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[U.S. renewable energy consumption surpasses coal for the first time in over 130 years](#)

Source: U.S. Energy Information Administration, *Monthly Energy Review*

In 2019, U.S. annual energy consumption from renewable sources exceeded coal consumption for the first time since before 1885, according to the U.S. Energy Information Administration's (EIA) *Monthly Energy Review*. This outcome mainly reflects the continued decline in the amount of coal used for electricity generation over the past decade as well as growth in renewable energy, mostly from wind and solar. Compared with 2018, coal consumption in the United States decreased nearly 15%, and total renewable energy consumption grew by 1%.

Historically, [wood](#) was the main source of U.S. energy until the mid-1800s and was the only commercial-scale renewable source of energy in the United States until the [first hydropower plants](#) began producing electricity in the 1880s. [Coal](#) was used in the early 1800s as fuel for steam-powered boats and trains and making steel, and it was later used to generate electricity in the 1880s. EIA's earliest energy estimates [began in 1635](#).

EIA converts sources of energy to common units of heat, called [British thermal units](#) (Btu), to compare different types of energy that are reported in different physical units (barrels, cubic feet, tons, kilowatthours, etc.). EIA uses a [fossil fuel equivalence](#) to calculate electricity consumption of noncombustible renewables such as wind, hydro, solar, and geothermal.

In 2019, U.S. coal consumption decreased for the sixth consecutive year to 11.3 quadrillion Btu, the lowest level since 1964. Electricity generation from coal has declined significantly over the past decade and, in 2019, fell to its [lowest level in 42 years](#). Natural gas consumption in the electric power sector has significantly increased in recent years and [has displaced](#) much of the electricity generation from retired coal plants.

Total renewable energy consumption in the United States grew for the fourth year in a row to a record-high 11.5 quadrillion Btu in 2019. Since 2015, the growth in U.S. renewable energy is almost entirely attributable to the use of wind and solar in the electric power sector. In 2019, electricity generation from [wind surpassed hydro](#) for the first time and is now the most-used source of renewable energy for electricity generation in the United States on an annual basis.

Although [coal](#) was once commonly used in the industrial, transportation, residential, and commercial sectors, today coal is mostly used in the United States to generate electricity. About 90% of U.S. coal consumption is in the electric power sector, and nearly all the rest is in the [industrial sector](#).

[Renewable energy](#) is more broadly consumed by every sector in the United States. About 56% of commercially delivered U.S. renewable energy is used in the electric power sector, mostly from wind and hydroelectric power, but different types are also consumed in the industrial (22%), transportation (12%), residential (7%), and commercial (2%) sectors.

[Biomass](#), which includes wood, biogenic waste, and [biofuels](#), is consumed in every sector. Wood and the losses and co-products from production of biofuels are the main renewable sources used in the industrial sector, and biofuels such as

fuel ethanol, biodiesel, and renewable diesel are used in the transportation sector. Wood, waste, solar, and geothermal are among the most common sources used directly in the residential and commercial sectors.

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