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Carbon Dioxide Removal Investment Act

U.S. Senators Michael Bennet (D-Colo.) and Lisa Murkowski (R-AK)
November 2024

Carbon dioxide removal (CDR) is critical to meeting midcentury climate goals. According to the [National Academies](#), by 2050, 10 billion tons of carbon dioxide will need to be removed from the atmosphere every year globally. This includes 1-2 billion tons per year in the U.S. alone, even assuming ambitious emission reductions.

Numerous CDR approaches that could contribute to the needed level of removal are at various stages of development. These range from technological solutions like direct air capture (DAC), to natural solutions like tree planting, to hybrid solutions harnessing minerals, biomass, or the oceans. These approaches are at varying levels of readiness and have various limitations of cost and scale.

Government-funded research and development (R&D) is needed to advance CDR but is not sufficient on its own to drive investment and scale up these approaches. The one large-scale federal incentive that includes CDR, the 45Q tax credit, is limited to a subset of CDR approaches. Additional federal policy support is needed to provide a wider range of CDR technologies with a strong incentive for innovation and deployment.

The Carbon Dioxide Removal Investment Act would establish a new technology-neutral tax credit designed to jumpstart the CDR industry by providing support for CDR approaches that are ready to be deployed today, while also creating a pathway for those still in development. Its technology-neutral approach would ensure the credit is available to a wide range of CDR approaches as long as they meet key criteria. The legislation would encourage continuous improvement, high standards, and success of the best technologies by supporting a variety of CDR approaches without picking winners. It would also position the U.S. as a world leader in CDR, offering substantial business and jobs opportunities across the country.

Specifically the bill would:

- Establish a new technology-neutral production tax credit for qualifying CDR approaches that meet certain criteria (\$/net ton of carbon dioxide removed from the atmosphere);
- Set high standards and environmental guardrails for qualifying CDR approaches such as requirements for:
 - Carbon impact: net-negative based on cradle-to-grave life-cycle greenhouse gas emissions assessment;
 - Permanence of storage (1,000+ years);
 - Measurability of net carbon removal with high confidence based on demonstrations and field trials; and
 - Additional criteria for biomass- and marine-based CDR;
- Direct expert agencies to determine eligible CDR approaches based on the criteria set out in the bill; and
- Not be stackable with the Section 45Q tax credit, to avoid double dipping.