

**Final Assembly Bill 32 Environmental Justice Advisory Committee Resolution:
Opposition to Carbon Capture, Use, and Storage (CCUS) and Direct Air Capture
(DAC) in California**

September 9, 2024

CARB Responses for 9/12/2024 Joint EJAC/CARB Board Meeting

Whereas, the Environmental Justice Advisory Committee (EJAC) of the California Air Resources Board (CARB) is dedicated to advocating for equitable and sustainable solutions to climate injustices and environmental degradation,

Whereas, carbon dioxide removal consists of both natural and engineered processes for removing carbon dioxide from the atmosphere and storing it,

Whereas, EJAC's resolution specifically focuses on engineered Carbon Capture, Use, and Storage and Direct Air Capture while uplifting the need for a better understanding of and investment in natural forms of carbon sequestration,

Whereas, engineered technologies should only be applied to essential processes that cannot otherwise be decarbonized or to address legacy emissions that are already in the atmosphere,

Whereas, the adoption of Engineered Carbon Capture, Utilization, and Storage (CCUS) strategies is counterproductive to meaningful climate action, and CCUS investments increase reliance on fossil fuel infrastructure, hindering the transition to truly zero-emission energy sources,

Whereas, CCUS projects perpetuate fossil fuel dominance, exacerbate harm to frontline communities, and present risks to public health and safety,

Whereas, the Intergovernmental Panel on Climate Change considers engineered CCUS a very expensive technology of last resort,

Whereas, the cost of engineered CCUS and DAC will not go down over time given the long term inputs required for such projects,

Whereas, imposing dangerous and experimental projects that perpetuates business as usual and delays a fair and just transition off fossil fuels presents a serious moral hazard and risks public trust; injudicious deployment of carbon removal technologies in sectors that are not the hardest to decarbonize and without appropriate health and

safety protections poses the significant risk of damaging or destroying public trust in technologies and wasting public investments, limiting the ability to use the technology on the processes and in the sectors that are the hardest to abate.

Whereas, it is recognized that while efforts are made to oppose CCUS strategies altogether and advocate for bolder, justice-oriented emissions reductions, there is a simultaneous need to mitigate the potential harms and risks associated with CCUS projects if they persist,

Whereas, if Direct Air Capture is deemed technically necessary to address legacy carbon emissions, projects must not perpetuate harm or forego potential emissions reductions in environmental justice communities,

Whereas, injudicious deployment of carbon removal technologies in sectors that are not the hardest to decarbonize and without appropriate health and safety protections poses the significant risk of damaging or destroying public trust in technologies and wasting public investments, limiting the ability to use the technology on the processes and in the sectors that are the hardest to abate.

Therefore, Be It Resolved, that the Environmental Justice Advisory Committee (EJAC) of the California Air Resources Board (CARB) formally opposes the deployment of Carbon Capture, Utilization, and Storage (CCUS) technology within the state of California,

Carbon removal and sequestration will be an essential tool to achieve California's legislative carbon neutrality targets. The CARB Board approved the 2022 Scoping Plan Update that shows both a drastic reduction in fossil fuel demand/use/production and need to use CCUS. Climate Change 2022: Mitigation of Climate Change, a report by the IPCC released in early 2022, also shows there is no path to carbon neutrality without carbon removal and sequestration. When AB 1279 passed it paired a minimum reduction in GHG emissions to 85% below 1990 levels by 2045 with a State goal to remove any remaining ambient carbon in order to achieve carbon neutrality as soon as possible, but no later than by 2045. SB 905 was passed with AB 1279 as a joint package of bills that further reinforces the acknowledgement there is a role for CCUS and direct carbon removal. Thus, State and CARB policy clearly reflect the need to move away from fossil fuels and not solely rely on CCUS to achieve any climate targets.

Be It Further Resolved, that EJAC urges all state agencies overseeing CCUS and DAC deployment in California to exercise discretion and reject project applications

outright, given the clear evidence of CCUS's track record of failure as a greenhouse gas reduction strategy and its potential risks to the health and safety of Californians, especially those residing in already pollution-burdened communities,

State agencies must act on the records and evidence before them consistent with statutory direction and other authorities.

