



Zero, Then Negative

The Congressional Blueprint
for Scaling Carbon Removal

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Carbon180

ABOUT CARBON180

Carbon180 is a new breed of climate-focused NGO on a mission to fundamentally rethink carbon.

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To learn more about any of the recommendations in this report, email policy@carbon180.org.

Executive Summary

The carbon removal field has undergone incredible transformation in the last five years. What began as a highly niche and neglected set of climate solutions has since become a core component of climate action, with growing recognition from an ever-broader coalition of one simple fact: We simply cannot meet our global climate goals without carbon removal. To solve the climate crisis, we must push past zero and get to negative. Building upon recent progress, Congress has a singular opportunity to catalyze the next wave of transformation for carbon removal.

Despite its promise and urgency, carbon removal solutions lag significantly behind other vital approaches such as electric vehicles and renewable energy. The rapid pace of change over the last few years has opened a rare window to double down on our momentum and, with targeted and ambitious investments from the federal government today, far outpace that growth in the coming decades. To do this, we must come together around transformational policies that can address current barriers to full-scale carbon removal.

Current barriers to full-scale carbon removal

1. High costs for nascent carbon removal technologies, compounded by insufficient research, development, and demonstration (RD&D) funding
2. Low demand for removal, associated products, and co-benefits, keeping private sector capital sidelined
3. Inadequate regulations ensuring the safe, sustainable, and equitable deployment of carbon removal projects
4. Insufficient infrastructure to transport and store CO₂ and deploy nature-based restoration solutions
5. Unclear guidelines on carbon monitoring, reporting, and verification for land-based approaches

This report outlines the key actions Congress should take over the next one to three years to rapidly develop and deploy carbon removal. The recommendations in this report focus on how we can realize carbon removal’s full potential as a critical climate solution and also deliver on its environmental, economic, and social co-benefits. With the tools at its disposal – RD&D, deployment incentives, infrastructure, and regulations – the federal government is poised to reinvent the US economy, drive forward a new industry, and put our climate and communities first.

LAND-BASED APPROACHES

Land-based carbon removal approaches, many of which are relatively inexpensive and already being deployed, can provide myriad environmental and economic co-benefits. With an integrated approach to assessing and deploying these solutions, Congress can build a durable carbon removal economy that advances environmental justice (EJ), optimizes carbon removal deployment, and supports safe and dignified job creation.

1. Increase and expand RD&D at the Department of Agriculture (USDA) to scale soil carbon storage across US agricultural systems
2. Adjust the federal crop insurance program to encourage the adoption of conservation practices
3. Expand financial and technical assistance to drive adoption of soil carbon practices
4. Pilot a federal land link program at USDA to promote soil carbon storage and support socially disadvantaged producers
5. Expand public forests by improving US Forest Service (USFS) programs
6. Establish dedicated funding at the Department of the Interior (DOI) and USDA to protect and restore existing public forests
7. Establish dedicated funding streams to conserve and restore private forest lands
8. Establish a Civilian Climate Corps to address climate change and provide employment opportunities for US communities
9. Expand the Agricultural Conservation Easement Program-Wetlands Reserve Easements (ACEP-WRE) and Conservation Reserve Program (CRP) to bolster wetland conservation
10. Expand the Forest Inventory and Analysis (FIA) program to improve centralized forest carbon data activities
11. Invest in innovation grants and life cycle assessments (LCAs) to advance durable emerging wood technologies
12. Invest in social science research to identify and reduce barriers to participating in USDA assistance programs
13. Expand research and governance for marine-based carbon removal through federal program creation and international cooperation

TECH-BASED APPROACHES

Technologies that pull carbon out of the atmosphere have the potential to remove gigatons of CO₂, create hundreds of thousands of jobs, and contribute significantly to economic growth. Through the passage of forward-thinking and comprehensive legislation, Congress has the capacity to propel these solutions to realize climate goals and lead the creation of a vibrant market.

1. Utilize federal procurement to drive the deployment of direct air capture (DAC), bioenergy with carbon capture and storage (BECCS), and carbontech
2. Develop comprehensive demonstration and deployment strategies within the Department of Energy (DOE) to complement research and development (R&D) efforts
3. Establish a federal DAC siting research initiative to support equitable and safe deployment
4. Create a DAC market, policy, and people innovation prize
5. Enhance and expand the 45Q tax credit for DAC
6. Create an investment tax credit for DAC
7. Invest in DAC-to-fuel pathways
8. Pre-permit geologic storage on federal land
9. Update the Class VI underground injection well permitting process to enable more rapid development of geologic carbon storage
10. Create a pipeline development task force to site pipelines connecting CO₂ sources to storage facilities
11. Create an RD&D program for enhanced CO₂ mineralization

CROSS-SOLUTION APPROACHES

Carbon removal solutions have traditionally been developed and deployed in silos, but with a host of opportunities and challenges across the industry, it is crucial to develop policy that utilizes expertise across federal agencies.

1. Expand and pass the CREATE Act to ensure a comprehensive, cross-agency carbon removal strategy
2. Codify the Interagency Working Group on Environmental Justice (EJ IWG) and strengthen requirements for the integration of EJ across federal agencies
3. Create an interdisciplinary roadmap for BECCS deployment options
4. Include biomass-based carbon removal products in the Value-Added Producer Grant program

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recommendations in this report,
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