power. Currently, 15 percent of FPL's energy production is in wind power. Reliant plans to build 160 wind turbines that will generate more than 200 megawatts of power.

Cielo Wind Power Company, in conjunction with Renewable Energy Systems (RES), plans to invest \$150

Company	Megawatts
TXU/LCRA	82.5
TXU	160
Reliant Energy/Austin Energy	200
Austin Energy	20
City Public Service of San Antonio	25
Southwestern Public Service Co. of Amarillo	25
Total	512.5

Source: Comptroller's State Energy Conservation Office

million in King Mountain Wind Ranch, located south of Odessa, near McCamey. When completed, the project will be the largest wind farm in the world, with 160 wind turbines generating more than 200 megawatts of power annually. The project is expected to be operational by fall 2001.

Cielo and RES are also assisting Austin Energy in developing and operating a second wind farm at the same site. Reliant Energy plans to purchase electricity generated on King Mountain by fourth quarter 2001.

The tallest wind turbines in North America are at a 41-megawatt TXU project in Big Spring. TXU and the Lower Colorado River Authority are planning an 82.5-megawatt project in Pecos County.

What will wind-generated power mean for Texas consumers? It may mean lower cost electricity and less pollution. Austin Energy has a GreenChoice program that allows customers to specify that they want their power to come from wind generation. This locks in a "green power" charge that replaces the standard fuel charge. When natural gas prices increased this year, the higher cost was passed on to Austin Energy customers who had not opted for the GreenChoice program.

Use of renewable resources is likely to be increasingly mandated at the federal and state levels in the future and may ultimately be seen as a positive side effect of the deregulation of electric utilities. ♣

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*Dr. Cowley is an assistant research scientist with the Real Estate Center at Texas A&M University. Her e-mail address is jcowley@recenter.tamu.edu.*

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