



Helping dairies fuel a renewable future

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December 23, 2024

California Air Resources Board
Low Carbon Fuel Standard
1001 I Street
Sacramento, CA 95814

Re: CalBioGas Hanford LLC Tier 2 Pathway Application No. B0661; Response to Leadership Counsel for Justice & Accountability, Central Valley Defenders of Clean Water & Air, and Animal Legal Defense Fund

California Bioenergy LLC (“CalBio”) writes on behalf of CalBioGas Hanford LLC (“the project”) to provide responses to the comments received in a letter dated December 20, 2024 regarding the Tier 2 Pathway Application (No. B0661) for compressed natural gas (CNG) from dairy manure at Rocking Horse Biogas LLC in Kings County, California for use as transportation fuel in California. CalBio is responding within the scope of the Low Carbon Fuel Standard (“LCFS”) program per § 95488.7(d)(5)(A), which requires responses to comments “related to potential factual or methodological errors.”

CalBio appreciates the comments and is committed to full and accurate accounting of life cycle emissions associated with the pathway application. CalBio commends the California Air Resources Board (“CARB”) in its development of the world-leading LCFS program and Simplified CI Calculator for Biomethane from Anaerobic Digestion of Dairy and Swine Manure (“CI Calculator”). The CI Calculator has been vetted through public processes to ensure greenhouse gas (“GHG”) emission reductions are achieved beyond a business-as-usual baseline.

The coalition of groups (“Commenters”) who submitted comments contend that the application should be rejected as summarized below. As part of the comment submission, the Commenters reference a petition that was filed with CARB requesting all fuels from dairy biomethane be excluded. To this, CalBio provides CARB’s response, which was to deny the petition.¹

As to the other statements made by the Commenters, CalBio does not believe any of these claims to be accurate and our responses are outlined below. The project has been developed entirely within the framework established by CARB to develop low carbon fuels in the transportation sector. In addition to reducing GHGs, this project generates renewable natural

¹ <https://ww2.arb.ca.gov/sites/default/files/2022-04/LCFS%20Reconsideration%20Petition%20Response.pdf>

gas that displaces use of fossil-based fuels, improves local air quality, and creates local job opportunities on family-owned farms.

(1) LCFS System Boundary

The Commenters argue “the application incorporates an unlawfully truncated system boundary that ignores feedstock production at the source factory farm—Rocking Horse Dairy which confines 3,000 cows—and other emissions such as those from storage and disposal of digestate, resulting in artificially low Carbon Intensity (CI) values and inflated credit generation.”

This statement is incorrect. The project’s pathway application utilizes the exact methodology and calculators designed for use under the LCFS regulation. The lifecycle analysis for this pathway application was conducted using a modified version of the Board-approved Tier 1 Simplified CI Calculator for Biomethane from Anaerobic Digestion of Dairy and Swine Manure, which is incorporated by reference in the LCFS regulation, § 95488.3(b). As noted in the CARB Staff Summary, “the modified calculator has been determined to be equivalent to CA-GREET3.0 pursuant to § 95488.7(a)(1) of the LCFS regulation.”

The purpose of the LCFS pathway application is to calculate the methane emissions that *would have occurred in the absence of the digester project*. The lifecycle emissions are calculated in part based on the GHG assessment boundary defined in Chapter 4 of the Compliance Livestock Offset Protocol (“LOP”), which delineates the Sinks, Sources, and Reservoirs (“SSRs”) that must be included or excluded when quantifying the net change in emissions associated with the installation and operation of a dairy digester. The lifecycle analysis includes an assessment of the baseline manure management practices at the dairy, reductions from this facility exceed that which would occur under the “business-as-usual” scenario and are therefore additional.

Furthermore, the dairy’s use of anaerobic storage lagoons to manage effluent from the digester does not result in increased emissions relative to the baseline scenario. Digestate stored in these lagoons, by definition, is material that has undergone degradation in the digester system and therefore has significantly reduced methane producing capacity, as defined in Table A.5 of the LOP. The LCFS pathway includes emissions from the digester effluent pond within its GHG assessment boundary. CalBio recognizes that there is additional methane mitigation opportunities by managing digestate in an environment other than lagoons. We purposefully design our digesters and digestate management systems to allow farmers to divert manure from the lagoons and instead blend into the irrigation system allowing for aerobic management of the digestate and increased methane mitigation.

(2) Additionality of Methane Reductions

The Commenters believe CARB did not consider the additionality requirements of Health and Safety Code § 38562, which requires the state to adopt GHG emissions limits and emissions reduction measures by regulation to achieve the maximum technologically feasible and cost-

effective reductions in GHG emissions in furtherance of achieving the statewide GHG emissions limit.²

According to CARB's response to the petition, the Health and Safety Code § 38562 does not apply to the LCFS.³ Also, as discussed above, crediting for the voluntary capture of methane is limited to the methane that would have otherwise been vented to the atmosphere in the absence of such a project. The lifecycle analysis prepared using the CA-GREET3.0 and reviewed by CARB and an independent third-party verifier confirms that real, quantifiable, permanent, and additional emission reductions have occurred.

