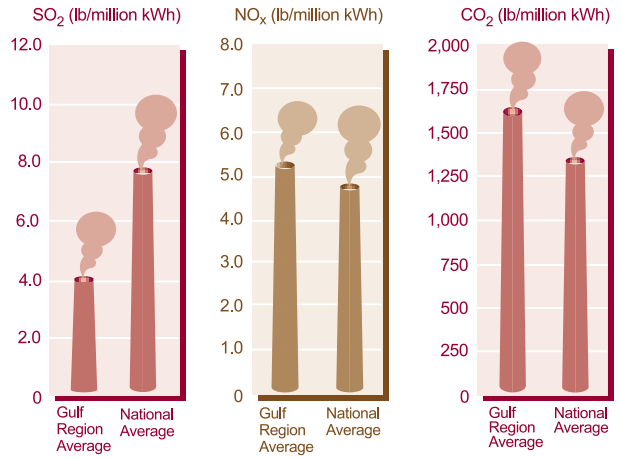
The Gulf Region

Louisiana, Oklahoma, Texas

A Reliance on Natural Gas

The Gulf region produces nearly 70 percent of the United States' natural gas and 33 percent of our domestic oil. Not surprisingly, nearly two-thirds of the Gulf region's generating capacity is fueled by natural gas, supplying almost half of its electricity. The prominent role of natural gas in this region is expected to continue. Over the next decade, utilities in the Gulf region plan to add 8,000 megawatts of capacity, two thirds of which will be gas-fired plants.

Although the Gulf region's natural gas use is increasing, its natural gas production is not. From a peak production of about 18.5 trillion cubic feet of natural gas in 1973, the Gulf region's production is now down to 13.2 trillion cubic feet, and holding steady at that level.

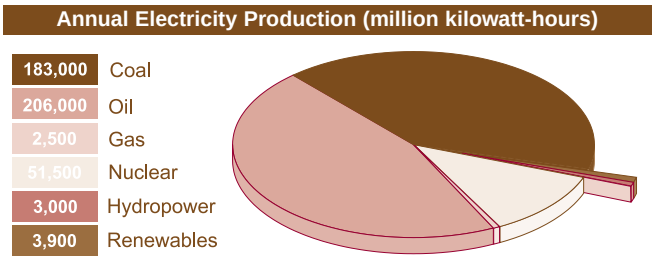


Power plants in the Gulf produce 8 percent more nitrogen oxides and 23 percent more carbon dioxide per kilowatt-hour of electricity generated than those in the rest of the nation, although the use of natural gas for much of the generation capacity results in sulfur dioxide emissions that are 48 percent lower than the national average.

The Gulf region has several large renewable energy resources that can help diversify its energy portfolio. Texas, for example, has a wind energy potential estimated at nearly 525,000 megawatts—far more than the area would ever actually need. Solar resources in the region are also enormous, ranking very close to the Southwest in daily average solar radiation received. Because the Gulf region is one of the nation's major producers of agricultural and forest products, it has a significant biomass energy resource.

Building Renewables in Texas

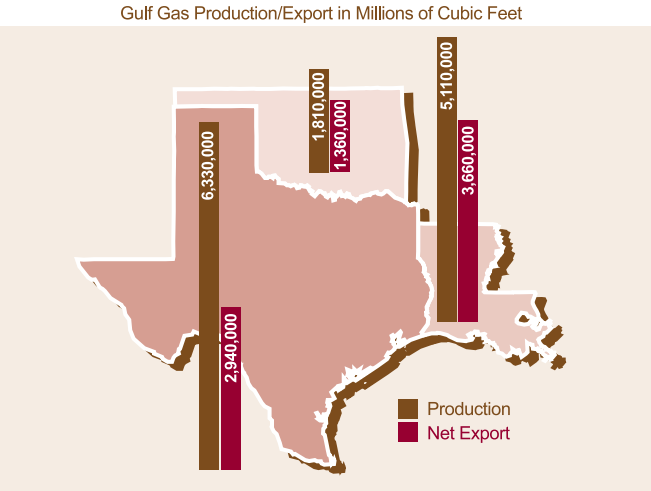
Recognizing this potential, several Texas utilities are exploring renewable energy opportunities. Four Texas utilities—Lower Colorado River Authority, TXU (formerly Texas Utilities Electric), Reliant Energy HL&P, and Central and South West Corporation—are starting to exploit the state's wind and solar resources. In addition, the City of Austin's municipal utility (Austin Energy) has been a pioneer in photovoltaics system applications. These activities have laid the groundwork for an RPS that will result in 2,000 megawatts of new renewable capacity which will be added in Texas by 2009 under the state's 1999 Electricity Restructuring Law.



