



U.S. Energy Information  
Administration

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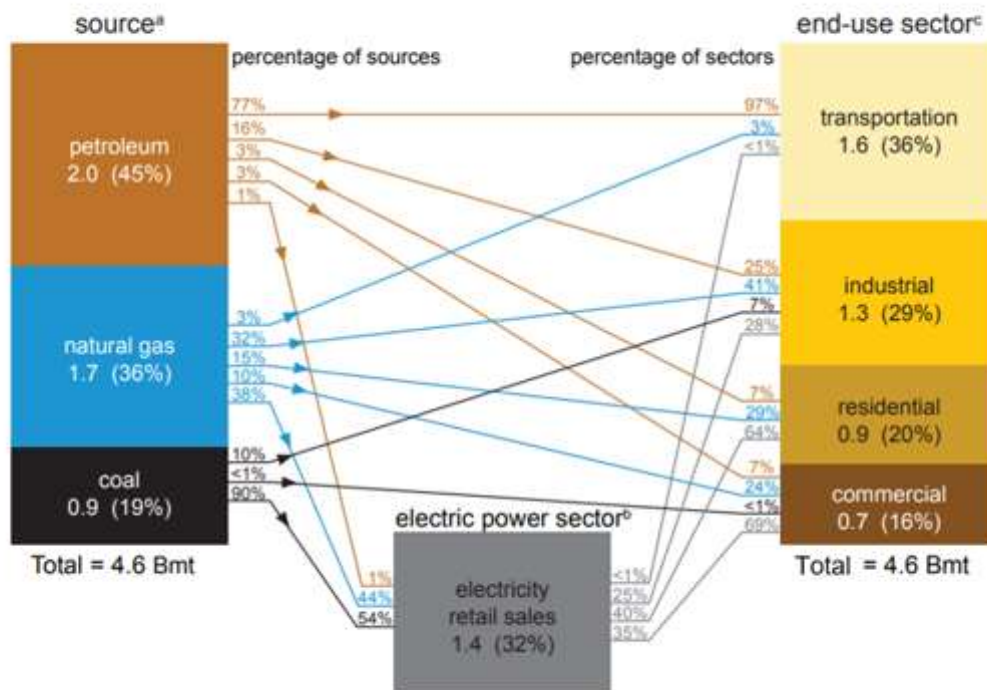
## Today in Energy

July 26, 2021

# In 2020, the United States produced the least CO2 emissions from energy in nearly 40 years

### U.S. CO<sub>2</sub> emissions from energy consumption by source and sector, 2020

billion metric tons (Bmt) of carbon dioxide (CO<sub>2</sub>)



**Source:** U.S. Energy Information Administration, [Monthly Energy Review](#)

**Note:** Click for full [U.S. CO<sub>2</sub> emissions chart](#).

In 2020, as the country responded to the COVID-19 pandemic, CO<sub>2</sub> emissions from energy consumption in the United States fell to the lowest level since 1983. The 4.6 billion metric tons (Bmt) of CO<sub>2</sub> emitted in 2020 was an **11% decrease from 2019**, the largest annual decrease on record, according to our [Monthly Energy Review](#). Our new [U.S. CO<sub>2</sub> emissions from energy consumption by source and sector](#) chart illustrates CO<sub>2</sub> emissions by energy source and sector.

