

Introduction to the CDR Meta-Map on Policy

Puro.earth operates in the voluntary carbon market. We are always monitoring developments in legislation and rules. Below we have attempted to list the key mechanisms which may support the supply and/or demand for durable carbon removal. We have focused on where Governments and voluntary rule-setters are developing certification, and compliance markets. We haven't included targets or political communications nor research and development funds, or innovation funds. We refer to the policy tracker from Carbon Gap, work from Rocky Mountain Institute,. World Business Council for Sustainable Development, USA mapping from Carbonfuture, Climate Policy Radar, policy briefs from Carbon Business Council. The background map is from the World Resources Institute setting out which countries have durable carbon removals in their Long Term Strategies and we have reviewed their US State level policies report. The definition of durable carbon removal is taken from the IPCC and covers biochar, Bio-Energy Carbon Capture and Storage (BECCS), Direct Air Capture and Storage (DACS), Carbonated Materials, and Enhanced Rock Weathering (ERW). The table is an incomplete list of policies to enable demand for durable carbon removals, we look forward to adding to this list and receiving your feedback.

Where?	Initiative	Status	Methods included	Relevance for durable carbon removals
Australia	Australia Carbon Credit Unit (ACCU) scheme	Implemented, under review	BECCS, DACS, biochar	Australia's ACCU scheme does incorporate some forms of carbon dioxide removal, especially via land sector projects and geological storage. It remains more focused on reducing emissions rather than removing existing CO2. The Clean Energy Regulator has identified biochar as an area for future investigation and set up a methodology work group.
Canada	CDR Procurement	In implementation	Durable CDR	The federal government will purchase at least CAN\$10 million in carbon removal services between now and 2030 to help reach its goal of netzero emissions in Government operations by 2050.
Canada	Investment Tax Credit	Implemented	DACS	Canada proposed an investment tax credit for capital invested in carbon capture, utilization, and storage projects, including direct air capture.
Canada	Greenhouse Gas Offset Credit System	In implementation	DACS	Rules for Canada's GHG offset system are being designed to enable certifying direct air capture projects amongst other methods.



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Canada – British Colombia	Low Carbon Fuel Standard	Implemented	DACS	The LCFS has two main requirements implemented to reduce B.C.'s reliance on non-renewable fuels, reduce the environmental impact of transportation fuels, and spur growth in the clean fuels industry in B.C.
Denmark	Negative Emissions CCS Fund	Implemented	BECCS	The NECCS fund solely provides support for the capture and storage of biogenic CO ₂ , in order to achieve negative reductions.
EU	Carbon Farming Carbon Removal	Implementation	Durable CDR	The first EU-wide voluntary framework for certifying carbon removals, carbon farming and carbon storage in products across Europe. By establishing EU quality criteria and laying down monitoring and reporting processes, the CRCF Regulation will facilitate investment in innovative carbon removal technologies, as well as sustainable carbon farming solutions, while addressing greenwashing.
EU	EU Emissions Trading System	Operational and under review	Not yet known	The EU ETS states that the EU Commission needs to consider, "how negative emissions resulting from greenhouse gases that are removed from the atmosphere and safely and permanently stored could be accounted for and how those negative emissions could be covered by emissions trading, if appropriate, including a clear scope and strict criteria for such coverage, and safeguards to ensure that such removals do not offset necessary emission reductions in accordance with Union climate targets"
EU	EU Green Claims Directive	Negotiation	All durable CDR	New criteria to stop companies from making misleading claims about environmental merits of their products and services. This looks at how corporate claims can use carbon credits on their pathway to net-zero emissions.
International	Paris Agreement Crediting Mechanism	In implementation	All durable CDR	Standard for removals have now been agreed and the Paris Agreement crediting mechanism (Article 6.4 mechanism) can move into implementation.
International	Paris Agreement - Article 6.2	Operational	All durable CDR	Article 6.2 is designed to encourage bilateral, government-to-government agreements or to other international mitigation purposes, such as international aviation and internation maritime sectors. International Emissions Trading Association visualisation of Article 6.

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International	Carbon Offsetting and Reduction Scheme for International Aviation (CORSIA)	Operational	All durable CDR	Removals in scope and carbon-crediting programs need to apply to be eligible. First phase 2024 -2026 is voluntary.
International	International Organization for Standardization (ISO) Net Zero Standard	Negotiation	Potentially all CDR	The purpose of the Guidelines was to facilitate organizations to create comprehensive net zero strategies by providing them with credible best practice. The standard will give the public greater confidence and guard against greenwashing by setting out robust guidance and requirements offering the potential to verify the credibility of claims.
Japan	<u>GX-ETS</u>	Negotiation	Potentially BECCS & DACS	To support the green transformation (GX), the Ministry of Economy Trade and Industry (METI) has a voluntary GX-Emissions Trading System. Japan has announced 5% of eligible international credit types – especially if CCUS, blue coastal, BECCS, and DACS. METI have drafted a <u>DACS</u> protocol.
Sweden	Reverse auction for BECCS	State aid granted	BECCS	Reverse auction for BECCS.
UK	Business models	Discussed not yet proposed.	BECCS and DACS	A Negative Emissions Contract for Difference (CfD) model to be the most effective approach to deliver our policy objectives. It would provide familiarity to investors given the use of similar frameworks in other low-carbon sectors, maximise value for money, and allow an efficient transition to a market-led framework and reduced government support over time
UK	Emissions Trading System	Operational, under review	Durable CDR	UK Gov has consulted on how to include engineered GGRs under the UK ETS and we await the response. Possible inclusion from 2028.
UK	Certification	Discussed, not yet proposed.	All	BSI has been appointed to suggest minimum thresholds for certification of CDR.

