

## HINDSIGHT

# Europe Met a Climate Target. But Is It Burning Less Carbon?

The European Union promised to reduce its emissions 20 percent by 2020. Did it happen?

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**Hindsight** is a series from the Headway team looking back at predictions and promises from the past.

As the 2009 global climate summit in Copenhagen approached, the European Union raced to announce an ambitious target for reducing greenhouse gas emissions. The bloc's leaders worked to smooth over the competing interests of more than two dozen members, settling on a three-part plan that it promised to meet by 2020, nicknamed the 20-20-20 Pledge: The bloc would reduce its emissions by 20 percent from 1990 levels, increase renewable energy to 20 percent of electricity use, and increase energy efficiency by 20 percent.

By the 2020 deadline, the European Union had achieved two of its three goals — an example of a major emitter achieving a climate pledge. Overall emissions were 24 percent lower than in 1990, by the bloc's accounting, and renewable energy was about 20 percent of its electricity use. But many climate scientists and others involved in the process question the European Union's accounting.

## How did Europe meet its goal?

There were stumbling blocks in the European Union's plan to lower its carbon output. When it began in 2005, the bloc's emissions trading system was the world's most ambitious effort to put a price on polluting with carbon. But early on, that price was low enough that some considered the system worse than useless. By 2013, concerns about the system's viability were so dire that the European Parliament stepped in to lift the price of carbon. Britain went even further, fixing the minimum price of carbon for power producers. These changes helped to bring about a shift: By 2017, coal had fallen to 7 percent of Britain's electricity generation from 40 percent in 2013.

As coal use declined across Europe, the power sector shifted to renewable sources. But that created its own controversy.

"A fundamental mistake was made at the beginning, and we're still suffering," said Bas Eickhout, a Dutch politician and member of the European Parliament. Back in 2009, Eickhout was a scientist whose research pointed to the importance of rigorous standards for sustainability. He was dismayed when the European Union chose to count biomass energy as a renewable, carbon-neutral source, akin to wind and solar.

Most biomass is wood that comes from cutting down forests and making the material into pellets. Because pellets can be burned in existing coal-fired power plants, they provide an easy, comparatively cheap way for countries to reduce their emissions — at least on paper.



Logs that will be turned into wood pellets. Most biomass comes from trees. Erin Schaff/The New York Times

The European Union and the Intergovernmental Panel on Climate Change — the main scientific body on climate change — count carbon emissions from biomass where the trees are cut down, not where the material is burned. That means the bloc's accounting doesn't factor in the carbon footprint of processing trees into wood pellets, shipping them across the ocean or burning them for fuel.

Trees can regrow, which is why the European Union considers biomass renewable. But critics argue its true emissions impact has been underestimated. Seth Ginther, the executive director of the U.S. Industrial Pellet Association, a trade group, said that the southeastern United States, where much of the world's biomass is currently harvested, had actually increased its forest stock in the past 50 years. But trees planted for timber aren't as effective as native forests at storing carbon, and it can take many years — a century, by some estimates — for newly planted forests to accumulate as much carbon as mature ones. And burning wood can be even less efficient than burning coal; it releases more carbon into the atmosphere per megawatt produced.



Finished wood pellets can be burned in coal-fired power plants. Erin Schaff/The New York Times



A wood pellet plant in North Carolina. Erin Schaff/The New York Times

Europe's renewable energy production has doubled since 2004. While solar power has grown the fastest, by 2016, biomass accounted for almost 60 percent of the bloc's total renewable energy. Thanks in part to E.U. subsidies, the American wood pellet industry ballooned to around nine million tons in 2018 from 0.3 million tons in 2009. Because of the high cost of energy in Europe this past winter, 2021 is the first year that burning biomass has been profitable without government subsidies.

## Did Europe do enough?

The European Union's most significant chance to address these criticisms came after the signing of the Paris Agreement in 2015. There, the bloc committed to cut emissions by 40 percent from 1990 levels by 2030; that target was increased to 55 percent in 2021.

To meet these promises, the European Union revised its renewable energy policies in 2018 and is in the process of doing so again. The revisions limit the use of woody biomass for energy and restrict its sourcing from highly biodiverse forests, but some environmental groups say the proposed standards still aren't enough.

Europe is still moving faster on more ambitious climate goals than other countries, including the United States. A United Nations report released in October found that even if every country in the world met its current targets, the world would still see 2.7 degrees Celsius of warming by the end of the century, which "would lead to catastrophic changes in the Earth's climate."

In that light, was the European Union's 2020 target ambitious enough? "Depends on your definition of ambition," said Yvo de Boer, the executive secretary of the United Nations Framework Convention on Climate Change from 2006 to 2010. "It was probably recognized as not being ambitious enough from the perspective of avoiding dangerous climate change. But I think from the perspective of politics, it was seen as sufficiently ambitious and a critical step in the right direction."

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### What does this story tell you about progress?

This Headway story and the others in this series are the first entries in an ongoing conversation about progress — how we define it and how we make it. With this series, we're trying to capture some of your insights about how events have played out in

hindsight. Share your thoughts in response to our prompts below, or write to us at [DearHeadway@nytimes.com](mailto:DearHeadway@nytimes.com).

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