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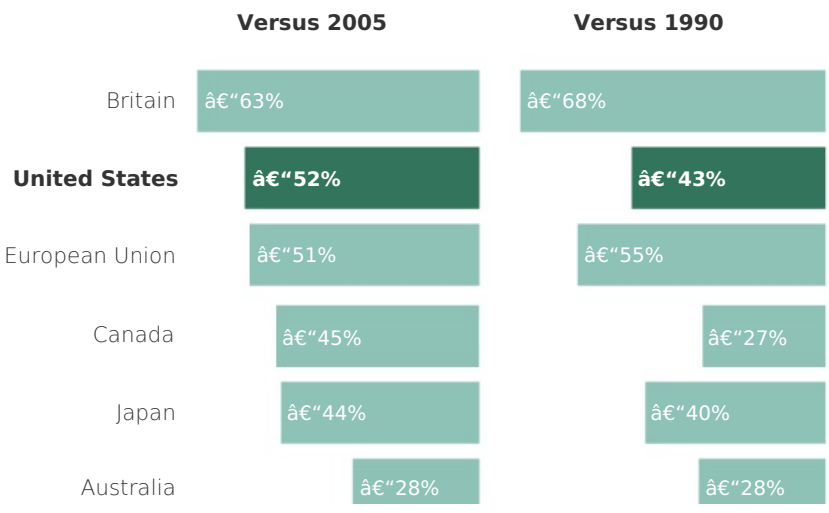
The U.S. Has a New Climate Goal. How Does It Stack Up Globally?

By Brad Plumer and Nadja PopovichUpdated April 22, 2021

The United States officially has a new goal for fighting climate change over the next decade. So how ambitious is it?

President Biden announced Thursday that America would aim to cut its greenhouse gas emissions 50 percent to 52 percent below 2005 levels by 2030. Thatâ€™s one of the more aggressive near-term targets among wealthy industrialized nations, although the cuts are arguably not quite as large as what the European Union and Britain have already promised.

How Pledges to Cut Emissions Compare



Source: Rhodium Group Â· Charts reflect high end of emissions reduction pledges.

Comparing national pledges to cut emissions can be surprisingly tricky â€” a lot depends on the year you start counting from. The United States has decided to measure its reductions from 2005, which is roughly when the nationâ€™s fossil fuel emissions reached a peak. But European countries tend to measure their reductions from 1990, when emissions began falling across the continent as a result of early climate policies and the collapse of polluting Communist economies in the East.

The later baseline makes the United States target look a bit better, because it omits a period when emissions were rising. An earlier baseline makes Europe look more ambitious, since it has been cutting for longer.

Mr. Biden unveiled the pledge at a White House climate summit for world leaders, declaring that the United States is ready to reclaim a leadership role on climate change. Japan also announced it would strengthen its climate targets, aiming for what translates to a 44 percent cut below 2005 levels by 2030. Canada also updated its climate goals, committing to a 40 percent to 45 percent cut below 2005 levels by 2030.

Ultimately, however, thereâ€™s one climate metric that matters most: How quickly the entire world can get to zero emissions and halt the warming of the planet.

To avoid many of the most catastrophic risks of climate change, such the collapse of polar ice sheets or widespread crop failures, scientists have said that the world likely needs to zero out emissions from fossil fuels and deforestation by around mid-century. â€œIf the ultimate goal is zero emissions, then the metric we really care about is how quickly countries can get to zero,â€ said Kate Larsen, a director at Rhodium Group, an energy research and consulting firm.

On that score, the world is still falling far short.

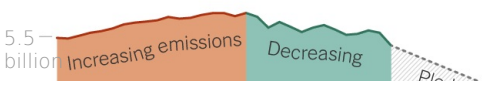
While the United States and the European Union are both now vowing to get roughly halfway to zero by 2030 â€” on the way to net zero emissions by 2050 â€” they account for only one-quarter of global greenhouse gas emissions. But many lower-income countries, including China and India, still expect their emissions to either plateau or keep rising over the next decade.

