



U.S. Energy Information
Administration

Frequently Asked Questions

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

In 2018, about 4,178 billion kilowatthours (kWh) (or 4.18 trillion kWh) of electricity were generated at utility-scale electricity generation facilities in the United States.¹ About 63% of this electricity generation was from fossil fuels (coal, natural gas, petroleum, and other gases). About 20% was from nuclear energy, and about 17% was from renewable energy sources. The U.S. Energy Information Administration estimates that an additional 30 billion kWh of electricity generation was from small-scale solar photovoltaic systems in 2018.²

U.S. electricity generation by source, amount, and share of total in 2018¹

Energy source	Billion kWh	Share of total
Total - all sources	4,178	
Fossil fuels (total)	2,651	63.5%
Natural gas	1,468	35.1%
Coal	1,146	27.4%
Petroleum (total)	25	0.6%
Petroleum liquids	16	0.4%
Petroleum coke	9	0.2%
Other gases	12	0.3%
Nuclear	807	19.3%
Renewables (total)	713	17.1%
Hydropower	292	7.0%
Wind	275	6.6%
Biomass (total)	63	1.5%
Wood	41	1.0%
Landfill gas	11	0.3%
Municipal solid waste (biogenic)	7	0.2%
Other biomass waste	3	0.1%
Solar (total)	67	1.6%
Photovoltaic	63	1.5%
Solar thermal	4	0.1%
Geothermal	17	0.4%
Pumped storage hydropower³	-6	-0.1%
Other sources	13	0.3%

¹ Includes utility-scale electricity generation, which is electricity generation from power plants with at least one megawatt (or 1,000 kilowatts) of total electricity generating capacity.

² 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.

³ [Pumped storage hydroelectricity](#) generation is negative because most pumped storage electricity generation facilities use more electricity than they produce on an annual basis. Most pumped storage systems use fossil fuels or nuclear energy for pumping water to the storage component of the system.

Learn more:

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

[Electric Power Annual: Chapter 3: Net Generation](#)

[Monthly Energy Review: Electricity](#)

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

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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 costs for electricity transmission and distribution?](#)

[Does EIA have data on each power plant in the United States?](#)

[Does EIA have energy consumption and price data for cities, counties, or by zip code?](#)

[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 and by utility?](#)

[Does EIA publish the location of electric power plants and transmission lines?](#)

[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 electricity transmission and distribution in the United States?](#)

[How much electricity is used for cooling in the United States?](#)

[How much electricity is used for lighting in the United States?](#)

[How much energy does the world consume 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?](#)