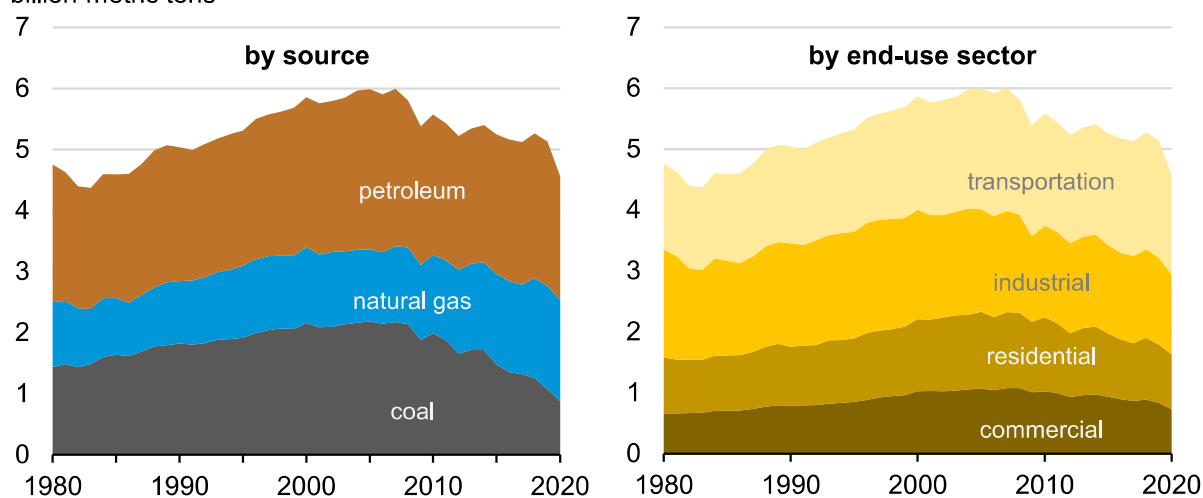
U.S. petroleum consumption accounted for 2.0 Bmt of energy-related CO<sub>2</sub> emissions, or about 45% of the U.S. total, in 2020. About 77% of petroleum CO<sub>2</sub> emissions occurred in the transportation sector in 2020.

In 2020, U.S. natural gas consumption accounted for 1.7 Bmt of CO<sub>2</sub> emissions, or about 36% of the total—its largest share on record. In 2020, about 38% of CO<sub>2</sub> emissions from natural gas occurred in the electric power sector, and 32% were in the industrial sector.

In 2020, coal consumption accounted for 0.9 Bmt of CO<sub>2</sub> emissions, or about 19% of total CO<sub>2</sub> emissions, both its lowest total amount and share in [our annual data series that begins in 1973](#). In 2020, about 90% of CO<sub>2</sub> emissions from coal occurred in the electric power sector. Coal consumption in the electric power sector has declined over the past decade, [displaced by natural gas and renewable energy](#).

## U.S. energy-related carbon dioxide emissions (1980–2020)

billion metric tons



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

The electric power sector is an intermediate energy-consuming sector, and therefore, we allocate its CO<sub>2</sub> emissions proportionally to the amount of electricity sold to each consumption sector in this chart. In 2020, coal accounted for 54% of electric power CO<sub>2</sub> emissions, even though coal accounted for 19% of electricity generation in the electric power sector last year.

The U.S. transportation sector emitted 1.6 Bmt of CO<sub>2</sub> in 2020, or about 36% of the nation's total energy-related CO<sub>2</sub> emissions. U.S. transportation sector CO<sub>2</sub> emissions dropped 15% from 2019 as a result of the decrease in petroleum consumption for travel during the COVID-19 pandemic. In 2020, petroleum accounted for 97% of U.S. transportation sector CO<sub>2</sub> emissions.

The U.S. industrial sector emitted 1.3 Bmt of CO<sub>2</sub> in 2020. In 2020, direct consumption of natural gas accounted for 41% of the sector's CO<sub>2</sub> emissions, electric power generation accounted for 28%, petroleum for 25%, and coal for 7%.

The U.S. residential sector emitted 0.9 Bmt of CO<sub>2</sub> in 2020, a 6% drop from 2019. Energy consumption in the residential sector was down overall in 2020 despite more people staying at home. In 2020, electric power generation accounted for 64% of residential CO<sub>2</sub> emissions, and direct consumption of natural gas accounted for 29%.

The U.S. commercial sector emitted 0.7 Bmt of CO<sub>2</sub> in 2020, or 16% of total U.S. energy-related CO<sub>2</sub> emissions, the least of any sector. In 2020, 69% of commercial sector CO<sub>2</sub> emissions came from electric power generation, and 24% was from direct consumption of natural gas.

As the nation emerges from the COVID-19 pandemic and travel and the economy begin to grow again, we expect CO<sub>2</sub> emissions to grow by 0.3 Bmt ( 7%) in 2021, according to the July update of our *Short-Term Energy Outlook*.

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