

Organizing Framework for Integrated Carbon Removal

Integration → Industry ↓	Trade CDR credits (e.g. to offset regulatory requirements)	Co-locate with shared infrastructure (inc. feedstock and wastes)	Physically embed removal processes in ongoing operations
Heavy industrials (steel, cement, chemicals)	The US Foreign Pollution Fee Act , which aims to reduce carbon-intensive imports to the US, allows for CDR offsets.	Industrial facilities are built on waterways with high volume outfalls, which can serve as a transport solution or a storage solution (e.g. aq. bicarbonate.)	Biochar could be integrated with steel production .
Mining	-	DAC co-located with mine tailings for ex situ mineralization.	Critical minerals recovery and tailings remediation with CO2 storage.
Fossil fuels and petrochemicals	DAC is an eligible technology in California's Low-Carbon Fuel Standard .	US DOE's CarbonSAFE program supports the development of shared CO2 transport infrastructure.	Fossil fuel producers inject CO2 for enhanced oil recovery.
Waste management	Waste-to-energy facilities with CCS could generate BECCS credits under the EU CRCF (pending ETS integration).	Cities generate waste that can be stored, rather than landfilled .	Carbonate can replace caustic for pH management and improved carbon removal in wastewater facilities .
Construction and building materials	-	DAC benefits from air flow and could be co-located with existing HVAC systems.	Recarbonation of concrete (inc. demolition waste) can be enhanced to accelerate carbon removal.
Tech (inc. data centers)	-	DAC using waste heat .	-
Agriculture and forestry	-	Agricultural and forestry residues can be stored , rather than burnt or landfilled.	Silicate and carbonate weathering can be used to manage soil pH and improve crop yield .