2025 U.S. STATE EMISSIONS GAPS

With the federal government pulling back many clean energy and environmental protection programs, the role that states can and should play in driving decarbonization is only growing. In 2023, EDF assessed the "emissions gap" between where states need to be to meet emissions goals consistent with the Paris Agreement and where they are expected to be based on current policies. Using updated data, a new gap analysis shows states largely farther away from a Paris-aligned emissions path than they were in the previous analysis.

These findings demonstrate the urgency of ambitious policy in climate leadership states. Closing emissions gaps just among climate leadership states and territories with emissions commitments via participation in the US Climate Alliance would both yield considerable emissions benefits for the country as a whole and provide a model for other states to implement their own decarbonization strategies. Further, the new analysis shows the role that strong state-level policy can play in shielding states' economies from federal actions that would otherwise drive up emissions. States that have in force cap and invest schemes or other robust measures to limit climate pollution generally saw a smaller increase, or in some cases no increase at all, in projected emissions in the new data.

Key Findings

- Our central estimate of the gap between U.S. Climate Alliance (USCA) commitments and projected emissions is 542 MMT in 2030, a 63 MMT or 13% increase on the 2023 analysis. In 2035, the gap is 673 MMT, up 108 MMT from the 2023 analysis.
    - This change is driven in large part by the repeal of the Inflation Reduction Act, with some countervailing effects from decreases to projected methane emissions and increases in projected carbon removals.
    - Without the projected changes to oil and gas methane emissions and carbon removals, the 2030 gap among leadership states would have increased by 153 MMT.
- Nationwide, the gap between projected emissions and levels consistent with the IPPC's recommendations is 1,614 MMT in 2030, up from 1,172 using the 2023 data.
- The cumulative emissions gap for leadership states between 2024 and 2030 is 5,464 MMT up by 558 MMT, relative to the 2023 analysis.
- If climate leadership states were to adopt policies capable of achieving their commitments, they could collectively close the total gap to the US Paris-aligned targets **by a third — 34% in 2030 and 33% in 2035,** moving the country significantly closer to these critical goals.

The Overall Gap

As the chart below shows, the emissions gap facing leadership states still makes up a significant portion of the national gap and closing it would put the U.S. much closer to a sustainable emissions path—closing the overall gap by one-third.

The gap in the leadership states ranges from 493 MMT to 679 MMT in 2030 and from 562 MMT to 862 MMT in 2035. The range of estimates reflects Rhodium's high and low emissions scenarios, based on uncertainty in economic growth, gas prices, and other background conditions.

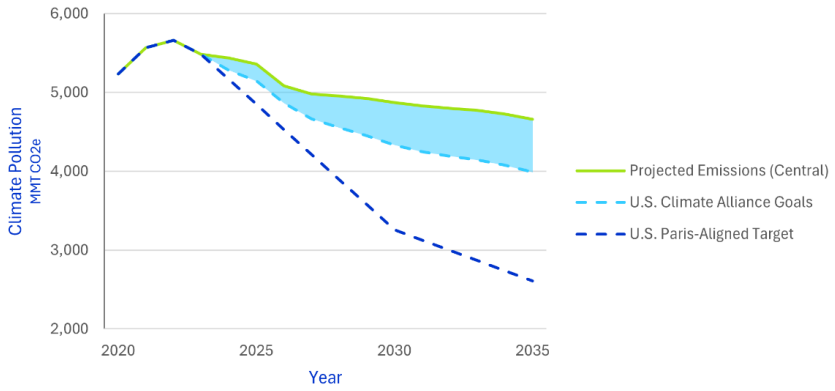

Figure 1: Reductions in U.S. Climate Pollution if USCA States Achieve Goals

Nationwide, the gap ranges from 1,476 MMT to 2011 MMT in 2030 and from 1,699 to 2,633 MMT in 2035. Under the central emissions scenario, reflected in the above chart, if leadership states were to deliver on their climate commitments by 2035 total U.S. emissions projections would shift from 28% below 2005 levels all the way to 39% below 2005 levels.

