

Even without the clean power plan, US can achieve Paris Agreement emissions reductions

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Carnegie Mellon University researchers have calculated that the U.S. can meet—or even beat—the near-term carbon dioxide emission reductions required by the United Nations Paris Agreement, despite the Trump Administration's withdrawal of the Clean Power Plan (CPP).

Published in an *Environmental Science & Technology* viewpoint, the CMU team used data from U.S. Energy Information Administration's 2017 Annual Energy Outlook to examine projected power sector carbon dioxide emissions to determine if the CPP [emission](#) targets for 2020, 2025 and 2030 can still be met. They found that emissions declined from 2.7 billion tons to an estimated 1.9 billion tons and revealed a strong link to natural gas prices as being a driving market force. The decrease puts U.S. emissions reduction at the CPP's planned 2025 target this year.

"The U.S. has already come quite far in reducing carbon dioxide emissions. The biggest driver of lower [carbon dioxide emissions](#) has been declining natural gas prices, which has allowed the industry to replace coal-fired power plants economically with cleaner natural gas power plants—and without a costly regulatory mandate," said Jeffrey J. Anderson, a doctoral candidate in the Department of Engineering and Public Policy.

Additional actions are needed to assure longer-term compliance with Paris Agreement objectives—and to safeguard against the impact of a rise in [natural gas prices](#). For example, regulatory and legislative focuses should be on maintaining the trajectory that the market forces have created to sustain the current transition period into the intermediate future. To meet longer-term and deeper de-carbonization goals, there will be a need for proactive regulatory activity. In addition, incentivizing low or zero [carbon](#) dioxide-emitting sources, improving energy efficiency and encouraging repowering and retrofitting options are other important avenues to de-carbonizing the power sector.

"Our work shows that the U.S. [power](#) sector could meet the Paris Agreement goals even without the Clean Power Plan, and that the path to compliance can be a collection of politically feasible, minimally invasive actions—if we plan ahead and start now," said David Rode, a recent Ph.D. graduate from the Department of Social and Decision Sciences.

More information: Jeffrey J. Anderson et al, Will We Always Have Paris? CO2 Reduction without the Clean Power Plan, *Environmental Science & Technology* (2018). [DOI: 10.1021/acs.est.8b00407](https://doi.org/10.1021/acs.est.8b00407)

Provided by Carnegie Mellon University

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