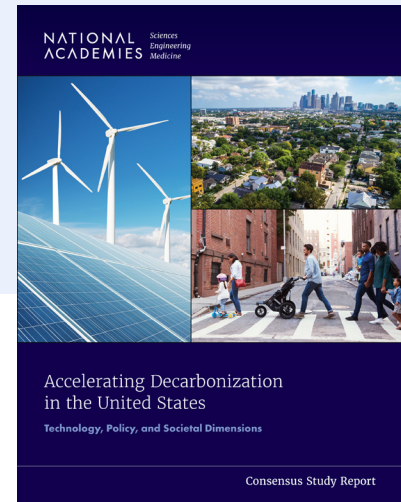


Accelerating Decarbonization in the United States

Technology, Policy, and Societal Dimensions



ECONOMY-WIDE FEDERAL POLICIES AND OVERCOMING THE NATION'S IMPLEMENTATION CHALLENGES

Addressing climate change is essential and possible, and it can help secure a lasting future for all Americans, including improved health and more well-paying jobs. To avoid the worst consequences of climate change and reach the nation's interim goal of 50 percent emissions reduction by 2030 and the ultimate goal of net zero by 2050, it is critical to pursue all opportunities for decarbonization.

The federal government plays a vital role in ensuring the nation achieves these goals.

The National Academies of Sciences, Engineering, and Medicine have released a comprehensive report with sector-by-sector recommendations to guide policymakers on decarbonizing the U.S. economy over the next decade and beyond. The report addresses the technical and societal elements of this necessary energy transition while providing actionable steps toward achieving deep decarbonization. Learn more and download the report at <https://nationalacademies.org/decarbonization-report>.

DESPITE PROMISING PROGRESS, CHALLENGES REMAIN

Through recent legislation like the Infrastructure Investment and Jobs Act (IIJA), the Creating Helpful Incentives to Produce Semiconductors (CHIPS) and Science Act, and the Inflation Reduction Act (IRA), the federal government is set to issue record funding and spur private investment toward clean energy projects over the next decade.

Federal policymakers have also refocused their efforts on energy justice through Executive Orders such as the establishment of Justice40 as official U.S. policy.

This unprecedented investment and renewed focus on equity **provides a real opportunity for the United States to lead the way in global decarbonization efforts.** If federal policies are carried out as intended, the country would achieve emissions reductions close to a 30-year trajectory to net zero, while increasing economic competitiveness, providing high-quality jobs, and improving public health.

However, **these outcomes are far from guaranteed due to significant implementation barriers and gaps in policy.**

Notably, the current policy portfolio is mostly limited to tax incentives and other subsidies. The country's

workforce is unprepared to meet the demands of a clean energy economy and no single body is charged with monitoring the progress of climate mitigation activities.

WITHIN REACH

While the obstacles are many and considerable, there is cause for optimism: the recent policy revolution provides a line of sight to a future where all Americans experience an affordable, fair, equitable, and just energy system and live in a world with reduced impacts from climate change, cleaner air, and better health and employment. In fact, studies estimate that successful implementation of current policy would achieve 70–80 percent of the emissions reductions necessary to reach the 2030 emissions target.

KEY RECOMMENDATIONS

The committee's recommendations provide advice on mitigating risks and overcoming barriers in policy implementation, as well as closing gaps in current legislation, while meeting objectives related to emissions reduction, equity and fairness, health, employment, and public engagement and acceptance. For the United States to realize its net-zero emissions goal and ensure that all Americans can benefit from an equitable energy system, **decision makers should follow these evidence-based recommendations to strengthen the federal decarbonization policy portfolio.** There is a narrow window for action to stay on track to meet 2030 and 2050 emissions targets.

NECESSARY ACTIONS	ANTICIPATED RESULTS
<p>To strengthen existing legislation—and diversify the policy portfolio—Congress should enact the following policies:</p> <ul style="list-style-type: none"> • A greenhouse gas budget for the U.S. economy • An economy-wide tax on carbon emissions, starting at \$40/tCO₂ and rising 5 percent per year, alongside other policies to protect households and American firms 	<p><i>The United States achieves emissions reductions and leads the way in global decarbonization efforts.</i></p> <p><i>The U.S. energy system is more resilient and adaptable in the face of political risks and external events.</i></p>
<p>To ensure decarbonization efforts are efficient, effective, and can adapt as needed, Congress should authorize and fund the Office of Management and Budget to develop guidance for federal agencies on evaluating decarbonization policy spending and impacts, including assessment of systems-level and cross-sector impacts.</p>	<p><i>There is increased successful implementation of new clean energy projects due to transparent and accessible public engagement and adaptive management of the policy portfolio.</i></p>
<p>To track and communicate decarbonization progress, Congress should authorize and fund a single enduring entity to collect, aggregate, interpret, and communicate publicly accessible descriptive statistics about the pace and scale of U.S. decarbonization.</p>	

The report recommends that these economy-wide policies be supported by a range of sector-specific policies at the federal and subnational levels. For a full list of findings and recommendations, download the report at <https://nationalacademies.org/decarbonization-report>.

COMMITTEE ON ACCELERATING DECARBONIZATION IN THE UNITED STATES: TECHNOLOGY, POLICY, AND SOCIETAL DIMENSIONS

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FOR MORE INFORMATION

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