Changes From Prior Analysis

Using the data from our previous 2023 analysis, the 2030 emissions gap among all leadership states ranges from 300 MMT to 682 MMT and the 2035 gap ranges from 334 MMT to 861 MMT. With the 2025 data, the gap is up to 193 MMT higher in 2030 and up to 228 MMT higher in 2035.

This difference largely reflects the impact of the repeal of clean energy incentives from the Inflation Reduction Act (IRA) and rollback of other federal emissions reduction measures like the Clean Air Act Section 111 rules. But other factors such as increasing electricity demand growth and changes to economic projections also play a role.

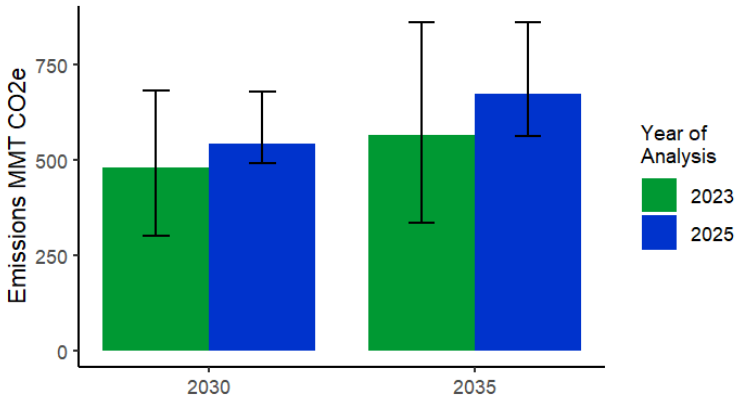

Figure 2: 2030 and 2035 Emissions Gaps: Low and High Estimates

Decreases to projected methane emissions and greater carbon removals counteract the increases in emissions seen in other sectors somewhat. Without the lower methane emissions and greater carbon removals, the 2030 gap among leadership states would be 76 MMT to 291 MMT higher than in the 2023 analysis and the 2035 gap would be 90 MMT to 339 MMT higher than in the 2023 analysis.

Since EDF's last analysis of the gap among leadership states, Louisiana has left the USCA. To account for this, we have adjusted the gap estimates to reflect current USCA membership. While this aspect of changes to our gap estimate does not represent an economically or policy driven shift in emissions projections it presents an additional challenge in charting a sustainable climate future, as a major source of greenhouse gas emissions is no longer a part of a multistate collaborative effort that has committed to deliver on policy solutions to achieve Paris-aligned targets.

The Gap in Key Sectors

The power sector is the lynchpin of near-term pollution cuts, both because meeting existing electricity demand with low-cost wind and solar is one of the fastest and cheapest ways to reduce emissions, and because scaling clean electricity to provide clean energy solutions for transportation, buildings, and industry is an essential strategy for meeting our economy-wide decarbonization goals. Recent forecasts of rising electricity demand highlight the importance of decarbonizing the power sector, as increased load is elevating emissions forecasts in a sector that has seen steady declines over the last 20 years. Yet we need to prepare to nearly triple the demand for electricity while still reducing total emissions, and it's critical to have a policy framework that successfully drives reductions during times of demand growth as well as times of flat demand.

