The U.S. 2030 Climate Target Remains Within Reach

Policy Opportunities to Achieve 50% Emissions Reductions

About one year ago, the United States offered a new and ambitious national climate target: to reduce our greenhouse gas emissions by 50–52% by 2030, relative to 2005 levels. In this critical decade, delivering on this nationally determined contribution (NDC) would set the United States toward net-zero emissions by 2050 and support a global 1.5°C-compatible future. Our previous work on opportunities for U.S. action has consistently shown that this NDC is a good target—it is ambitious, achievable, and aligned with global pathways to keep 1.5°C within reach.[1, 2, 3, 4, 5, 6]

In a new paper[7] published in Science, CGS researchers and five other leading U.S. modeling teams assessed pathways toward the U.S. NDC. The assessments, undertaken by CGS/Pacific Northwest National Laboratory, Electric Power Research Institute, Lawrence Berkeley National Laboratory, Natural Resources Defense Council, Massachusetts Institute of Technology, and Environmental Defense Fund, reaffirm that halving U.S. emissions is technologically achievable, economically reasonable, and politically within reach. While time is running short, achieving the target is possible through feasible policies implemented through a comprehensive, all-of-society climate strategy rooted in new federal policies, incentives, and regulatory actions, as well as continued and enhanced actions from states, cities, and businesses.

Where does action need to be taken?

1. **Rapid decarbonization of the power and transportation sectors will be critical, accounting for around 70-90% of reductions across models.**
2. **The electricity sector** can be decarbonized through the accelerated retirement of coal plants and subsequent displacement with renewable energy. Models strongly agree that most, if not all, coal plants must be retired in the next eight years.
3. **The transport sector** can reduce emissions through rapid electrification, paired with a decarbonized electric grid. Models show electric vehicle (E.V.) sales far beyond the 4% observed today, with average battery electric vehicle sales of 67% (34% to 100% across models) by 2030
4. **Actions in all sectors are needed to deliver on the 2030 target** and enable deeper emissions reductions in later decades, including efficiency improvements and electrification of industry and buildings sectors, enhancing the land sink, and reducing non-CO_2 emissions.

What are policy opportunities to achieve 50–52% by 2030?

Current market trends, existing technologies, and on-the-books policies lower emissions but will not by themselves enable the United States to reach the 2030 target. **Additional actions that collectively could achieve the target would include:**

Accelerated Electrification and Deployment of Renewables: Robust policies that remove barriers to expedite supply- and demand-side buildouts and maintain energy reliability would accelerate electrification and the deployment of renewable technologies.

Expanded and New Federal Policies and Incentives: Models agree that additional federal policies and incentives, such as those proposed in the Build Back Better package, are needed to reach the U.S. target. These measures include the federal E.V. tax credits, zero-emissions technologies tax credits, and a clean electricity standard. Federal policies should also encourage affordable and equitable decarbonization.

Increased Support from Non-Federal Actors: States, cities, and businesses can expand upon federal policies through actions such as enhanced clean electricity goals, zero-emission vehicle mandates and zones, building standards that encourage electrification, and mandates that prohibit venting and flaring at oil and gas sites.

Technological Advancement: Continued investments in emerging technologies, such as carbon capture and sequestration and green hydrogen, would help with emissions reductions in hard-to-abate sectors such as freight vehicles and industry.

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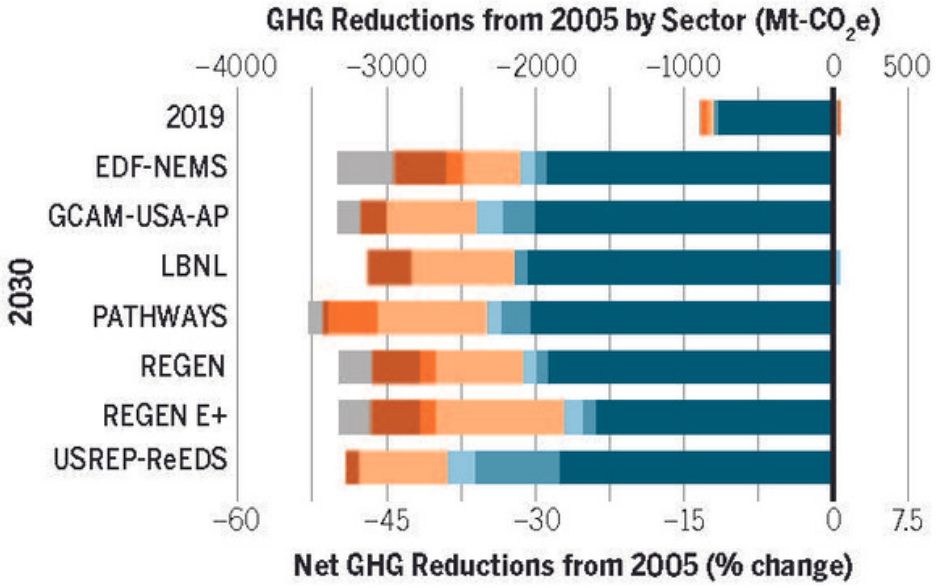

Emissions reductions by sector and model

Historical emissions and 100-year Global Warming Potential values are based on the U.S. EPA's "Inventory of U.S. Greenhouse Gas Emissions and Sinks." "Other CO_2 " refers to non-energy CO_2 emissions where specified.

Land · Non-CO_2 GHGs · Other CO_2 · Transport · Buildings · Industry · Electic

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Acknowledgements

The views and opinions expressed in this paper are those of the authors alone and do not necessarily state or reflect those of their respective institutions or funding agencies, and no official endorsement should be inferred. Funding for this research is supported by the Bloomberg Philanthropies.

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