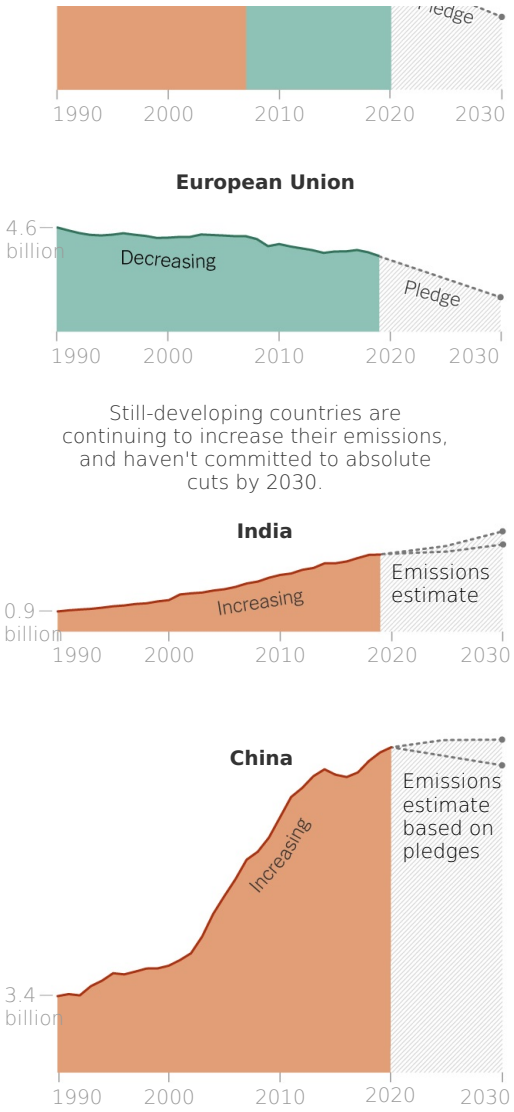
Trajectories for the Worldâ€™s Largest Emitters

The United States was still increasing emissions until the mid-2000s, while Europe took earlier action.

In metric tons CO_2

United States





Source: Rhodium Group

China, the worldâ€™s largest emitter of greenhouse gases, has pledged that its emissions will peak by around 2030. From that point, the country will then aim to get down to net zero emissions by 2060. China has also laid out some concrete targets, such as getting one-quarter of its electricity from low-carbon sources like wind, solar or nuclear power; planting vast new forests; and curbing the use of hydrofluorocarbons, a powerful greenhouse gas used as a refrigerant.

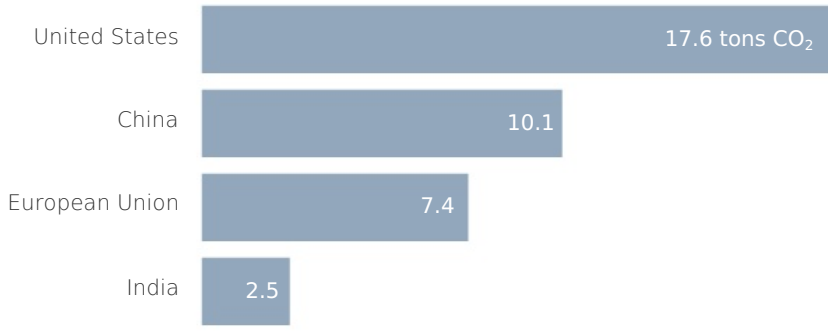
If all those targets are met, an analysis by the Rhodium Group found, Chinaâ€™s emissions could level off close to current levels by the end of the decade, although the exact numbers depend on how rapidly the countryâ€™s economy grows.

But China is not yet committing to specific cuts before 2030. Chinaâ€™s argument is that it was slower to industrialize than the United States and Europe, and therefore needs more time to pivot away from fossil fuels like coal. â€œWhen it comes to climate change response, China is at a different stage than the U.S., Western nations and other developed countries.â€ Le Yucheng, Chinaâ€™s vice foreign minister, said last week.

India, for its part, has not yet formally set a date for when its emissions will peak, though it has announced goals for increasing the use of cleaner energy sources like solar power and slowing its growth in fossil-fuel consumption. Officials there point out that India is still much poorer than the United States or

Europe, and it is unfair to hold them to the same standard.

The U.S. Still Had the Highest Per-person Emissions in 2019



Sources: Rhodium Group, World Bank

Indeed, looking at emissions per person tells a different story about which country is doing the most. Currently, the United States uses far more fossil fuels per person than almost any other country in the world, although China is quickly narrowing the gap.

If every country were to meet its stated climate goals, Americaâ€™s per capita emissions would decline and converge with Chinaâ€™s by 2030, the Rhodium Group estimated. But both countriesâ€™ per capita emissions would still be twice that of Europeâ€™s and nearly four times that of Indiaâ€™s.

Partly for that reason, some environmentalists have argued that the United States should have picked an even more ambitious target for reducing emissions. Doing so would not only make up for decades of being by far the worldâ€™s largest emitter, they argue, but would also give lower-income countries like India more time to transition off fossil fuels. One recent report by a range of civil society groups urged the United States to commit to a 70 percent cut by 2030, along with vast new funding for clean-energy projects in the developing world.

â€œIf youâ€™re asking whether the U.S. target is fair and ambitious, the right yardstick isnâ€™t what will pass muster with the Senate,â€ said Sivan Kartha, a senior scientist at the Stockholm Environment Institute and a co-author of the report. â€œThe question is what should the United States do given its capacity to act and its historical responsibility for causing the problem?â€

Many Republicans in Congress have argued that the Biden administration is acting too aggressively on climate change when countries like China and India have yet to commit to absolute emissions cuts. Senator John Barrasso, Republican of Wyoming, said that the president was â€œunilaterally committing America to a drastic and damaging emissions pledgeâ€ that would punish the U.S. economy while â€œAmericaâ€™s adversaries like China and Russia continue to increase emissions at will.â€

The Biden administrationâ€™s calculus is that it should set a target that is both challenging to meet but also politically plausible. By doing so, officials say, they can persuade other countries to do more â€” both through diplomatic pressure and by driving down the cost of new low-carbon technologies, such as electric vehicles or hydrogen fuels, to make it easier for other countries to act.

