

Center for Carbon Removal (CCR) wants to commend CARB for exploring additional deep decarbonization strategies in the transportation sector and beyond that involve carbon capture and storage (CCS) and carbon removal (i.e. “negative emissions”) pathways. CCR has three recommendations for how CARB can advance such CCS pathways in the future.

1. Approve the Carbon Capture and Storage (CCS) quantification methodology (QM) currently under consideration for the LCFS. Approving the finalized QM is an essential step for all CCS projects participating in CA deep decarbonization programs. This rule is broadly supported by industry and environmental groups alike, and it is essential to have this rule in place as a precondition for CCS projects to support the LCFS and any other deep decarbonization effort in CA.

2. Work to expand the CCS quantification methodology to other sources beyond fuel refining, including power sector, other heavy industry, and direct air capture. Expanding the scope of CCS’s applicability as widely as possible would maximize its potential mitigation impact. Applying the QM to power sector programs like cap-and-trade and the potential for 100% clean energy standards, procurement policies like Buy Clean, and other future programs targeted heavy industrial decarbonization in CA as appropriate would help advance CCS as a deep carbonization tool. Including language about how the QM can work with direct air capture systems -- which are promising technologies to use excess clean energy to produce carbon-neutral transportation fuels and negative emissions -- can also help CA rapidly transition to a new carbon economy that sequesters more carbon than it emits.

3. Apply for state primacy over federal EPA Class VI Underground Injection Control (UIC) permitting to increase robustness of carbon storage monitoring and verification and to facilitate project developing by reducing the number of permits needed for CCS projects.

- Class VI permits are encouraged by the CCS QM, both through the adaptive permitting process and explicitly in the risk formula for calculating the ‘buffer account’ obligations.
- Federal UIC permitting and California regulation under LCFS create potential for ‘double regulation’. Creating state-based regulations for UIC permitting would reduce regulatory risk to CCS project developers while furthering the goal of carbon mitigation.
- While creating a state-based alternative to Class VI permitting is not within CARB’s jurisdiction, CARB could help encourage and support the California Department of Conservation, Division of Oil, Gas, and Geothermal Resources, who would be the regulator.
- Class VI primacy was recently granted to North Dakota. Wyoming has also applied. Those states provide best practices in terms of applying for primacy from US EPA.

Sincerely,

Noah Deich
Executive Director
Center for Carbon Removal

Dr. Matt Lucas
Associate Director of CCUS Technology
Center for Carbon Removal