Congressional Action Needed to Accelerate Ocean-Based Carbon Dioxide Removal Solutions

THE FUNDING ISSUE

Scientists around the world are evaluating whether and which ocean-based carbon dioxide removal (oCDR) approaches can safely and permanently reduce atmospheric CO_2. Philanthropy and the private sector are bringing important resources to this effort, but the government also has a critical role to play. To ensure that technologies are safe, effective, and properly regulated, the government must provide vital support for early innovation, advancement toward commercial viability, and knowledge development.

oCDR technologies are vital to addressing the global climate crisis and represent a major business opportunity. Responsible regulation and strategic research funding will benefit U.S. jobs and investments, resulting in a strong and sustainable domestic industry. There is also an opportunity to strengthen the U.S. as a global leader in developing and exporting technologies to address the climate crisis.

THE ECONOMIC OPPORTUNITY

A report from Oxford University's Smith School of Enterprise and the Environment predicts that six to ten billion metric tons of CDR per year would be needed to meet the widely agreed international goal of net zero greenhouse emissions by 2050. Based on these estimates, McKinsey and Company predicts that the CDR market could be worth up to $1.2 trillion by 2050.

For the industry to meet this increased demand, McKinsey estimates that CDR capacity would have to reach 0.8 to 2.9 billion metric tons per year by 2030. This capacity is 3-10 times the amount that major industry players expect by that time, based on current levels of investment and technology development.

CONGRESSIONAL LEADERSHIP NEEDED

Congress can take three significant steps for FY25 to reduce the investment gap:

1. Increase funding for DOE's cross-cutting carbon dioxide removal initiative to $353 million, of which no less than $100 million should be dedicated to advancing oCDR.

2. Provide at least $30 million to NOAA for external oCDR research, development, and demonstration grants.

3. Maintain funding for DOE's ARPA-E program, which should allocate funds commensurate with the need for ongoing improvements in modeling and technology development for monitoring and verifying the effects and efficacy of oCDR.

Building on the foundation set over the last two fiscal years, the funding requested by Carbon to Sea for FY25 will enable oCDR to contribute substantially to the goal of achieving gigaton-scale capacity for safe and effective CDR by the end of the decade.

Full Report available at: **www.carbontosea.org/FY2025**