



Generation Fuel Diversity Reducing Dependence on Natural Gas in ERCOT

Reliable electric service is a direct result of efficiently utilizing many fuel resources—natural gas, coal, lignite, nuclear and wind—to generate electricity. Because Texas companies can access many different fuels, reliable electric power will be available in Texas well into the future.

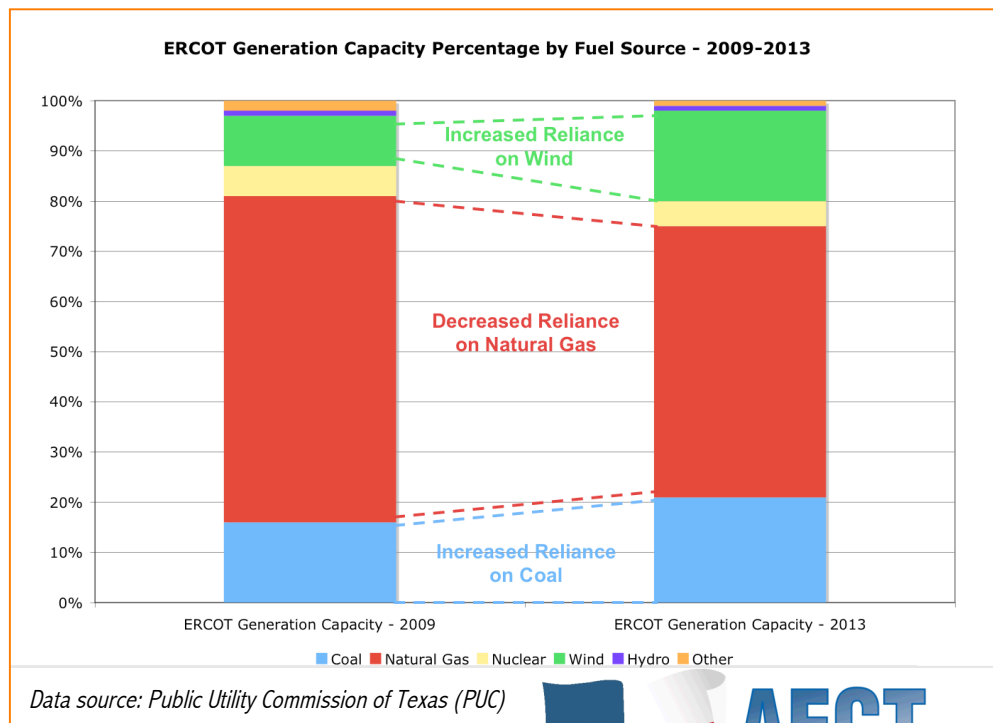
Texas' Regulatory Framework Bringing Continued Investment

Since the passage of electric choice legislation 11 years ago, Texas generators have invested \$36.5 billion to bring over 41,000 MW of new generation online to meet our state's growing needs. The generation technology mix is an outcome of a robust competitive wholesale market and environmental policy decisions. In addition to the price of fuels and the cost of technology, environmental and siting issues impact choices made by generation developers.

The existing framework of Texas' competitive wholesale electric market has helped lead generators to invest in and announce plans for over 27,000 MW of new generation, including natural gas, coal, nuclear and renewable power.

Fuel Mix Changing in Texas

Texas' competitive wholesale market has brought about the growth of electricity fueled by renewable resources, as well as plans for new coal and nuclear-powered generation. In fact, the Public Utility Commission of Texas (PUC) estimated the installation of 18,000 MW of wind, 5,600 MW of coal and 4,300 MW of natural gas plants between 2009 and 2013 in the Electric Reliability



Council of Texas (ERCOT) region, which serves about 85 percent of Texas' electric load. As shown, the amount of generation capacity available from natural gas-fueled power plants in ERCOT is expected to fall from 65% to 54%. This represents the available natural gas resource.

By maintaining a diverse portfolio of power plants utilizing a mixture of fuel, Texas electric companies have been able to better protect consumers from dramatic price fluctuations experienced when the price for one fuel—natural gas for example—suddenly spikes. When natural gas prices push wholesale power and retail electricity prices up, the increase does cause a dollar-for-dollar increase in electric prices.

Impacting Marginal Costs

In ERCOT today, some natural gas-fueled generation must operate at all times in order to meet consumers' electric load—even during mild spring or autumn nights, when usage is lowest.

In a competitive market, the “spot” market price of electricity is determined at the point where supply equals demand. The last plant dispatched to meet load is referred to as the “marginal unit.” The efficiency of this “marginal unit” determines the market price for electricity. In ERCOT, the marginal unit is almost always a natural gas fired generating facility. Therefore, the market price will be generally based on the price of natural gas and the efficiency of the marginal gas unit. While about 93 percent of electricity in ERCOT is purchased through bilateral contracts, rather than the “spot” market, the marginal cost of electricity can impact wholesale prices.

Thus, balancing ERCOT's fuel mix is key to mitigating that impact and reducing the retail electric price fluctuations that can occur due to natural gas price volatility.

