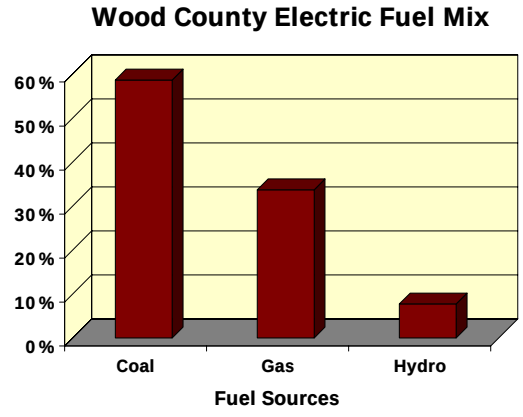
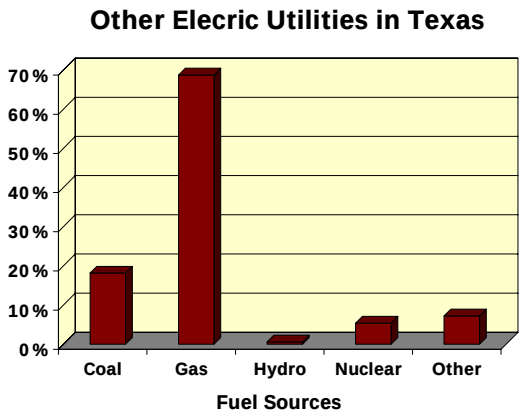
Comparison of Fuel Sources used to Generate Electricity

Wood County Electric Cooperative vs. Other Electric Utilities in Texas





Summary of Data

Displayed in the bar graphs above is a comparison of the fuel sources used to generate electricity for Wood County Electric Cooperative and other utilities in Texas. The information below gives a more detailed breakdown of the percentages.

Wood County Electric Cooperative

Fuel Sources	*Percentage of Fuel Used*
Coal	58
Gas	34
Hydroelectric	8

Other Electric Utilities in Texas

Fuel Sources	*Percentage of Fuel Used*
Coal	18.1
Gas	68.7
Hydroelectric	0.6
Nuclear	5.4
Other	7.2

Balanced Power

The management at Wood County Electric Cooperative (WCEC) is dedicated to providing members with reliable and affordable electric power, while addressing demand for renewable power production sources. Currently, as relayed by the above charts, WCEC is well ahead of the state average in using hydropower as a renewable source of energy.

Comparing the above data shows WCEC's hydro generation is 8% of the fuel mix, while the state average is only 0.6%. Thus, WCEC is currently using 13 times more hydroelectric power than the average utility. For East Texas, this is the green source with the greatest potential at the most affordable cost. That is why we are working with our Generation and Transmission (G&T) providers to bring online even more hydropower. Our G&T has applied for a permit to build a new hydro power plant on Lake Livingston, which will yield 26 MW.

In addition to hydropower, there are several other sources of renewable energy, but it must be noted that geography is always a prime factor in suitability. And, like hydropower, geography us is most important in determining if wind is a viable source of generation. There is much data from both our federal (Department of Energy (DOE), National Renewable Energy Laboratory) and state (Texas State Energy Conservation Office) governments regarding wind harvesting in our state and specifically East Texas. Wind resource is defined in terms of power classes, ranging from class 1 (the lowest) to class 7 (the highest). These classes are based on air density and speed at a given elevation. See: http://rredc.nrel.gov/wind/pubs/atlas/maps.html)

For Texas, the areas with the best potential for wind harvesting are the Great Plains, the Gulf Coast and the Trans-Pecos ridge tops and mountain passes. East Texas is considered a Class 1 with poor potential. The American Wind Energy Association, a national trade organization with the mission of promoting the use of wind energy, is in agreement with this assessment. Investment in wind harvesting equipment is very expensive and the payback for utilities in East Texas is considered extremely low.

While wind generation in Texas is growing by leaps and bounds, the challenge for East Texas remains getting it transmitted to us. Those of us in East Texas are in the Southwest power pool, where some windpower is being generated. However, that power must be used in the regions it's generated and can be transmitted to such as such as Oklahoma and Kansas. Transmission for this source is not currently in place for East Texas.

Solar energy is also increasing in popularity, yet, the technology still does remain quite expensive because generating large amounts of power require a big footprint, and concentrated solar power. The concentrated solar power potential for East Texas, with the current capture technology, does not allow a highly reliable source as shown on the DOE's website: http://www.eia.doe.gov/cneaf/solar.renewables/ilands/fig12.html.

It is important to note that even though WCEC's use of carbon-free hydropower is increasing, baseload generation powered by coal and natural gas will remain a necessity for the foreseeable future. Currently, renewables are simply not able to keep up with growing demand. Additionally, they are not always reliable. Lastly, cost constraints are also an issue with renewables.

At WCEC, we are concerned about our energy future, as well as the environment. As we secure future power sources, we must ensure costs don't cripple rural Texans or the U.S. economy. The ability to provide reliable and affordable electricity lies in a balanced approach and the ability to use a mix of energy sources, including nuclear, renewables, and fossil fuels like oil, natural gas and affordable and abundant coal. The issues are extremely complex; but one thing is clear. There must be a balance between energy affordability, reliance on foreign fuel sources and environmental responsibility.