

U.S. Carbon Emissions Surged in 2018 Even as Coal Plants Closed



By **Brad Plumer**

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WASHINGTON — America's carbon dioxide emissions rose by 3.4 percent in 2018, the biggest increase in eight years, according to a preliminary estimate published Tuesday.

Strikingly, the sharp uptick in emissions occurred even as a near-record number of coal plants around the United States retired last year, illustrating how difficult it could be for the country to make further progress on climate change in the years to come, particularly as the Trump administration pushes to roll back federal regulations that limit greenhouse gas emissions.

The estimate, by the research firm Rhodium Group, pointed to a stark reversal. Fossil fuel emissions in the United States have fallen significantly since 2005 and declined each of the previous three years, in part because of a boom in cheap natural gas and renewable energy, which have been rapidly displacing dirtier coal-fired power.

Yet even a steep drop in coal use last year wasn't enough to offset rising emissions in other parts of the economy. Some of that increase was weather-related: A relatively cold winter led to a spike in the use of oil and gas for heating in areas like New England.

But, just as important, as the United States economy grew at a strong pace last year, emissions from factories, planes and trucks soared. And there are few policies in place to clean those sectors up.

"The big takeaway for me is that we haven't yet successfully decoupled U.S. emissions growth from economic growth," said Trevor Houser, a climate and energy analyst at the Rhodium Group.

As United States manufacturing boomed, for instance, emissions from the nation's industrial sectors — including steel, cement, chemicals and refineries — increased by 5.7 percent.

Policymakers working on climate change at the federal and state level have so far largely shied away from regulating heavy industry, which directly contributes about one-sixth of the country's carbon emissions. Instead, they've focused on decarbonizing the electricity sector through actions like promoting wind and solar power.

But even as power generation has gotten cleaner, those overlooked industrial plants and factories have become a larger source of climate pollution. The Rhodium Group estimates that the industrial sector is on track to become the second-biggest source of emissions in California by 2020, behind only transportation, and the biggest source in Texas by 2022.

There's a similar story in transportation: Since 2011, the federal government has been steadily ratcheting up fuel-economy standards for cars and light trucks, although the Trump administration has proposed to halt the toughening of those standards after 2021.

There are signs that those standards have been effective. In the first nine months of 2018, Americans drove slightly more miles in passenger vehicles than they did over that span the previous year, yet gasoline use dropped by 0.1 percent, thanks in part to fuel-efficient vehicles and electric cars.

→ But, as America's economy expanded last year, trucking and air travel also grew rapidly, leading to a 3 percent increase in diesel and jet fuel use and spurring an overall rise in transportation emissions for the year. Air travel and freight have also attracted less attention from policymakers to date and are considered much more difficult to electrify or decarbonize.

Demand for electricity surged last year, too, as the economy grew, and renewable power did not expand fast enough to meet the extra demand. As a result, natural gas filled in the gap, and emissions from electricity rose an estimated 1.9 percent. (Natural gas produces lower CO2 emissions than coal when burned, but it is still a fossil fuel.)



Transmission towers near the coal-fired Will County Generating Station in Romeoville, Ill. Daniel Acker/Bloomberg

Even with last year's increase, carbon dioxide emissions in the United States are still down 11 percent since 2005, a period of considerable economic growth. Trump administration officials have often cited that broader trend as evidence that the country can cut its climate pollution without strict regulations.

But if the world wants to avert the most dire effects of global warming, major industrialized countries, including the United States, will have to cut their fossil-fuel emissions much more drastically than they are currently doing.

Last month, scientists reported that greenhouse gas emissions worldwide rose at an accelerating pace in 2018, putting the world on track to face some of the most severe consequences of global warming sooner than expected.

Under the Paris climate agreement, the United States vowed to cut emissions 26 to 28 percent below 2005 levels by 2025. The Rhodium Group report warns that this target now looks nearly unattainable without a flurry of new policies or technological advances to drive down emissions throughout the economy.

"The U.S. has led the world in emissions reductions in the last decade thanks in large part to cheap gas displacing coal," said Jason Bordoff, director of the Center on Global Energy Policy at Columbia University, who was not involved in the analysis. "But that has its limits, and markets alone will not deliver anywhere close to the pace of decarbonization needed without much stronger climate policy efforts that are unfortunately stalled if not reversed under the Trump administration."

The Rhodium Group created its estimate by using government data for the first three quarters of 2018 combined with more recent industry data. The United States government will publish its official emissions estimates for all of 2018 later this year.

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SENT	January 08, 2019 09:16 (/airnoise_complaints/1210085?user_id=239)	KSEA	Commercial	ASA8	N523AS	Departure	4.16 / 2050
SENT	January 08, 2019 09:12 (/airnoise_complaints/1210068?user_id=239)	KSEA	Commercial	DAL2734	N820DX	Departure	1.55 / 5475
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