Health and Safety Code § [38562.2\(d\)](#) (from AB 1279) directs CARB to work with relevant agencies to “Identify and implement a variety of policies and strategies that enable carbon dioxide removal solutions and carbon capture, utilization, and storage technologies in California to complement emissions reductions and achieve the policy goals.” Health and Safety Code § [39741.1](#) (from SB 905), directs CARB to “establish a Carbon Capture, Removal, Utilization, and Storage Program to [among other things]:

- *Evaluate the efficacy, safety, and viability of CCUS and CDR technologies and facilitate the capture and sequestration of carbon dioxide from these technologies, where appropriate [, and]*
- *Develop monitoring and reporting schedules to state regulatory agencies for carbon dioxide capture, removal, or sequestration projects to ensure efficacy, safety, and viability of the projects.”*

Be It Further Resolved, CARB must pursue immediate implementation of the provisions in SB 905 pertaining to community protections.

CARB agrees and has been in the process of hiring for limited term positions for several months while awaiting additional resources to complete all legislative direction provided in SB 905.

Be It Further Resolved, that EJAC advocates for the adoption of common-sense policy protections, to limit the harms and risks of CCUS and DAC to communities in California, including but not limited to:

- Ensuring no net increase in air pollution,
- Ensuring that CCUS projects cannot proceed if they threaten groundwater and drinking water supplies or increase water, soil, or air pollution within designated community radii.

Applicable provisions from SB 905 require environmental protections. Specifically, Public Resources Code § [71464](#) requires, among other things, that any carbon dioxide capture, removal, or sequestration project operator:

“(d) Avoid any significant impact on residents in communities affected by a high-cumulative exposure burden caused by a potential net-increase in air, water, and soil pollution emanating from the site of the carbon dioxide capture, removal, or sequestration project in accordance with all applicable local, state, and federal laws and requirements, including requirements to use best available control technology, as defined in Section 40405 of the Health and Safety Code.

(e) Comply with Section 39741.1 of the Health and Safety Code and the regulations adopted by the state board pursuant to that section.

(f) Where avoidance of increased air pollution on site from such a project is not feasible, invest in mitigation in the community location adjacent to where the carbon dioxide capture, removal, or sequestration project is located which would be exposed to or impacted by any potential increased air pollution if mitigation measures are required pursuant to the California Environmental Quality Act (Division 13 (commencing with Section 21000)) for the project to address significant impacts in local air pollution.”

- Prohibiting the siting of CCUS and DAC infrastructure in or near overburdened Environmental Justice (EJ) communities and implementing a minimum buffer distance of 10 miles from all capture, storage, and pipeline facilities.

This suggestion goes beyond the requirements identified by SB 905, including those referenced above. CARB acknowledges a buffer zone was something advocates were asking for before SB 905 language was finalized and passed. Once CARB has secured additional resources to complete all legislative direction provided in SB 905, we are open to having discussions on further guardrails.

- Requiring CCUS and DAC projects to be powered solely by excess clean, renewable energy.

This is not included in SB 905 provisions. Requiring only excess clean renewable energy be used is not practical in the near term where unprecedented electricity load growth is needed to meet transportation, building electrification, and other direct use of electricity to displace the use of fossil combustion energy. Load growth supported by clean electricity for critical end uses to reduce dependence on fossil fuels is a priority.

- Mandating notification and community engagement processes for residents and sensitive sites such as schools within buffer distances of planned project sites, including workshops or community meetings to address concerns and discuss community benefits.

CARB would be interested in discussing community benefit plans and engagement once CARB has secured additional resources to complete all legislative direction provided in SB 905.

- Requiring a full Environmental Impact Report (EIR) for all proposed CCUS and DAC projects, informed by local and statewide adverse impact research and worst-case scenario modeling.
- Implementing financial assurances that do not rely on the long-term fiscal health of companies, such as bonds and strong third-party insurance.

All CCUS projects must be in compliance with existing environmental laws requiring EIRs and CEQA as applicable.

