Information Solicitation to Inform Implementation of Carbon Capture, Removal, Utilization, and Storage Program: Senate Bill 905

The California Air Resources Board (CARB or Board) is soliciting feedback to help inform its work to implement *Senate Bill (SB) 905 (Caballero, Statutes of 2022).* This pre-rulemaking solicitation step allows CARB to gather important information, from a wide range of stakeholders, relating to developing approaches to implementation.

In recognition of the science and need to drastically reduce greenhouse gases (GHGs) and achieve carbon neutrality no later than mid-century to stabilize the climate, the Legislature passed Assembly Bill 1279 (AB 1279) (Muratsuchi, Chapter 337, Statutes of 2022), paired with Senate Bill 905 (SB 905) (Caballero, Chapter 359, Statutes of 2022). AB 1279 establishes the policy of the State to achieve carbon neutrality as soon as possible, but no later than 2045; to maintain net negative GHG emissions thereafter; and to ensure that by 2045 statewide anthropogenic GHG emissions are reduced by at least 85 percent below 1990 levels. The bill requires CARB to ensure that Scoping Plan updates identify and recommend measures to achieve carbon neutrality, and to identify and implement policies and strategies that enable CO2 removal solutions and carbon capture, utilization, and storage (CCUS) technologies. SB 905 requires CARB to create the Carbon Capture, Removal, Utilization, and Storage Program to evaluate, demonstrate, and regulate CCUS and carbon dioxide removal (CDR) projects and technology. While CARB has already approved a CCS Protocol for use in the Low Carbon Fuel Standard, it will need to be updated to reflect any requirements established by the new Carbon Capture, Removal, Utilization, and Storage Program at CARB.

CARB is conducting this solicitation step to gather information that will aid in implementing SB 905. The solicitation for feedback on the questions below will be open for 45 days. We also welcome any additional feedback that respondents feel is important for staff to consider regarding the implementation of SB 905. In responding to the questions below, it is most helpful to staff if respondents reference the question number with their response. Submittals will be publicly posted for transparency.

Previous workshop materials are available *here*. CARB is in the process of hiring staff as approved in the 2025-2026 budget.

Submit responses here: *Information Solicitation to Inform Implementation of Carbon Capture, Removal, Utilization, and Storage Program: Senate Bill 905 | California Air Resources Board*

Submission deadline: October 6, 2025 (11:59:59 PM)

Definitions

The statute already includes several key definitions, including definitions for:

- "Carbon dioxide capture, removal, or sequestration project"
- "CCUS technology"
- "CDR technology"
- "Program"
- "Carbon dioxide capture, removal, or sequestration project operator"
- "Carbon dioxide capture project"
- "Carbon dioxide removal project"
- "Concentrated carbon dioxide fluid"
- "Geologic storage complex"
- "Geologic storage reservoir"

1. In addition to the terms defined in statute, are there other key terms that should be defined? Please provide any proposed definitions with applicable citations.

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

Applicability

General project categories may include:

- Nature-based solutions
- Carbon capture and sequestration or storage from large emitters
- Carbon capture from large emitters and ambient air for "permanent" sequestration through utilization
- Direct capture from ambient air for "permanent" sequestration
- Passive air capture from ambient air for "permanent" sequestration
- Bioenergy with carbon capture and storage
- Biomass-based carbon removal with storage

3. Are there any project categories missing from this list?

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

Financial Responsibility

SB 905 requires CARB to develop financial responsibility requirements that are "no less stringent than Section 146.85 of Title 40 of the Code of Federal Regulations, as that section read on January 1, 2022

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

6. What other additions or changes to the existing requirements for financial responsibly should CARB consider and why?

7. How should the requirements account for scenarios such as ownership transfer, bankruptcy, change of ownership structure, change in insurance carrier, etc.?

8. Are there other ways to address investment uncertainty through insurance, or other mechanisms?

Criteria and Toxics Monitoring

SB 905 requires that all projects include monitoring of "criteria pollutants and potential toxic air contaminants at the one or more sites within the geologic storage complex and at mobile or fixed sites within the facility, and monitoring of ambient carbon dioxide concentrations over the geologic storage complex to facilitate leak detection."