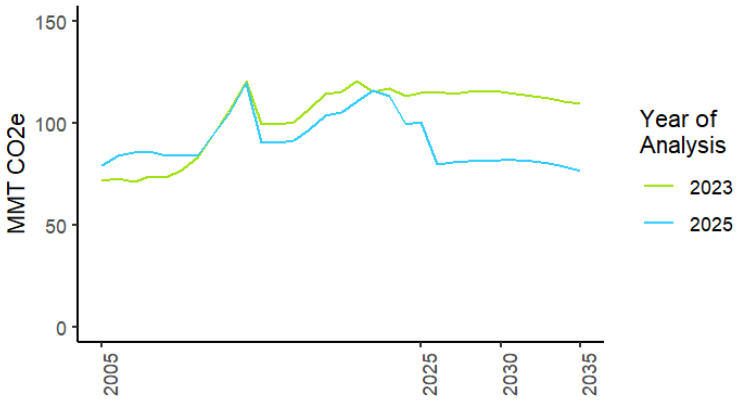

Figure 3: Estimated Oil & Gas Methane Emissions in USCA States

In their central case, Rhodium Group's modeling for Taking Stock 2025 projects power sector emissions among leadership states declining 59% by 2030 relative to 2005 levels based on a cost-optimal response to current policies. There is room for states to do more to take advantage of this critical source of emissions reductions and push for more ambitious policies that *require* declines in emissions, like RGGI that covers 10 USCA states, and ambitious power sector policies elsewhere that have binding 2030 requirements.

Other sectors see some decline on 2005 levels as well, although not at the scale needed to facilitate overall decarbonization in line with the goals of the Paris Agreement. Transportation emissions are expected to fall 20% by 2030 relative to 2005, while industrial emissions drop 21% and emissions from buildings fall 7%. Decarbonizing these sectors is in part downstream of decarbonizing the power sector, although rollback of federal programs targeted at particular sectors will also influence their trajectory over the next decade. Leadership states will need to develop policies that can address all of these areas, such as economywide emissions caps that can push decarbonization wherever it is most cost-effective or targeted incentives to fill the void left by federal retrenchment.

Oil and gas methane should also be an area of focus, as it represents a low-cost, high-impact emissions mitigation measure. The technology to make these sorts of changes is already mature and benefits gas providers in many cases, as it captures gas that would otherwise be lost. The updated gap analysis shows oil and gas methane emissions dropping by 29% in 2030 relative to the prior analysis and 30% in 2035, largely driven by the EPA's 2023 update to subpart OOOO of the Clean Air Act, which imposes emissions monitoring and reduction requirements on oil and gas sources.

As with many other areas of environmental policy, however, the Trump administration has rolled back some progress, casting into doubt the projected decrease in methane emissions. The current administration has delayed implementation of the new OOOO regulations, allowing oil and gas operations to adhere to older, more lenient standards temporarily and extending the timeline for states to submit plans for limiting methane emissions. If the rules continue to be delayed or are rolled back entirely, we would expect a substantial increase in methane emissions relative to our current estimates. Several environmental groups, including EDF, have filed a lawsuit challenging the EPA's delay of the new methane rules, but actions like this demonstrate the importance of states acting quickly to put their own pollution control measures in place.

The Gap in Key States

While most states see an increase in emissions gaps, the pattern of climate leadership states tend to see less of an emissions bump from IRA repeal if they have programs like cap and invest systems in place. Washington and California see smaller changes to their projected emissions than the average for leadership states, despite this analysis not incorporating the impact of California's recent cap and invest extension. The RGGI states also see relatively small changes to their gaps. This points to the importance of robust pollution limits, as such programs can act as a backstop against exogenous shocks like federal rollbacks of environmental regulations and clean energy incentives.

