What's stopping US climate policies from working effectively?

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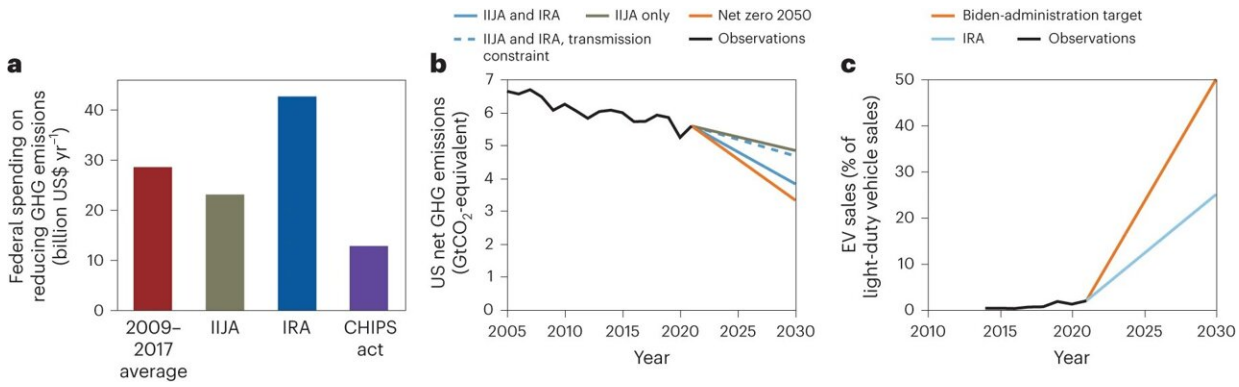

Spending and targets of recent US climate policies. **a**, Spending on reducing GHG emissions (not including adaptation) from the IIJA, the IRA, and the CHIPS and Science Act (CHIPS Act), compared with a 2009–2017 baseline[5]. **b**, Historical net GHG emissions (including land-based carbon sinks), compared with net-zero targets, and projections to 2030 from policy scenarios[9]. Lines shown connect 2021 observations to projected 2030 values, for simplicity. **c**, Historical EV sales (% of light-duty vehicles), compared with a Biden-administration target[7] and a simulated IRA scenario[102]. Credit: *Nature Climate Change* (2024). DOI: 10.1038/s41558-023-01906-y

In an effort to reduce greenhouse gas emissions and curb global warming, the U.S. has enacted several ambitious federal laws, such as the Inflation Reduction Act (IRA) passed in 2022 and the Infrastructure Investment and Jobs Act (IIJA) of 2021.

These provide significant investments in clean energy projects and encourage technological innovations. Some analyses suggest they could reduce greenhouse gas emissions by more than 40% below 2005 levels by 2030.

However, in a paper published Jan. 16 in the journal *Nature Climate Change*, researchers at the University of Colorado Boulder and their collaborators suggest that these estimates may be overly optimistic, with everything from consumer decision-making to political polarization influencing how well they work.

"America stands at a pivotal moment with the passage of its ambitious climate legislation," said Leaf Van Boven, a co-author of the paper and a professor of psychology and neuroscience at CU Boulder. "The nation's ability to unite behind these transformative policies will either ignite a sustainable energy revolution or fumble into the familiar deadlock of political discord."

The researchers said these climate laws will only have their intended effects if the invested money is deployed effectively.

For example, on the supply side, whether renewable energy infrastructure projects funded by these policies can be built at speed and at scale will affect how effective the policies are.

Currently, the average time for the federal government to issue a permit for a power transmission project in the U.S. is typically six to eight years.

Up to 80% of the IRA's potential emissions reductions could be lost unless we can expand our power transmission network at twice the speed we have historically, according to Matt Burgess, the paper's co-author, a fellow of the Cooperative Institute for Research and Environmental

Sciences (CIRES) and director of the Center for Social and Environmental Futures (C-SEF).

"If it takes six to eight years to get a permit for a power line and even longer to get a utility-scale solar project approved, we might have almost no shovels in the ground in many key areas by 2035, when we're supposed to have already made significant progress," Burgess said.

In addition, the team wrote in the paper that if these climate policies become too politically polarized that the next Congress repeals them or local governments refuse to spend the money, the policies will not be effective.

The researchers also proposed some potential solutions to reduce this resistance. For example, avoiding framing these laws as climate policies could reduce political polarization.

In a separate report published by C-SEF and available on *Zenodo*, Burgess and his team demonstrated that views on climate change played a significant role in whom people voted for when voters cast their ballots in the 2016 and 2020 presidential elections. The team concluded that the climate issue very likely cost Republicans the 2020 election, all else equal.

"This is obviously information that politicians and advocates across the political spectrum will want to know, heading into the 2024 election cycle," said Burgess. "Beyond that, we don't see it as our job as researchers to editorialize. How to reduce political polarization of climate change is one of the questions our research group is most interested in currently, and this provides some insight."

More information: Matthew G. Burgess et al, Supply, demand and polarization challenges facing US climate policies, *Nature Climate*

Change (2024). DOI: 10.1038/s41558-023-01906-y

Matthew G. Burgess et al, Climate change opinion and recent presidential elections, *Zenodo* (2024). DOI: 10.5281/zenodo.10494414