



October 6, 2025

Lauren Sanchez, Chair
California Air Resources Board
1001 I Street
Sacramento, CA 95814

RE: California Air Resources Board Information Solicitation to Inform Implementation of the Carbon Capture, Removal, Utilization, and Storage Program: Senate Bill 905

Dear Chair Sanchez,

The Coalition for Renewable Natural Gas (RNG COALITION) appreciates the opportunity to submit the following input to the California Air Resources Board's (CARB) Information Solicitation to Inform Implementation of the Carbon Capture, Removal, Utilization, and Storage Program: Senate Bill 905.

RNG COALITION represents the renewable gas (RNG) industry in North America. We are a non-profit association of companies and organizations dedicated to the advancement of RNG as an alternative, domestic energy and fuel resource. RNG COALITION provides industry leadership, education and advocacy for RNG development as a sustainable source for clean fuel, heat, power, products and services.

Background

RNG COALITION supports all renewable gas technologies that can provide sustainable substitutes for geologic natural gas or liquid fuels. Our membership includes approximately 400 diverse companies throughout the value chain of waste feedstock conversion and end uses that have invested in RNG. Our members collectively produce over 90% of all RNG in North America. These investments have been significant, creating jobs and promoting green economic development in California and elsewhere.

Existing RNG Facilities Have Relatively Pure CO₂ Streams

Most RNG facilities in operation today produce relatively pure streams of carbon dioxide (CO₂) as part of renewable natural gas production. RNG facilities at landfills and dedicated anaerobic digesters clean up raw biogas, which is primarily composed of methane (CH₄) and CO₂, and convert it into a pipeline-quality substitute for conventional gas.

During gas cleanup at RNG facilities, the CO₂ stream is fully separated from the CH₄ and has the potential to be permanently stored below ground or utilized. Adding a value stream from the captured CO₂ to existing RNG facilities offers a safe and effective means to reduce CO₂ emissions and make RNG more economically competitive.

Carbon Capture and Sequestration Enables New Carbon Negative RNG Pathways

Lifecycle carbon negativity is a critical value proposition of RNG—and it is underpinned by the simple concept that organic waste-to-energy systems can turn societal liabilities, including greenhouse gas emissions (GHGs), into strategic energy assets.

Current methane-reducing pathways for RNG often reduce a greater amount of GHG emissions than occur at the point of RNG consumption. For example, the project economics of most current animal manure and food waste RNG projects are premised on the core lifecycle GHG scoring in the California Low Carbon Fuel Standard that recognizes the significant methane emissions avoided by constructing these projects.

Similarly, the use of carbon capture and sequestration (CCS) technologies such as geologic storage or biochar could produce negative-GHG outcomes when paired with RNG and hydrogen derived from biomass.¹ These technologies will provide a necessary pathway to *remove* emissions from the atmosphere,² creating an important pathway to carbon neutrality and, ultimately, carbon negativity.

Synthetic Fuels Can Be Made Using Captured CO₂, CH₄ and/or H₂ as Feedstocks

Multiple renewable pathways exist that involve various possible combinations of captured biogenic CO₂ and CH₄ use—as well as possible pairing with electrolytic hydrogen—for the creation of synthetic fuels, including synthetic gases that can directly substitute for fossil gas sources.³

¹ LLNL, *Getting to Neutral: Options for Negative Carbon Emissions in California*, Baker et al., January 2020, Lawrence Livermore National Laboratory (LLNL) https://gs.llnl.gov/sites/gf/files/2021-08/getting_to_neutral.pdf

² Sequestration of the biogenic carbon contained in waste feedstocks from RNG and biomass-derived renewable hydrogen can be a carbon-negative process that removes carbon from the atmosphere. This benefit is separate from the methane destruction potential of RNG, which can lead to additional carbon-negative outcomes on a lifecycle basis relative to existing environmental control baselines.

³ National Renewable Energy Laboratory, *Power-to-Gas, Biomethanation: A Unique and Sustainable Approach to Renewable Natural Gas and other products*, AGA/EPA 2019 Renewable Natural Gas Workshop, Sept. 24, 2019, available at https://www.epa.gov/sites/default/files/2019-10/documents/harrison_rngworkshop_2019.pdf

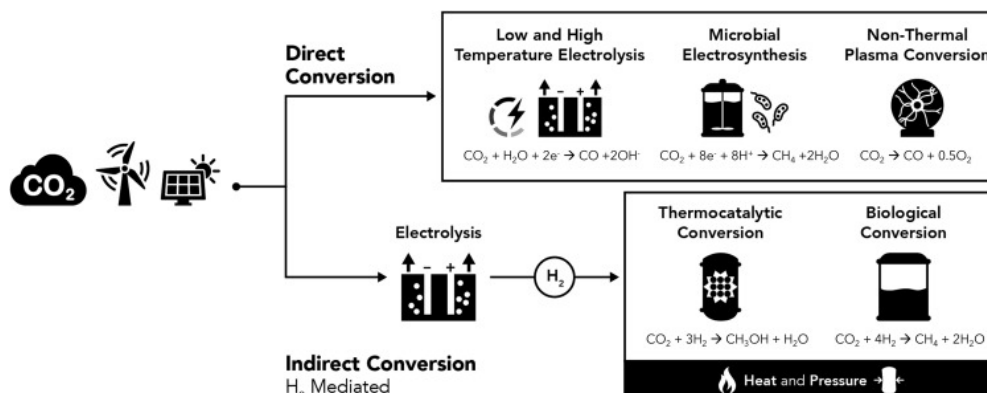


Figure 1. Example CO₂ Conversion Pathways⁴

The CO₂ Reduction and Upgrading for e-Fuels Consortium (CO₂RUe) develops and derisks advanced technologies that use renewable electricity to convert CO₂ into e-fuels and commodity chemicals.⁵ GHG benefits from these technologies are amplified when the captured CO₂ is from a biogenic source. RNG COALITION members are actively involved in pursuing commercialization of these technologies and are providing extensive thought leadership on this topic.^{6,7,8,9}

Conclusion

The RNG industry is poised to help advance a cross-section of California's GHG reduction goals. RNG facilities with carbon capture and storage or utilization to create synthetic fuels offers multiple attractive GHG outcomes but needs strong support from CARB to launch at scale in California. We are available to discuss any policy-related questions or provide technical assistance at your convenience.

Respectfully submitted,

Sam Wade
Vice President of Public Policy
Coalition for Renewable Natural Gas
sam@rngcoalition.com

⁴ Grim, R. Gary et al., *The Feasibility of Direct CO₂ Conversion Technologies on Impacting Mid-century Climate Goals*, Joule, Volume 7, Issue 8, 1684 – 1699. [https://www.cell.com/joule/fulltext/S2542-4351\(23\)00280-5?_returnURL=https%3A%2F%2Flinkinghub.elsevier.com%2Fretrieve%2Fpii%2FS2542435123002805%3Fshowall%3Dtrue](https://www.cell.com/joule/fulltext/S2542-4351(23)00280-5?_returnURL=https%3A%2F%2Flinkinghub.elsevier.com%2Fretrieve%2Fpii%2FS2542435123002805%3Fshowall%3Dtrue)

⁵ <https://www.energy.gov/eere/co2rue>

⁶ https://www.mitsui.com/mgssi/en/report/detail/_icsFiles/afieldfile/2025/04/28/2503_m_inada_e.pdf

⁷ <https://skynrg.com/policy-nugget-false-dichotomy/>

⁸ <https://tes-h2.com/blog/why-cutting-methane-emissions-is-crucial-and-how-e-ng-can-help>

⁹ <https://www.electrochaea.com/applications/>