



October 6, 2025

California Air Resources Board
1001 I Street Sacramento, CA 95814
P.O. Box 2815, Sacramento, CA 95812
Submitted Via email and comment portal

Re: Comments in Response to Information Solicitation to Inform Implementation of Carbon Capture, Removal, Utilization, and Storage Program (Senate Bill 905)

The Center for Progressive Reform is a nonprofit research and advocacy organization guided by a network of legal scholars and staff with expertise in governance and regulation. Our comments are also informed by our research and engagement with stakeholders in California as well as other states who are concerned about the risks associated with carbon capture and storage deployment. We are thankful to CARB for this opportunity to share our responses in response to your solicitation questions.

In the development of its' regulatory program for carbon capture, removal, utilization and storage, we urge CARB to design its rules and program to carefully consider and thoroughly examine the high potential for water pollution from leaks and runoff associated with the construction and operation of CO2 pipelines and injection wells, and the potential for unintended negative impacts on the water quality including groundwater and drinking water that millions of residents in communities across California rely on.

We would also like to note that to date as of this rulemaking, developers of carbon capture and storage technologies in the United States and globally have failed to prove that technologies and infrastructure for geologic sequestration are an effective or safe solution for permanently sequestering or for safely transporting high pressure liquefied carbon. Leaks at other carbon capture and storage pipelines and facilities in Satartia, Mississippi, Sulphur Louisiana, and Decatur, Illinois, and others, demonstrate that leaks at carbon capture and storage injection wells and pipelines are not only very common but highly likely. Leaks of odorless colorless CO2

into the air and water threaten the immediate safety and drinking water supply of surrounding communities, and can be deadly. In each of these incidents, local authorities and emergency responders were woefully unprepared and lacked adequate resources and preparation to protect residents. We are gravely concerned that, especially when considered cumulatively, and in total, the risk of potential harm from carbon capture and projects on water quality cannot be fully mitigated by the developers of carbon capture and storage facilities.

Moreover, potential impacts of all segments of carbon capture and storage projects need to be considered comprehensively by the CARB, and the public deserves the opportunity to participate in public hearings and have access to comprehensive information about each individual project and be provided with advance notice and ample time to understand complex projects, consult with independent experts, and provide informed comments. CARB's regulatory program should also identify and consider any areas of historical, cultural, or archaeological significance and potential impacts of these properties and engage in appropriate consultation with Tribes or other groups and mitigation measures in accordance with the National Historic Preservation Act (NHPA). The potential for seismic impact, leaks of gaseous CO₂ from injection wells and underground storage infrastructure, and impacts of proposed transportation infrastructure, also need to be further assessed and studied by CARB.

Responses to Solicitation Questions:

1. In addition to the terms defined in statute, are there other key terms that should be defined?

Yes, CARB should also define the following terms:

"Well integrity"

"Post-closure period"

"Retrofitting"

"Nature-based-solution"

2. Are there any definitions in the statute that may require further expansion or clarification?

"Large emitters" should be more clearly defined and classified by sector and by permanent mitigation capacity.

The difference between "sequestration" and "storage", if there are any, should also be clarified. In addition a time-scale should also be used to create a more specific definition of "permanent sequestration" and if this means 10 years, 25 years, 50 years, or 100 years.

The difference between direct and passive air capture should also be clarified with clear thresholds.

“Bioenergy with carbon capture and storage” and “biomass-based carbon removal with storage” should not be separate categories because they are the same process in essence and both involve

CARB should also define “acceptable feedstocks”.

More fundamentally, CARB should define “carbon removal, storage and sequestration” based on clear thresholds for emission mitigation verification, monitoring, reporting requirements, and closure protocol to make regulatory programs be able to more clearly assess alignment with California’s net-zero emissions target, as well as equity and environmental justice statutes.

(Applicability)

4. Are there suggestions for further description of these categories, or ways to group categories?

We propose the following categories and criteria:

Category 1: High carbon mitigation potential/high-cost effectiveness and low pollution risk to the public CARB should restrict deployment of carbon capture and storage to 1) mitigate emission from the agricultural and working lands sector using nature-based solutions like soil carbon sequestration. Nature-based solutions and forestry and ecosystem restoration, which are among the most low-cost carbon sequestration solutions and also provide a range of multi-benefits and also offer long-term (beyond 100 years) of climate, biodiversity and ecosystem benefits. And 2) to mitigate emissions from hard to decarbonize industrial sectors, which should be limited to cement manufacturing facilities only where this technology can be proven to be safe, cost effective and appropriate.

Category 2: Low carbon mitigation potential (higher net embodied and lifecycle emissions & high risk to the public), low cost-effectiveness, and high pollution risk to the public While prohibiting use of carbon for new facilities and retrofitting of polluting facilities which are incentivized by federal tax credits but do not achieve cost-effective mitigation within California and for which carbon capture and storage technology has not been proven to be technically feasible and for which emission mitigation is not verifiable. These include carbon capture and storage use in:

- Refineries
- Natural Gas Power Plants
- Bionergy or BECCS facilities
- Waste incinerators and chemical recycling facilities
- Ethanol production facilities

Category 3: Nascent technologies/Low or Unknown mitigation potential, low-cost effectiveness, and high risk to ecosystems and the public. These include:

- Marine carbon dioxide removal

(Financial Responsibility)

5. In addition to the instruments listed in §146.85 of Title 40, are there other existing financial responsibility instruments CARB staff should consider?

Mechanisms that prevent oil companies from externalizing financial responsibility and liability for any potential clean up costs onto the public and local communities should be utilized, such as requiring project developers to contribute to a state emergency fund that can be used to cover cost of clean up or or harm to any communities that are affected by CO2 pollution in the post-closure period.

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