

BY THE NUMBERS: ROUNDING THE PEAK

Annual U.S. carbon emissions are down by more than a gigaton since 2007. The next gigaton of cuts may be the hardest. **BY JEFFREY WINTERS**

or generations, every sector of the economy continued to emit greater amounts of carbon dioxide and other heat-trapping gases. Then from 2004 to 2007, the relentless climb stopped. In the years since 2007, the U.S. has cut its emissions by more than 15 percent. According to the U.S. Environmental Protection Agency, which produces an annual greenhouse gas emissions inventory, in 2021, greenhouse gas emissions were below 1990 levels, which is the first year the EPA collected the data.

Nearly 78 percent of the decrease in emissions is accounted for by the electric power sector, as the industry began switching from coal-fired plants to gas turbines and renewables. Fuel economy standards for new automobiles have increased substantially over the past 15 years, and that accounts for some of the 30 percent drop in emissions due to gasoline-powered cars.

The chart shows major emissions categories, sorted by whether they have decreased or increased since 2005.



	Coal combustion	1,983 Mt	
	Passenger cars: Gasoline combustion	519 Mt	
	Industry: Fossil fuel combustion	800 Mt	
Innai	Residential fossil fuels	359 Mt	
21015	Industry: Other	249 Mt	
SG	Aviation: Jet Fuel	133 Mt	
CSC	Industry: Nat gas sys	228 Mt	
	Agriculture: Crop cultiv	320 Mt	
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Electric power industry:	
Coal combustion	910 Mt
Passenger cars:	
Gasoline combustion	361 Mt

Industry: Fossil fuel combustion	739 Mt
Residential fossil fuels	313 Mt
Industry: Other	230 Mt
Aviation: Jet Fuel	119 Mt
Industry: Nat gas sys	218 Mt
Agriculture: Crop cultiv	320 Mt
Industry: Gas/petro sys	301 Mt
Commercial: Fossil fuel	233 Mt
Transport: Other fuel	273 Mt
Commercial: Other	206 Mt
Agriculture: Livestock	278 Mt
Commercial trucks:	
Diesel combustion	380 Mt
Light-duty trucks: Gasoline combustion	620 Mt
Electric nower industry:	

613 Mt

Annual carbon emissions due to coal power plants and gasoline-fueled passenger cars have declined by more than 1,200 million tons of carbon dioxide since 2005.

Those improvements were offset partially by increases due to gas-fired power plants and passenger and commercial trucks. Even so, U.S. emissions are down by 15 percent.

Data source: Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2021. U.S. Environmental Protection Agency

Gas combustion