9. What project-specific air monitoring activities are CCUS/CDR developers currently conducting or intending to conduct, if any?

10. What specific criteria pollutants or toxics emissions should be prioritized for monitoring and where along the CCUS/CDR project components (i.e. capture, transport, injection/utilization) should monitoring be prioritized?

11. How long should criteria or toxics monitoring be conducted for?

12. Are there examples of existing regulatory monitoring efforts being conducted in other sectors/sources that may be instructive for SB 905?

13. What frequency of monitoring and reporting should CARB consider, and should this differ by project type? Do you have estimates on costs for monitoring and reporting?

14. Should CARB consider different monitoring requirements at carbon capture sites versus carbon removals utilizing natural systems?

Minimizing local water and air quality impacts

SB 905 calls for strategies to ensure that carbon dioxide capture, removal, or storage projects minimize, to the maximum extent technologically feasible, local water pollution or air pollution from construction- and transportation-related impacts from the projects in communities adjacent to carbon dioxide capture removal, or storage projects, including a geologic storage complex.

15. What types of strategies are in use in other regulatory or voluntary programs that could be adapted to meet the statutory requirements?

16. Are there other guardrails that should be considered beyond existing local, state, and federal regulations to minimize impacts? For example, many projects will have to meet the requirements of the California Environmental Quality Act (CEQA), what other requirements should be included and why? If proposing other requirements, please also provide any cost and time estimates for implementation.

17. Is there any information from existing studies or projects to inform a CEQA analysis for the rulemaking?

Permit and Project Portal

SB 905 requires that CARB adopt regulations for a unified permit application for the construction and operation of carbon dioxide capture, removal, or sequestration projects to expedite the issuance of permits or other authorizations for the construction and operation of those projects. Project developers and non-state agency use of a streamlined permit application is voluntary. CARB is also developing a data and information portal to assist project developers through the permitting process. This portal will also support the implementation of the unified permit application.

NOTE: SB 905 does not call for CARB to issue permits for the construction or operation of CCUS or CDR projects

18. What key issues should CARB address when developing the unified permit application?

19. Considering the data and information portal will be voluntary to use, what features of the permit portal would increase the likelihood the portal is used by both project developers and permitting agencies?

20. Are there examples of existing similar systems (e.g. CEQAnet) that CARB should look to when developing the permit portal?

21. Are there examples of existing public CCUS project databases that we should look to and/or emulate for public reporting on project deployment?

Integration with Existing State Programs and Potential New Policy Support

Projects developed under SB 905 have the potential to be used for compliance or reporting under several state climate efforts and programs. Those programs include the following:

- Reducing the Cap-and-Trade compliance obligation for capturing and storing carbon from the state's largest greenhouse gas facilities such as power plants and manufacturing and offsets for ambient air carbon dioxide removal.
- The Low Carbon Fuel Standard to reduce transportation fuel carbon intensity or generate direct air capture credits.
- Reporting under the Corporate Greenhouse Gas Reporting and Climate Risk Financial Disclosure Programs
- Reducing the carbon intensity of products included in the program for Embodied Carbon in Buildings
- The Net Zero Emissions Strategy for the Cement Sector

22. What role could projects developed under SB 905 play in these programs and are there other programs or policies in which carbon capture removal, storage, and utilization could play a role for compliance?

23. Are there other things the state could be doing to scale up deployment of projects under SB 905?

24. Is there a potential role for carbon removal using climate-smart agriculture practices under the SB 905 framework?

Protocols

SB 905 authorizes CARB to adopt protocols to support additional methods of utilization or storage of captured carbon dioxide.

25. Are there certain carbon capture, removal, utilization, and storage project type methodologies that should be prioritized based on existing science, existing methodologies, or implementation experience?

26. Should CARB consider adopting project type specific protocols or defining more widely applicable standards, or a combination of both? If CARB were to define key standards applicable to all methodologies as opposed to individual methodologies based on specific technology or storage, what could those look like (i.e. recommendations on existing standards), and would that approach help to scale and innovate in this space faster than development of individual protocols?

Public Project Database:

27. Are there examples of existing public CCUS project databases that we should look to and/or emulate for public reporting on project deployment?