SB 905 (PRC § [71464](#) again, now (a)) requires operators to: “Maintain financial responsibility for a period of time that is sufficiently long enough to demonstrate that the risk of carbon dioxide leakage poses no material threat to public health, safety, and the environment and to achievement of net zero greenhouse gas emissions in California and that terminates no earlier than 100 years after the last date of injection of carbon dioxide into a geologic storage reservoir. The operator shall demonstrate financial responsibility by submitting a plan to the state board to cover the short- and long-term costs associated with corrective action, well plugging and abandonment, geologic storage reservoir monitoring, site care and site closure, emergency and remedial response, liability associated with seismic activity triggered by the reservoir, or loss of carbon dioxide containment by the geologic storage reservoir, and protection of drinking water quality and public and environmental health and safety through financial responsibility instruments as determined by the state board pursuant to Section 39741.5 of the Health and Safety Code, which may include, but is not limited to, bonds.”

- Not allowing projects to generate credits for carbon markets or other systems, as this undermines the goal of getting to net-zero emissions, perpetuates business as usual, and opens up the possibility of double counting reductions and dangerously delaying progress.

Allowing these projects to support compliance under climate programs consistent with the environmental integrity requirements of those programs provides an incentive to implement projects that are demonstrated to be needed to achieve the AB 1279 targets and support the implementation of the 2022 Scoping Plan Update. The projects would only be reflected once in the statewide inventory when assessing progress towards SB 32 and AB 1279 and not double counted.

Be It Further Resolved, that EJAC emphasizes the need for CARB to confine CCUS deployment, if allowed at all, to truly hard-to-decarbonize sectors and prohibit CCUS in sectors such as refineries, natural gas power plants, bioenergy facilities, hydrogen facilities, waste incinerators, chemical recycling facilities, and ethanol production facilities, to reduce harm to the climate and communities.

This would place limits on CCUS not envisioned in SB 905 or as demonstrated to be potentially needed in the 2022 Scoping Plan Update.

Be It Further Resolved, that EJAC calls for further research and regulatory improvements regarding the transportation, use, and storage of carbon, and other related aspects, including:

- Maintaining the ban on the use of carbon capture for Enhanced Oil Recovery (EOR),

This ban in California is in statute (from SB 905: PRC § [3132\(d\)](#)).

- Maintaining the carbon pipeline moratorium until updated federal regulations are in place and ensuring safety measures such as defined safe distances, odorant addition for leak detection, and consideration of community burdens during site exploration.
- Prohibiting the conversion of existing transmission pipelines to CO2 service and ensuring that regulations require pure carbon dioxide streams.

SB 905 (PRC § [71465](#)) states (a) Pipelines shall only be utilized to transport carbon dioxide to or from a carbon dioxide capture, removal, or sequestration project once the federal Pipeline and Hazardous Materials Safety Administration has concluded the rulemaking (RIN 2137-AF60) regarding minimum federal safety standards for transportation of carbon dioxide by pipeline (Parts 190 to 199, inclusive, of Title 49 of the Code of Federal Regulations) and the carbon dioxide capture, removal, or sequestration project operator demonstrates that the pipeline meets those standards.

This section shall not apply to carbon captured at a permitted facility and transported within that facility or property.

(b) The Natural Resources Agency, in consultation with the Public Utilities Commission, shall, no later than February 1, 2023, provide a proposal to the Legislature to establish a state framework and standards for the design, operation, siting, and maintenance of intrastate pipelines carrying carbon dioxide fluids of varying composition and phase to minimize the risk posed to public and environmental health and safety. The recommended framework shall be designed to minimize risk to public health and environmental health and safety, to the extent feasible.

The Natural Resources Agency published the proposal¹ to the legislature in the Spring of 2023.

Be It Further Resolved, that EJAC calls for any carbon removal or Direct Air Capture projects to be subject to the same standards and protections as CCUS projects.

SB 905 calls for similar requirements for both types of projects.

Be It Further Resolved, that EJAC commits to working with stakeholders and advocating for policies, regulations, and direct emissions reductions that prioritize environmental justice, community health, and sustainability in California's climate and energy initiatives.

¹ <https://resources.ca.gov/-/media/CNRA-Website/Files/Initiatives/Transitioning-to-Clean-Energy/SB-905--CO2-Pipeline-Regulatory-Framework--Stds-March-2023.pdf>