The Commenters also incorrectly conflate the funding the projects have received through the Dairy Digester Development and Research Program (DDRDP)⁴. This is incorrect. The DDRDP grant program was established to provide funding to help encourage the development of dairy digesters given the urgency of mitigating short-lived climate pollutants such as methane. The program has been extremely successful in helping the state achieve its methane reduction goals and participation in the program does not preclude a project from participating in the LCFS program.

(3) Incentivizing Methane Production

The Commenters speculate that the LCFS program incentivizes expansion and consolidation of dairies but fail to recognize that dairy industry consolidation is a trend that has been occurring for decades, not only in California, but all over the country.⁵ Furthermore, CARB developed an analysis using their California Dairy and Livestock Database (CADD) which concludes that there is not enough evidence to suggest there is a correlation in herd growth from dairies that have digesters compared to those which do not.⁶ It is also important to note that the project is a separate entity from the dairy operation. The dairy exists to produce widely consumed goods such as milk, butter, yogurt, and ice cream and herds are managed based on economic and operational factors such as the cost of feed, labor, transportation, electricity, and the price of milk to name a few.

(4) Pathway Application Transparency

The Commenters assert that the application is overly redacted. The information provided in the LCA document and site-specific inputs includes highly detailed descriptions of how the project is designed and operates. The information being redacted is considered to be confidential business information. Furthermore, all site-specific CI data for the fuel pathway application

² <https://codes.findlaw.com/ca/health-and-safety-code/hsc-sect-38562.html>

³ <https://ww2.arb.ca.gov/sites/default/files/2022-04/LCFS%20Reconsideration%20Petition%20Response.pdf>

⁴ https://www.cdfa.ca.gov/oefi/ddrdp/docs/2023_ddrdp_legislative_report.pdf

⁵ https://clear.ucdavis.edu/sites/g/files/dgvnsk7876/files/inline-files/Meeting-the-Call-California-Pathway-to-Methane-Reduction_0.pdf

⁶ https://ww2.arb.ca.gov/sites/default/files/2024-08/CARB_Dairy_Sector_Workshop_Staff_Presentation_08-22-2024.pdf

underwent verification by an independent third-party verifier in accordance with § 95500 of the LCFS regulation.

(5) Inflated CI Values

The Commenters contend that the Carbon Intensity values achieved by these projects create credits that enable further deficit generation. As described above, the number of LCFS credits generated by these projects are calculated using a lifecycle approach and occur when the methane is used in a CNG vehicle as a substitute for diesel vehicle fuel. As a producer of renewable fuels, CalBio supports the transition away from fossil fuels and further action by CARB to increase its Carbon Intensity reduction targets in the LCFS program.

(6) Discriminatory Impact

The Commenters state that certification of this pathway would result in a discriminatory impact in conflict with CARB's obligations under California Government Code 11135, and Title VI of the Civil Rights Action. CalBio is not in a position to respond to these claims as they are not relevant to the GHG lifecycle assessment of the project.

It should also be noted that as part of the development of our projects, CalBio held public meetings where we shared information about the projects we were building to members of the local community. Overall, members of the community were supportive of the technology and development our projects bring to the central valley. Investment in digesters create well-paying, meaningful jobs to priority populations in the central valley. Additionally, digesters provide significant air quality benefits and improved wastewater management to those communities. By displacing fossil fuel consumption and combustion, this projects not only reduces methane but also substantially reduces air pollutant emissions such as H₂S, NO_x, PM_{2.5}, and PM₁₀.⁷

(7) Pollution Burdens

The Commenters argue “that this pathway applicant intends to burn the factory farm gas onsite to generate electricity will further worsen air quality in this community— and not without consequences.”

This statement is incorrect. CalBio utilizes a Mainspring facility that uses the low-btu biogas to generate electricity through a non-combustion and near-zero NO_x electricity generation technology. This technology has been permitted to operate by the San Joaquin Valley Air Pollution Control District.

Lastly, the Commenters reference a petition that was filed with CARB requesting reconsideration to exclude all fuels from dairy biomethane, which was previously denied by CARB. The reconsideration petition states that “this application would undermine SGMA [Sustainable Groundwater Management Act]” and “further impaired water quality[.]” To this,

⁷ <https://ww2.arb.ca.gov/sites/default/files/2020-07/dairy-emissions-matrix-113018.pdf>

CalBio reiterates CARB's response from the previous denied petition, which states that the digesters funded by DDRDP promote surface and groundwater quality protection by "requiring digester designs that meet the most stringent water quality protection requirements."⁸

CalBio is appreciative of the opportunity to respond to these comments, discuss the details of our pathway application, and support the integrity of the LCFS program. We are confident our application fully complies with the requirements of the LCFS program and respectfully request CARB proceed with the certification of the pathway. CalBio is prepared to respond to any further input or inquiry from CARB should it be necessary.

Sincerely,

A handwritten signature in black ink, appearing to read "Andrew Craig". The signature is fluid and cursive, with the first name being more prominent.

Andrew Craig
Vice President, Greenhouse Gas Programs
California Bioenergy LLC

⁸ <https://ww2.arb.ca.gov/sites/default/files/2024-05/2024-05-30-CARB-CDFA-Response-to-Dairy-Rulemaking-Petition.pdf>