



## Frequently Asked Questions

### What is U.S. electricity generation by energy source?

In 2016, about 4.08 trillion kilowatthours (kWh) of electricity<sup>1</sup> were generated at utility-scale facilities in the United States.<sup>2</sup> About 65% of this electricity generation was from fossil fuels (coal, natural gas, petroleum, and other gases), about 20% was from nuclear energy, and about 15% was from renewable energy sources. The U.S. Energy Information Administration (EIA) estimates that an additional 19 billion kWh (or about 0.02 trillion kWh) of electricity generation was from small-scale solar photovoltaic systems in 2016.<sup>3</sup>

Major energy sources and percent shares of U.S. electricity generation at utility-scale facilities in 2016<sup>1</sup>

- Natural gas = 33.8%
- Coal = 30.4%
- Nuclear = 19.7%
- Renewables (total) = 14.9%
  - Hydropower = 6.5%
  - Wind = 5.6%
  - Biomass = 1.5%
  - Solar = 0.9%
  - Geothermal = 0.4%
- Petroleum = 0.6%
- Other gases = 0.3%
- Other nonrenewable sources = 0.3%
- Pumped storage hydroelectricity = -0.2%<sup>4</sup>

<sup>1</sup> Preliminary data for 2016.

<sup>2</sup> Electricity generating facilities (power plants) with at least one megawatt (or 1,000 kilowatts) of total electricity generating capacity.

<sup>3</sup> Small-scale solar photovoltaic systems are electricity generators with less than one megawatt of electricity generating capacity that are usually at or near the location where the electricity is consumed. Most small-scale solar photovoltaic systems are installed on building rooftops.

<sup>4</sup> Pumped storage hydroelectricity generation is negative because most pumped storage electricity generation facilities use more electricity than they produce on an annual basis.

Learn more:

[Energy Explained: Electricity in the United States](#)

[Electric Power Monthly: Chapter 1: Net Generation](#)

[Monthly Energy Review: Electricity](#)

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## Other FAQs about Electricity

- Can electric utility customers choose their electricity supplier?
- Does EIA have county-level energy production data?
- Does EIA have data on each power plant in the United States?
- Does EIA have data on the costs for electricity transmission and distribution?
- Does EIA have energy consumption and price data for cities, counties, or by zip code?
- Does EIA have maps or information on the location of electric power plants and transmission lines in the United States?
- Does EIA have projections for energy production, consumption, and prices for individual states?
- Does EIA publish data on peak or hourly electricity generation, demand, and prices?
- Does EIA publish electric utility rate, tariff, and demand charge data?
- Does EIA publish electricity consumption and price data by state?
- How is electricity used in U.S. homes?
- How many nuclear power plants are in the United States, and where are they located?
- How many power plants are there in the United States?
- How many smart meters are installed in the United States, and who has them?
- How much coal, natural gas, or petroleum is used to generate a kilowatthour of electricity?
- How much does it cost to build different types of power plants in the United States?
- How much does it cost to generate electricity with different types of power plants?
- How much electricity does a nuclear power plant generate?
- How much electricity does an American home use?
- How much electricity is lost in transmission and distribution in the United States?
- How much electricity is used for lighting in the United States?
- How much energy is consumed in the world by each energy end-use sector?
- How much of U.S. carbon dioxide emissions are associated with electricity generation?
- How much of U.S. energy consumption and electricity generation comes from renewable energy sources?
- How much of world energy consumption and production is from renewable energy?
- How old are U.S. nuclear power plants, and when was the newest one built?
- What is U.S. electricity generation by energy source?
- What is the difference between electricity generation capacity and electricity generation?
- What is the efficiency of different types of power plants?
- What is the outlook for home heating fuel prices this winter?
- What types and amounts of energy are produced in each state?