Bipartisan Policy Momentum for mCDR

May 2025



Rainey Center





Both Republicans and Democrats support increasing the federal government's focus on marine carbon dioxide removal (mCDR).

In 2024, it was the focus of one of the most bipartisan Congressional hearings of the year, hosted by Rep. Max Miller (R-OH) — Chair of the House Science, Space, and Technology Subcommittee on Energy. There are a number of specific actions the federal government can take to advance mCDR, including permitting reform and cost-effective investments in basic research.

A Roadmap for Continued American Leadership on mCDR

The U.S. government has recently made smart, targeted investments in mCDR totaling $61.5 million, including:

- $24.3 million in grants from the interagency National Oceanographic Partnership Program
- $35.8 million in grants awarded by DOE's ARPA-E program for research and development of marine carbon dioxide removal techniques
- Initial investment of $35 million for the world's first government CDR offset procurement project
- Nearly $2 million in small grants from DOE's Office of Fossil Energy and Carbon Management

Between 2022 and 2024, the federal government released three major reports that lay out a path forward for maintaining American leadership on mCDR:

- In 2022, the National Academies of Science published a Research Strategy for Ocean-based Carbon Dioxide Removal and Sequestration
- In 2023, the federal government released an Ocean Climate Action Plan to amplify the need for further exploration of mCDR approaches like ocean alkalinity enhancement (OAE)
- At the end of 2024, the federal government put forward a National Marine Carbon Dioxide Removal Research Strategy to chart a specific path forward for continued support for mCDR

Targeted Investments with Outsized Returns

Federal investment in mCDR is minimal, especially compared to the billions of dollars being spent to advance CDR more broadly.

The incoming administration has an opportunity to right size investments in mCDR, which are low cost and high potential, and as a result, unlock philanthropic and private sector spending.

According to the 2022 National Academies report, funding for mCDR R&D needs to rise to around $301.5 million annually, for a ten-year investment of $2.41 billion, to activate mCDR technologies to deliver safe and effective carbon removal at scale.

Congress could advance mCDR funding in three common sense ways:

1. Increase funding for DOE's cross-cutting carbon dioxide removal initiative to $353 million, of which not less than $100 million should be dedicated to advancing mCDR.
2. Provide not less than $30 million to NOAA for external mCDR 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 mCDR.

Efficient Permitting is Essential

Current policy and permitting infrastructure was not created with the regulation of mCDR in mind.

For mCDR to contribute to net-negative emissions on the timeline and at the scale relevant to address the climate crisis, federal regulatory agencies need to prioritize efficient permitting for field research, demonstrations, and monitoring, in order to evaluate the efficacy, additionality, durability, and environmental safety of various mCDR approaches.

Permitting reform can ensure that these research efforts are as safe, responsible, and efficient as possible. Projects with sound research design and positive net impact should advance, while projects with likely negative impacts and/or projects unlikely to meet federal standards should be provided feedback early in the review process.

Given the number of laws and federal agencies involved, there is a need to create a standing interagency working group on mCDR to:

+ Issue integrated guidance to assist project developers in project design and permit application
+ Provide a one-stop initial point of contact for field project developers
+ Improve communication and ensure coordination, both among the agencies and between the agencies and project developers
+ Minimize duplication and delays in permitting



Rainey Center

(202) 350-1689
info@raineycenter.org
raineycenter.org