August 16, 2021

California Air Resources Board

1001 I Street

Sacramento, California 95814

California Natural Resources Agency

1416 9th Street

Sacramento, California 95814

**RE: Public Workshop on 2022 Scoping Plan Update – Engineered Carbon Removal Technical Workshop**

The California Carbon Capture Coalition (Coalition) appreciates the opportunity to submit comments to the California Air Resources Board (CARB) and the California Natural Resources Agency (CNRA) in response to the August 2, 2021 Public Workshop on the 2022 Scoping Plan Update – Engineered Carbon Removal.

The California Carbon Capture Coalition includes a number of leading industries and hundreds of thousands of workers in the state that are critical to successful climate action in California. We are committed to supporting California’s efforts to reduce greenhouse gas (GHG) emissions in line with scientifically-based targets in cost-effective ways that drive technology and create and maintain high quality jobs and robust economic growth in the state.

CCUS technologies are being safely deployed at multiple locations across the world today. These technologies are effectively working to reduce emissions across a range of industries in increasingly cost-effective and innovative ways. California is uniquely positioned to benefit from CCUS in ways that provide significant and lasting greenhouse gas emissions reductions and support tens of thousands of high-quality jobs. The 2022 Climate Change Scoping Plan Update will play a pivotal role in charting California’s path to achieving the state’s 2045 carbon net-neutrality goal. The plan must lay out a clear and comprehensive policy, regulatory and economic framework for CCUS in California to maximize the benefits these technologies can deliver to state climate efforts.

**California will not achieve its climate goals with CCUS**

Achieving California’s climate goals will require significant and rapid deployment of CCUS technology. Numerous recent expert analyses have identified CCUS as a critical component of successful climate action strategies globally, nationally and in California. Leading analyses, including those from the [Intergovernmental Panel on Climate Change](https://www.ipcc.ch/sr15/), the [International Energy Agency](https://www.iea.org/reports/net-zero-by-2050), the [Energy Futures Initiative](https://static1.squarespace.com/static/58ec123cb3db2bd94e057628/t/603d3bd74d006a4004a9a88b/1614625758081/CCUS+Workshop+Summary+030121.pdf), [Stanford University](https://sccs.stanford.edu/sites/g/files/sbiybj7741/f/efi-stanford-ca-ccs-full-rev1.vf-10.25.20.pdf), [Lawrence Livermore National Laboratory](https://www-gs.llnl.gov/content/assets/docs/energy/CA_CCS_PermittingReport.pdf), [UC Berkeley and UCLA](https://www.law.berkeley.edu/wp-content/uploads/2020/12/Capturing-Opportunity-December-2020-1.pdf), and [Energy & Environmental Economics](https://ww2.arb.ca.gov/sites/default/files/2020-10/e3_cn_final_report_oct2020_0.pdf) detail the imperative of including CCUS as part the approach to achieving California’s 2045 carbon net-neutrality goal.

California’s 2008 Climate Change Scoping Plan, and subsequent 2013 and 2017 plan updates, all recognized the importance of CCUS in the state’s comprehensive climate strategy. And just last month, Governor Newsom’s [*California’s Electricity System of the Future*](https://www.gov.ca.gov/wp-content/uploads/2021/07/Electricity-System-of-the-Future-7.30.21.pdf)report highlighted the key role that CCUS can play in state climate action.

**CCUS will deliver significant job and economic benefits**

Deployment of carbon capture, utilization and sequestration technology affords California a significant opportunity to create and preserve thousands of high quality, high wage jobs across the state in both new and existing industries. As documented in recent analyses from [Rhodium Group](https://rhg.com/wp-content/uploads/2021/01/The-Economic-Benefits-of-Carbon-Capture-State-Investment-and-Employment-Estimates_Phase-II.pdf) and [Energy Futures Initiative](https://static1.squarespace.com/static/58ec123cb3db2bd94e057628/t/603d3bd74d006a4004a9a88b/1614625758081/CCUS+Workshop+Summary+030121.pdf), bringing CCUS projects and infrastructure on-line in California will support a range of employment opportunities across multiple economic sectors including construction and pre-construction, engineering, sciences, project development and ongoing project management.

**California is uniquely positioned to safely take advantage of CCUS technology**

California has an unparalleled set of resources to be a global leader in demonstrating the critical role that safe and effective CCUS technologies can play in climate action. Analyses presented by leading experts from [Stanford University](https://ww2.arb.ca.gov/sites/default/files/2021-08/stanford_presentation_sp_engineeredcarbonremoval_august2021_0.pdf) and [Lawrence Livermore National Laboratories](https://ww2.arb.ca.gov/sites/default/files/2021-08/llnl_presentation_sp_engineeredcarbonremoval_august2021.pdf) at the August 2 Scoping Plan workshop highlighted the abundance of safe, high quality geologic sequestration capacity in the state – much of it strategically located near existing facilities currently suited for safely capturing and transporting CO2.

California industries possess a depth of technological capability and technical expertise to quickly and safely deploy CCUS. The state has one of most skilled workforces in the world standing at the ready to design, build and operate CCUS projects and infrastructure. And, as detailed in the February 2021 report [*Permitting Carbon Capture and Storage Projects in California*](https://www-gs.llnl.gov/content/assets/docs/energy/CA_CCS_PermittingReport.pdf), California has existing and robust regulatory frameworks to ensure that CCUS projects protect public health, safety and the environment.

**The 2022 Scoping Plan Update must include an actionable plan for CCUS deployment in California**

The Coalition appreciates the inclusion of a focused workshop on CCUS technology as part of the 2022 Scoping Plan Update. Now is the time for the state to take the necessary actions to move CCUS forward in California.

CARB, CNRA and all stakeholders must work together to ensure that the 2022 Scoping Plan Update outlines a comprehensive policy, regulatory and economic framework for CCUS in California. This plan must detail the factors necessary to successfully enable CCUS technology to quickly, safely, and meaningfully contribute to California’s GHG reduction efforts. These key factors include the establishment of a unified, coordinated and streamlined permitting process; additional legal clarity on geologic pore space ownership; an integrated plan for the development of CCUS infrastructure tailored to California’s uniquely well-suited geologic conditions; and additional policy and economic incentives for CCUS, including incorporation of an accounting framework that addresses negative C02 emissions.

The Coalition looks forward to working with the California Air Resources Board, the California Natural Resources Agency, and all stakeholders throughout this Scoping Plan process to ensure that carbon capture, utilization and sequestration technologies play a significant role in enabling the state to achieve its climate goals.

Sincerely,

Pete Montgomery

Vice Chair

California Carbon Capture Coalition

*Members of the California Carbon Capture Coalition include Aera Energy, Chevron, Calpine, Clean Energy Systems, Southern California Gas Company, State Building and Construction Trades Council of California, and Western States Petroleum Association.*