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USA - California	Low Carbon Fuel Standard	Operational	DACS	The Low Carbon Fuel Standard is designed to decrease the carbon intensity of California's transportation fuel pool and provide an increasing range of low-carbon and renewable alternatives, which reduce petroleum dependency and achieve air quality benefits. DACS is a compliance pathway.
USA – Federal	Regional Direct Air Capture Hubs	In Implementation	DACS	The Four Regional Direct Air Capture Hubs is designed to establish a program under which the Secretary shall provide funding for eligible projects that contribute to the development of four regional direct air capture hubs.
USA – Federal	2023 Farm Bill	Extended till 2024	Biochar	The 2023 Farm Bill was re-authorised in 2023, more information from the Carbon Business Council here , "Hundreds of millions of tonnes of crop residues are burnt, or left to decompose, in the U.S. annually— representing a significant re-emission of carbon dioxide into the atmosphere. It is critical to leave some crop residues on the field to maintain soil health, however crop residues that are burnt can more beneficially be employed as feedstock for biomass carbon removal and storage (BiCRS) approaches, including biochar carbon removal (BCR),"
USA – Federal	Inflation Reduction Act	In Implementation	BECCS and DACS	Up to \$180/tCO2 tax credit.
USA – Federal	Carbon Dioxide Removal Purchase Pilot Prize	In implementation	DACS Biomass with carbon removal and storage Enhanced weathering and mineralization Planned or managed carbon sinks	The CDR Purchase Pilot Prize represents the first time the United States federal government will purchase high-quality carbon removal credits from commercial-scale activities
USA -Federal	Voluntary Carbon Dioxide Removal Purchasing Challenge	In implementation	Durable CDR	Thid Challenge will call on external organizations to join DOE in purchasing high-quality carbon dioxide removal credits, following the Department's recent commitment to procure \$35M through the Carbon Dioxide Removal Purchase Pilot Prize



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USA - Federal	Carbon Dioxide Removal Leadership Act	Negotiation	Durable CDR	The CDR Leadership Act would require the U.S. Department of Energy (DOE) to remove and store carbon dioxide emissions using direct air capture or other technology-based carbon removal solutions. DOE may enter into long-term contracts to obtain these services. This would create an initial market and a strong investment signal for CDR projects.
USA – Federal	Carbon Dioxide Removal Investment Act	Negotiation	Durable CDR	The bill proposes a credit of \$250/tCO2 for all approaches except for BECCS, which would receive \$110/tCO2. Because BECCS produces energy, which provides revenue, it does not require as high a level of support. Importantly, this tax credit would be based on net carbon accounting. All emissions associated with removal and sequestration processes need to be subtracted from the gross amount of CO2 sequestered to yield the net amount sequestered — and only this net amount would receive credits.
US - Massachusetts	Carbon Dioxide Removal Leadership Act	Negotiation	DACS and other methods	It creates a reverse auction program where the Massachusetts Clean Energy Center will annually commit to purchasing a minimum amount of verified carbon dioxide removal from qualified bidders. The program has several key provisions, including requiring a portion of the annual removal target to be met by small-scale and long-duration (1,000+ years) projects, setting a maximum average price per ton that decreases annually, and mandating community engagement and environmental justice assessments for proposed projects.
USA - Oregon	<u>Clean Fuels</u> <u>Program</u>	Operational	DACS	The Clean Fuels Program is one of Oregon's seeks to address the state's contribution to global climate change. This program has made significant strides in reducing greenhouse gas emissions from Oregon's transportation fuels, such as gasoline and diesel
VCM rule- setters	Integrity-Council for the Voluntary Carbon Market (IC- VCM) Core Carbon Principles	Operational, being reviewed	All CDR	To ensure the voluntary carbon market accelerates a just transition to 1.5°C, the Assessment Framework sets out the detailed criteria we use to assess whether carbon-crediting programs and Categories of carbon credits meet the Core Carbon Principles (CCPs). It sets a robust, achievable threshold that aims to raise standards across the voluntary carbon market to a consistent level of quality.



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VCM rule- setters	VCM Markets Integrity Initiative – (VCMI) Claims Code of Practice	Operational, being reviewed	All CDR	The VCMI Claims Code of Practice is now ready for use and companies can directly make claims against it. We encourage all businesses to show ambition, make a claim, and accelerate global net zero.
VCM rule- setters	Science-Based Targets Initiative (SBTi) – Net-Zero Standard	Operational, being reviewed	Permanent CDR	The next major output of the Corporate Net-Zero Standard revision will be the draft Standard for consultation, which is expected by the end of 2024. This will be followed by a public consultation. The SBTi invites all stakeholders to participate and contribute their views.