

Renewable Energy and Electric Utilities



RENEWABLE ENERGY
THE INFINITE POWER
OF TEXAS

HIGHLIGHTS

- **The Texas electric industry is changing**
- **Texas is becoming a leader in renewable energy development**
- **Customers now have electric provider choices**

INTRODUCTION

Due to a set of laws and rules changing how power is bought and sold in Texas, we now have a system of competitive and choice-driven electric companies, much like telephone service, in which you can choose and change your supplier. Texas law required big, publicly owned electric utilities, such as those in Dallas and Houston, to open their markets in 2002. Rural electric cooperatives and municipal utilities, such as those owned by Austin and San Antonio, were not required to open their market base to competition, but may choose to do so in the future. The outcome is more choices for more customers, including the ability to choose energy generated from the state's clean,

renewable energy resources like wind, solar and biomass power.

NEW RULES CATAPULT RENEWABLES

Renewable Portfolio Standard (RPS)

The law that defined the new electric structure for Texas requires that all electric service providers sell a minimum amount of renewable energy. The law requires that



SOURCE: LLOYD HERZIGER

CLEAN, LOW COST ELECTRICITY FOR TEXAS *Wind farms similar to this one in the west Texas mountains near Van Horn could become a major source of home-grown power in the future.*

Baseline Capacity when law passed, 1999		880 MW
New Capacity Targets:		
Deadline	Increment	Cum. Total
By 2003	400 MW	1,280 MW
By 2005	450 MW	1,730 MW
By 2007	550 MW	2,280 MW
By 2009	600 MW	2,880 MW

PROJECTED INCREASES IN NEW RENEWABLE ENERGY POWER PLANTS THROUGH 2009

The Texas Renewable Portfolio Standard provides targets for installing new renewable power plants that will increase the state's total renewable generating capacity from 800 MW in 1999 to 2,880 MW by 2009.

2,000 megawatts (MW) of new renewable generating capacity be installed by 2009 and added to the 880 MW already in Texas at the time the law was passed in 1999. This concept is called a "Renewable Portfolio Standard," and while Texas was only the 6th state to adopt such a rule, its RPS is shaping up to be the most effective one to date.

Renewable Energy Credits (RECs)

The cornerstone of the new Texas rules is the ingenious yet simple creation of a tradable certificate called a Renewable Energy Credit. Renewable energy generation projects certified in the state create one (1) REC per megawatt hour (MWh) of electricity produced.

On an annual basis, every Retail Electric Provider (REP) selling electricity in the

competitive areas of the state must show that it has purchased its share of the required renewable energy generation. That share will be determined by prorating the required benchmarks for renewable energy generating capacity based on the company's share of the electricity market. The REP will prove it is meeting its MW capacity benchmarks by the number of RECs it possesses.

The demand for RECs will result in the building of new renewable energy projects, thereby displacing electricity that would otherwise be generated from traditional resources. The kilowatt hour (kWh) of renewable electricity is not tied to the REC. Each may be sold separately. Claims of renewable energy use in Texas will depend

solely on ownership of RECs and not where the commodity energy flows.

This market-based system has been extraordinary in stimulating the Texas renewable energy market. During 2001 as much renewable energy generating capacity came on-line in the state as during the previous 100 years. That is quite a success story! And because of the large volume of new construction, renewable energy has become more affordable, leading to more opportunities for customers wanting cleaner electricity.

RENEWABLES FOR ELECTRIC CONSUMERS

It is important to understand just what energy resources are included in any “Green Power” product offered by an electricity marketer. In Texas, only a reference to the term “renewable energy” in such marketing is a reference to those resources clearly defined as renewable in the electric utility restructuring law. This would include electricity generated from solar, wind, biomass, geothermal and hydro resources, and clearly excludes any fossil-based resources. Other power products using Texas natural gas resources can still be marketed as “green” due to the low emissions associated with natural gas power plants.

Some companies specialize in selling 100% renewable power with reliability that is identical to what customers are used to. Others offer power with various

percentages of renewable energy. In some cases they offer renewable power contracts at fixed rates, while rates for conventional electricity rise and fall with fossil fuel prices.

It is exciting that Texas has become the nation’s best wholesale market for renewable energy, and it will be interesting to see how Texas customers continue to respond at the retail level for cleaner electricity.

What to look for in the electricity you buy:

All retail electric providers are required to disclose certain information enabling customers to make educated decisions about choosing among competing offers. Here are some important characteristics to consider:

1. Types of renewables
2. Content of new renewable energy
3. Emissions impact
4. Other factors important to you, such as fixed price, company contributions to environmental causes, use of union labor, etc.

ORGANIZATIONS

Public Utility Commission of Texas
(PUC) Consumer Assistance Hotline
(512) 936-7120 or (888) 782-8477
www.puc.state.tx.us

Environmental Defense
44 East Avenue, Suite 304
Austin, TX 78701
(512) 478-5161
www.environmentaldefense.org

Public Citizen of Texas
2812 Hemphill Park
Austin, TX 78705
(512) 477-1155
www.citizen.org/cmep

Consumer's Union
1300 Guadalupe, Ste.100
Austin, TX 78701
(512) 477-4431
www.consumersunion.org

RESOURCES

FREE TEXAS RENEWABLE ENERGY INFORMATION

For more information on how you can put Texas' abundant renewable energy resources to use in your home or business, visit our website at www.InfinitePower.org or call us at 1-800-531-5441 ext 31796. Ask about our free Teacher Resource Guides and CD available to teachers and home schoolers.

ON THE WORLD WIDE WEB:

The Green-e Renewable Electricity Certification Program is a way for customers to easily identify "green" electricity products in order to encourage consumer confidence in buying "green" electricity. Green-e is the nation's first voluntary certification and verification program for "green" electricity products.
www.green-e.org/

Good information on green power marketing and utility renewable energy programs.
www.eere.energy.gov/greenpower/

www.ucsusa.org/clean_energy/renewable_energy_basics/buy-green-power.html

Information on renewable energy generation capacity connected to the utility grid, covering all renewable energy technologies.
www.eere.energy.gov/de/cs_renewable_energy.html

The Electric Reliability Council of Texas answers questions specifically about renewable energy in Texas (www.ercot.com/about/index.html).
Look for a link to www.TexasRenewables.com on their page.

The Environmental Defense's web site includes a beginner's guide to buying green electricity, a green product-by-product comparison chart, an interactive Electricity Label Generator that calculates the potential environmental impacts of electricity used, and other discussions on solar energy.
www.environmentaldefense.org/home.cfm

Interstate Renewable Energy Council
PO Box 1156
Latham, New York 12110-1156
(518) 458-6059
info@irecusa.org
www.irecusa.org

ERCOT Austin
7620 Metro Center Drive
Austin, Texas 78744
(512) 225-7000
www.TexasRenewables.com

The Environmental Protection Agency's Toxic Release Inventory and the Environmental Defense Fund's Scorecard allow citizens to find what pollutants are in their communities, including those from electric generation, and the specific sources of those pollutants.
www.epa.gov/tri/
www.scorecard.org/

Renewable Energy Roundup and Sustainability Fair. An annual event in Texas that provides renewable energy booths, seminars and workshops.
www.RenewableEnergyRoundup.com



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