It remains to be seen if the United States can pull that off.

The Biden administration invited more than 40 world leaders to this weekâ€™s climate summit with the hope that other countries might announce fresh commitments of their own. Mr. Biden has long vowed to transform the United States into a global leader on climate change, after the Trump administration had largely dismissed the issue for four years.

So far, the results have been mixed. Japan and Canada both agreed to strengthen their 2030 targets. The British government said Tuesday that it would step up action with a new target, cutting emissions 78 percent below 1990 levels by 2035. But other major emitters such as China, India and Russia have yet to offer significant new pledges.

The Biden administration also faces serious questions about whether it can actually meet its 2030 climate target, which unlike the pledges from the European Union or Britain, is not enshrined into law. After all, lofty goals on paper will achieve little unless theyâ€™re backed up by concrete action.

One recent study estimated that Americaâ€™s greenhouse gas emissions have already fallen 21.5 percent between 2005 and 2020. Much of that was the result of electric utilities retiring their dirtiest coal plants in favor of cleaner and cheaper natural gas, wind and solar power. An additional one-third of cuts resulted from the coronavirus pandemic, because business activity slumped and people drove less. However, emissions are expected to rebound this year as the economy rumbles back to life.

To get at least a 50 percent cut by 2030, a variety of studies have found, the United States would need to adopt sweeping new policies and slash emissions each year at an unprecedented rate. Possible strategies include requiring utilities to install vastly more wind and solar power, persuading Americans to buy many more electric cars, and forcing oil and gas companies to slash emissions of methane, a potent heat-trapping gas. States like California and New York could help, too, by following through on their plans to clean up their power plants and vehicle fleets.

Mr. Biden has already proposed a number of new climate measures. His big infrastructure proposal, estimated at between $3 trillion and $4 trillion, includes tax incentives for clean energy and electric vehicles. Separately, the Environmental Protection Agency is looking at enacting stricter regulations for tailpipe pollution from cars and trucks and for methane emissions.

But none of those measures have passed into law yet. And they face an uncertain fate in Congress and the courts.

â€œThere are a number of plausible pathways to hit that target, but itâ€™s frankly going to be challenging,â€ said Nathan Hultman, director of University of Marylandâ€™s Center on Global Sustainability who has modeled what a 50 percent cut would require. â€œWe wonâ€™t be able to sit back and hope that market forces alone will do the job.â€

Many countries face similar questions.

Canada, for instance, has pledged to cut emissions up to 45 percent below 2005 levels by 2030. Its emissions have fallen just 1 percent, but Prime Minister Justin Trudeau said that the countryâ€™s adoption of a hefty new carbon tax would help meet the new targets. In Britain, environmental groups have warned that the nationâ€™s ambitious promises have yet to be backed up by rigorous new policies.

Thereâ€™s also the biggest uncertainty of all: Mr. Bidenâ€™s first term ends in 2024. What happens if he is succeeded by a president who abandons his climate targets, much as President Trump dismantled President Obamaâ€™s regulations on greenhouse gas emissions?

In the European Union and Britain, thereâ€™s a broader political consensus around climate policy that doesnâ€™t change too drastically when different parties take power. But in nations like Australia, Canada or especially the United States, rival political parties often have sharply divergent views on how quickly they should cut emissions â€” or even whether itâ€™s desirable to cut emissions at all.

â€œIn countries where a change in government can derail the whole thing,â€ said Oliver Geden, a senior fellow at the German Institute for International and Security Affairs, â€œitâ€™s a lot harder to be sure that these goals are here to stay.â€

Notes: Charts show the carbon dioxide equivalent of net greenhouse gas emissions, including emissions and sinks from land use and forestry. Rhodium Groupâ€™s estimates of emissions data for each country from 1990 to 2019 includes all major greenhouse gases, consistent with national reporting to the United Nations. Emissions from international aviation and shipping are excluded from national figures.

Emissions trajectory charts for the United States and the European Union reflect pledged emissions cuts by 2030. For China and India, future emissions trajectories assume that both countries fulfill all of their publicly stated climate pledges and phase down hydrofluorocarbon gases in line with their commitments under the Montreal Protocol. The high end projections for China and India assume slightly faster annual economic growth than projected by the International Energy Agency through 2030, the low end assumes slightly slower growth.

Correction:Â
April 22, 2021

An earlier version of this article misidentified the current prime minister of Canada. He is Justin Trudeau, not Pierre Trudeau.

Site Index

Site Information Navigation