

Energy Timeline

Rank	Year/Event	Sustainable	Renewable	Non-renewable	Direct use	Indirect use
	Energy Source: Coal					
	1674 - The first recorded coal in the United States was shown on a map prepared by Louis Joliet.					
	1701 - Coal was found in Richmond, Virginia.					
	1748 - First coal production in the United States began in Richmond, Virginia.					
	1769 - James Watt patented the modern-day steam engine. Coal was used to produce the steam.					
	1816 - Baltimore, Maryland became the first city to light streets with gas made from coal.					
	1875 - Coal coke replaced charcoal as the chief fuel for iron-blast furnaces.					
	1912 - The first self-contained breathing apparatus for mine rescue was used.					
	1940 - Surface mining with auger machines was introduced.					
	1950's - Most coal was now used by industry and homes were still heated with coal.					
	1972 -- Kentucky became the leading coal producing state.					
	1988 - Wyoming displaced Kentucky as the leading coal producer.					
	2005 - Congress passed the Energy Policy Act, promoting the use of coal through clean coal technologies.					
	Energy Source: Electricity					
	600 BC - Thales, a Greek, found that when amber was rubbed with silk, it became electrically charged and attracted objects.					

	1600- The term electricity was first coined by William Gilbert. He was the first person to use the terms electric force, magnetic pole and electric attraction.					
	1675- Stephen Gray (England) distinguished between conductors and nonconductors of electrical charges.					
	1752- Ben Franklin tied a key to a kite string during a thunderstorm and proved that static electricity and lightning were the same thing.					
	1800- Alessandro Volta (Italy) invented the first electric battery.					
	1826- Georg Ohm (Germany) defined the relationship between power, voltage, current and resistance in <i>Ohm's Law</i> .					
	1844- The electric telegraph was invented by Samuel Morse.					
	1876- The generator was invented.					
	1881- The electric streetcar was introduced.					
	1893- The Westinghouse Electric Company used AC current to light the Chicago World's Fair.					
	1903- the first power line was installed between the United States and Canada and was opened at Niagara Falls.					
	1913- The electric refrigerator was introduced.					
	1935- Some of the New Deal legislation passed during the Roosevelt Administration was designed to regulate public utilities and to bring electricity to rural America.					
	1942- Almost half of American farms had electricity, compared with 11 percent in 1932.					
	1973- The first personal computer was made available with 1K of memory.					
	1976- The first fiber optic cable was installed in Chicago.					
	2004- High-powered LEDs were introduced.					
	Energy Source: Ethanol					
	1826- Samuel Morey developed an engine that ran on ethanol and turpentine.					

	1860 -German engine inventor, Nicholas Otto, used ethanol to fuel one of his engines.					
	1860's - Ethanol is the major illuminating oil in all U.S. homes.					
	1862 - The Union Congress put a \$2 per gallon excise tax on ethanol to help pay for the Civil War.					
	1896 - Henry Ford built his first automobile, the quadricycle, to run on pure ethanol.					
	1908 - Henry Ford produced the Model T. As a flexible fuel vehicle, it could run on ethanol, gasoline or the combination of the two.					
	1920's - Gasoline became the motor fuel of choice. Standard Oil began adding ethanol to gasoline to increase the octane and reduce engine knocking.					
	1930's - Ethanol production for fuel use increased, due to a massive wartime increase in demand for fuel, but most of the increased demand for ethanol was for non-fuel wartime uses.					
	1945-1978 - World War II ended, with reduced need for war materials and with the low price of fuel, ethanol use as a fuel was drastically reduced. Virtually no commercial fuel ethanol was available anywhere in the United States.					
	1975 - United States starts to phase out lead in gasoline and ethanol becomes a more attractive option.					
	1980 - First U.S. survey was conducted on ethanol production. Survey found that fewer than 10 ethanol facilities existed.					
	1997 - Major U.S. auto manufacturers began mass production of flexible-fueled vehicles. These cars were capable of operating on the gasoline blend E85.					
	2005 - The Energy Independence and Security Act ensured gasoline sold in the United States contain a minimum volume of renewable fuel.					
	2008 - U.S. ethanol production reaches 7.2 billion gallons.					

	Energy Source: Hydropower					
	B.C. - Hydropower was used by the Greeks to turn water wheels to grind grains.					
	1880 - Hydropower was beginning to be used for electricity.					
	1881 - Street lamps in Niagara Falls were powered by hydropower.					
	1893 - The first U.S. dam was completed with the sole purpose of generating hydropower.					
	1936 - The Boulder Dam (later renamed the Hoover Dam) began operating on the Colorado River.					
	1949 - Almost 1/3 of the Nation's electricity came from hydropower.					
	2006 - The United States is ranked among the top four countries in the world for use of hydroelectric power usage.					
	2010 - Studies show that 6-10% of U.S. energy comes from hydropower.					
	Energy Source: Wind					
	500-900 A.D. - The first windmills were developed in Persia for pumping water and grinding grain.					
	1300 - the first horizontal windmill appeared in Western Europe.					
	1850's - The U.S. Wind Engine Company began and designed and marketed windmills to the American West.					
	1880 - Steel windmill blades were developed and made windmills more efficient.					
	1893 - The Chicago World's Fair highlighted 15 windmill companies and their products.					
	1900 - Windmills were used in California to pump saltwater to evaporated ponds to provide gold miners with salt.					
	1950 - Most windmill companies were going out of business.					
	1973 - The OPEC embargo on oil sparked renewed interest in other energy sources, such as wind energy.					

	1985- Windmill farms were popping up all over California to help meet the state's growing need for electricity.					
	2005- The Energy Policy Act strengthened incentives for wind and other renewable energy sources.					
	2007- Wind power provided 5% of the renewable energy used in the United States.					