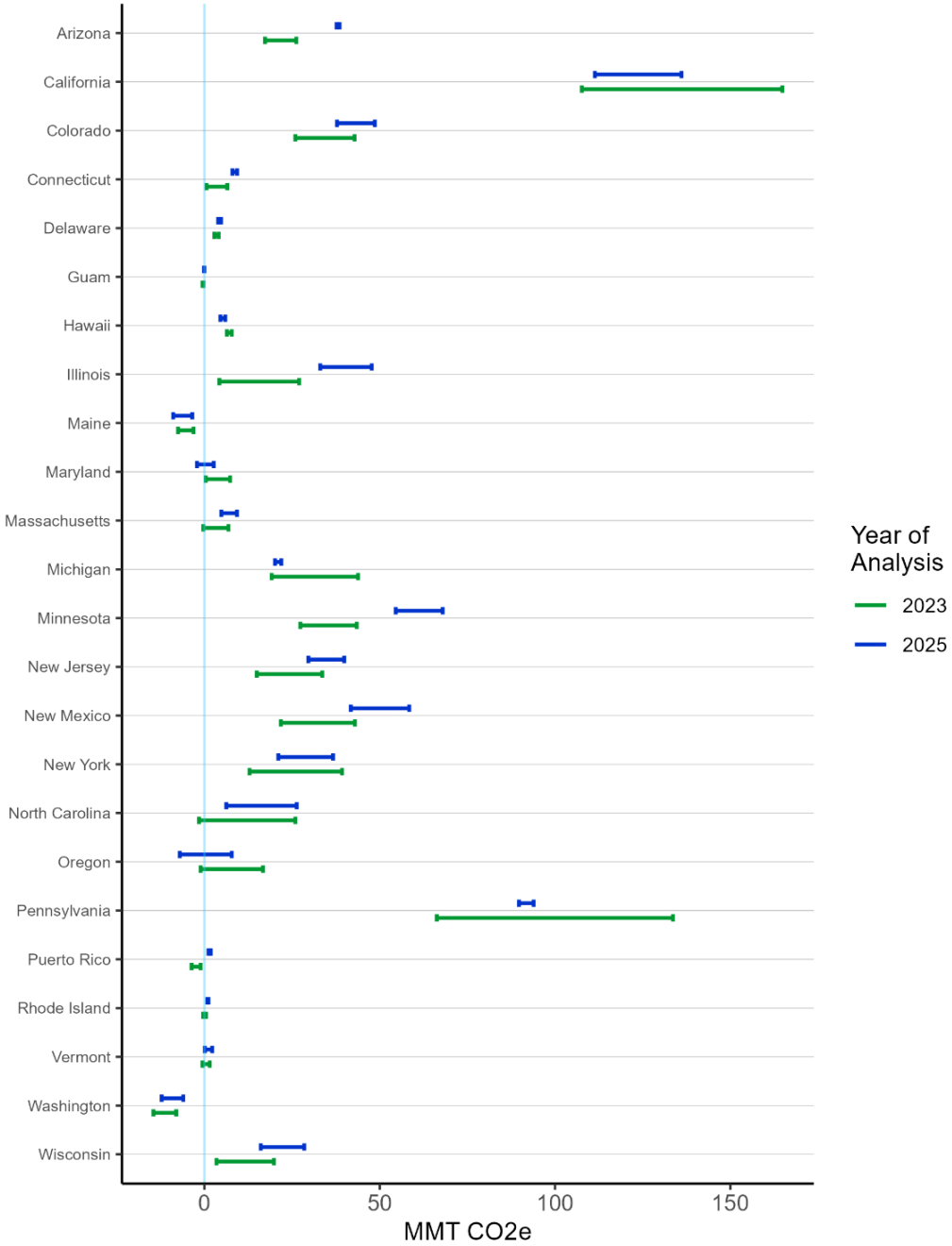

Figure 4: 2030 State Emissions Gaps

Methods Summary

The analysis uses emissions data from Rhodium Group's ClimateDeck, along with EDF's estimates of oil and gas methane emissions. Prior analyses assessed emissions gaps on a gross basis, calculating a gross emissions equivalent to the net emissions target specified in the U.S. NDC. To more reliably compare outcomes between years, this analysis instead calculates gaps on a net basis.

All comparisons between the 2025 analysis and the 2023 analysis are made using net emissions in both cases and using 2025 USCA membership but using the 2023 Rhodium and EDF emissions and removals data to reconstruct emissions gaps reflective of the 2023 analysis.

See the 2023 report for more detail on methodology.

For more information, please contact Pam Kiely, AVP of U.S. Climate, pkiely@edf.org

Environmental Defense Fund
257 Park Avenue South
New York, NY 10010

T 212 505 2100
F 212 505 2375
EDF.org