In 1996, coal and natural gas dominated the production of electricity in the Gulf. All other sources of energy combined produce only 14 percent of the region's electricity.

Lower Colorado River Authority

By bringing a 35-megawatt wind project on line in 1995, the Lower Colorado River Authority became the first utility in Texas to commercially exploit wind for electricity. The City of Austin has a 25-year agreement with the Lower Colorado River Authority to purchase a 10-megawatt share in the project, at a price competitive with electricity generation from fossil fuels.



Although a large producer of natural gas, the Gulf region now uses as much natural gas as it exports — and demand is growing. Utilities in the Gulf plan to add more than 5,000 megawatts of gas-fired power plants in the next decade.

TXU

In 1995, TXU launched a broad-based initiative to diversify its energy supply resource base and buffer itself against future price increases or changing environmental standards. The utility committed itself to the future use of wind and other renewables. In 1999, a 35-megawatt wind plant came on-line at Big Springs, Texas. TXU has also built an Energy Park near the Dallas/Fort Worth International Airport. This facility is providing vital hands-on experience with advanced technologies. The site has an innovative Fresnel lens, concentrating cell photovoltaic system producing 100 kilowatts in peak sunlight. It also has three 300-kilowatt wind turbines producing 800,000 kilowatt-hours of electricity annually in moderate winds. The utility has found the Energy Park to be an excellent means of teaching employees and customers about renewable energy.

Reliant Energy HL&P

Reliant Energy HL&P is buying power from a 22.5-megawatt windfarm to supply its customers. The utility's purchase is a response to their customers' preference to have renewable energy meet a greater portion of future energy needs.

Central and South West Corporation

Central and South West Corporation (CSW) is pursuing renewable energy because it believes that renewables will be an important service offering for customers in a more competitive electric market. CSW is offering the "Clear Choice" green pricing program to its residential customers. Participants subscribe to fixed monthly blocks of electricity and pay a premium of 2 cents/kilowatt-hour.

The utility installed 6.5 megawatts of wind power in late 1995 near Ft. Davis. Through the summer of 1998, the wind plant's twelve turbines had generated some 30 million kilowatt-hours of electricity. Based in part on the experience gained with this facility, CSW signed a power purchase agreement for the output of a 75-megawatt wind plant that was completed in mid-1999. Nearby, at its Solar Park, CSW has installed three photovoltaic systems — a 100-kilowatt flat plate system, an 85-kilowatt linear Fresnel lens system, and a high concentrating, dual-axis tracking system that concentrates the sun to 200 times and generates 18 kilowatts.

Austin Energy

In 1998, Austin Energy dedicated the first photovoltaic power system constructed under the Austin Energy Solar Explorer program. The photovoltaics system is a 32-kilowatt installation, which provides shaded parking for about 40 vehicles while generating power for Austin's power grid. The Solar Explorer program has 1,000 members that are Austin residents and sponsor one or more 50-watt "blocks" for as little as $3.50 per month. Austin Energy recently issued a Request for Proposals for 100 megawatts of additional renewables.

Texas Utility Responds to Customer Desires for "Green Power"

Central and South West Corporation has established a renewables target program that will deploy 40 to 50 megawatts of renewable energy resources. The utility commitment is a result of an elaborate customer polling process that was conducted by its three retail utility subsidiaries during 1996. Using a Deliberative Polling™ technique, a random sample of customers was gathered together for extensive education on the utility resource planning process to help them develop a truly informed, deliberated opinion.

Customers overwhelmingly determined that a mix of energy resource options was the preferred way to accomplish several objectives including low cost, reliability, environmental quality, and further development of renewable resources. Because of this strong customer interest, the CSW companies have each instituted targeted purchase goals for renewable energy and energy-efficiency resources.

The targets are based on acquiring resources with a net rate impact of an additional 25 cents per month for an average residential customer. More than 80 percent of customers indicated a willingness to pay at least $1 more per month for the companies to acquire more renewable resources, and there were blocks of customers who indicated a willingness to pay as much as $10 more per month.

Polling participants also voiced a desire for their children to learn more about environmentally beneficial electricity generation. For this reason, the CSW companies have a pilot program for the installation of 50 rooftop solar photovoltaic systems at schools, accompanied by classroom materials for teaching students about the installations.

Central and South West Services