

RESCUE OCEANS ACT

Removing and Sequestering Carbon Unleashed in the Environment and Oceans Act

Led by Senators Brian Schatz (D-Hawai'i) and Lisa Murkowski (R-AK),
Representatives Suzanne Bonamici (D-OR) and Buddy Carter (R-GA)

Accelerating carbon dioxide removal. As governments, corporations, and others commit to decarbonization, carbon dioxide removal (CDR) presents a major opportunity for American-led innovation. However, many CDR technologies are still in early stages of development, and additional resources and research are necessary to develop and test technologies; protect ecosystems; ensure reliable and transparent monitoring, reporting, and verification; and engage with coastal communities as CDR is studied and potentially deployed.

Working with the ocean. As Earth's largest natural carbon sink, the ocean absorbs 30 percent of global carbon dioxide (CO₂) emissions¹ and is estimated to hold roughly 50 times more CO₂ than the atmosphere.² Marine carbon dioxide removal (mCDR), a portfolio of ocean-based CDR approaches, aims to enhance the ocean's role in drawing down atmospheric CO₂. In 2024, several institutions called on Congress to pass legislation and provide funding for research and development (R&D) of mCDR approaches.³ Some U.S. mCDR companies have launched pilot projects abroad, where regulatory and economic conditions are more favorable.⁴ The United States can and should champion the research to lead innovation of mCDR technologies.

ReSCUE Oceans will enable the United States to be a leader in mCDR R&D by—

Spurring innovation. New research grants direct federal resources to the National Oceanic and Atmospheric Administration (NOAA) and other agencies to study the efficacy and safety of various mCDR technologies, including impacts on ecosystems and coastal communities. A framework for establishing field study sites creates clarity and opportunities for researchers and communities alike to accelerate American innovation.

Ensuring environmental and community safeguards. Robust monitoring goals create guardrails for mCDR research to collect critical environmental data and inform development, regulation, and scientific evaluation of techniques. A code of conduct, transparent process for siting research areas, opportunities for public comment, and terms and conditions for research foster meaningful participation and engagement with communities who rely on the ocean at every step.

Strengthening coordination. An interagency working group co-chaired by NOAA and the U.S. Department of Energy codifies coordination on mCDR to strengthen federal collaboration and avoid duplication. Directives for the National Science Foundation, the National Aeronautics and Space Administration, and the National Institute of Standards and Technology create opportunities for these agencies to support NOAA in studying, measuring, and verifying mCDR techniques.

¹ Gruber, Nicolas *et al.*, 2019. [The oceanic sink for anthropogenic CO₂ from 1994 to 2007](#). *Science* 363, 1193-1199.

² FriedlinSgstein, Pierre, *et al.*, 2022. [Global carbon budget 2021](#). *Earth System Science Data* 14.4: 1917-2005.; Buesseler, Ken, *et al.*, 2024. [Next steps for assessing ocean iron fertilization for marine carbon dioxide removal](#). *Frontiers in Climate* 6: 1430957.

³ See: [mCDR Letter to Congress](#) (2024, August).

⁴ Ewe, K. (2024, March). ["Singapore to Build World's Largest Facility to Boost Carbon-Removal..."](#) *Time Magazine*.