

Electric Fact Sheet

The electric power industry is evolving from a highly regulated, monopolized industry with traditional electric utilities to a less regulated, more competitive industry. The United States electrical system is the largest in the world, with over twice the generating capacity of any other country.

Steam-electric generating units burn fossil fuels, such as coal, natural gas, and petroleum. Coal was used to generate the largest share (49.7 %) of electricity in 2005 2,013 billion kilowatt-hours (kWh). This is over one and a half times the annual electricity consumption of all U.S. residential households. Natural gas was used to generate 758 billion kWh (18.7 %), and petroleum accounted for 123 billion kWh (3.0 %). New plants will be built to replace older plants that are expected to be retired. By 2030, a total of 65 thousand megawatts of capacity is expected to be retired, virtually all fossil fired. According to the EIA, about eight percent of the expected capacity expansion consists of renewable generating units and two percent of nuclear. Organizations such as the Energy Advocates ask consumers of all types to take an active interest in how America replaces this retired capacity.

Did you know this about electric power?

Production

Total electric power industry generation in 2005 was 4,055 billion kWh

2004's total was 3,971 billion kWh

In 2005, approximately 40 quadrillion btu (quads) of energy were used to generate electricity.

The industry added about 18 thousand megawatts of net new capacity (new generators) in 2005, slightly less than the amount in 2004, and less than half the amount in 2003.

Eighty-four percent of the new unit capacity was natural gas-fired

Coal-fired capacity is generally more economical to operate than natural gas-fired capacity, because coal prices are considerably lower than natural gas prices.

Consumption

Residential sales of 1,359,227 million kWh accounted for about 37 percent of total sales by the electric power industry

Sales to commercial consumers were 1,275,079 million kWh, about 35 percent of total sales in 2005

Sales to industry in 2005 of 1,019,156 million kWh accounted for about 28% of total sales

Sources

Nearly 50 percent of the US's electricity in 2005 came from coal

Nuclear-powered generating units 19.3 percent.

Natural gas accounted for nearly 19 percent

Hydroelectric power units produce 6.5 percent

Other renewable and non-conventional sources of electricity generated about 2.7 percent

of the United State's electricity

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