



Helping dairies fuel a renewable future

2134 E. Mineral King Ave

Visalia, CA 93292

559-667-9560

September 19, 2022

Ms. Cheryl Laskowski,  
Branch Chief, Low Carbon Fuel Standard Team  
California Air Resources Board

*Submitted via LCFS Comments Upload Link*

**RE: CalBio Comments on CARB’s “2nd Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard”**

Dear Ms. Laskowski:

Thank you for the opportunity to provide comments to the California Air Resources Board (CARB) on the second workshop to address “Potential Changes to the Low Carbon Fuel Standard,” as presented by Staff on August 18, 2022.

California Bioenergy LLC (CalBio) is one of the country’s leading developers of dairy digester projects. These projects generate renewable natural gas and electricity, used as a vehicle fuel to power trucks, buses, and cars. Founded in 2006, CalBio works closely with local dairy farmers, CARB, the California Department of Food and Agriculture (CDFA), the California Public Utility Commission (CPUC), the California Energy Commission (CEC), the Environmental Protection Agency (EPA), and the dairy industry to develop projects that reduce greenhouse gas (GHG) emissions, improve local air quality, protect water quality, create local jobs, and provide a new revenue stream along with other meaningful benefits to the dairy.

The Low Carbon Fuel Standard (LCFS) program is the nation’s leading and most successful example of a market-based carbon reduction regulation for the transportation sector. The program has been instrumental in supporting the growth of a broad portfolio of low carbon transportation fuels for use in California and their associated reductions in GHG emissions. RNG projects such as CalBio’s additionally improve local air quality with diesel to RNG conversion, and CalBio creates clean energy job growth in California and other benefits.

**Program’s Success Allows for Lower CI Targets**

As we provide comments on some of the proposed changes discussed during the recent August LCFS workshop in the pages below, CalBio encourages CARB to revisit our comments<sup>1</sup> submitted following the July 7<sup>th</sup> workshop. In our comments, we discuss modeling several scenarios which demonstrate the need for more stringent targets to bring the LCFS program into alignment with the state’s Scoping Plan<sup>2</sup> goals. Our analysis shows that, because the LCFS program has been so successful, much more aggressive 2024 and 2030 CI reduction targets are both needed and feasible to bring credit and deficit production back

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<sup>1</sup> <https://www.arb.ca.gov/lists/com-attach/136-lcfs-wkshp-jul22-ws-VzQAZ1A9VmdQPwlm.pdf>

<sup>2</sup> <https://ww2.arb.ca.gov/sites/default/files/2022-05/2022-draft-sp.pdf>

into balance. As outlined in the Scoping Plan and Governor Newsom’s letter recently submitted to CARB on July 22, 2022<sup>3</sup>, more action is needed to meet the State’s 2030 climate goal and 2045 statewide carbon neutrality target. CalBio urges CARB to consider the current success of the LCFS program in stimulating large quantities of low carbon fuels in excess of the current LCFS targets as a market signal that the program can cost effectively do more and can align with the steeper declines required by the State’s Scoping Plan and thus deliver hundreds of millions of tons of additional GHG reductions, public health, and community benefits.

### **Support for Credit True-Ups**

During the workshop, CARB staff indicated they are considering a “Credit True-Up” which would allow retroactive generation of credits based on the difference in carbon intensities between the temporary pathway and the corresponding certified pathway. As it was proposed, Credit True-Ups would only apply to the temporary CI score once a project achieves its initial certification. CalBio supports this proposal as it will allow producers to avoid the complexity of arranging for gas storage in offtake contracting as well as enabling the sale of renewable natural gas (RNG) to smaller fleets who lack the ability to store. It also better supports equity to producers if for some reason CARB is delayed in processing their specific pathways.

CalBio also recommends that CARB take this policy a step further by enabling retroactive Credit True-Ups for the ongoing verification of Annual Fuel Pathway Reports. Projects are required to have pathways re-certified each year as new data becomes available. CI scores naturally fluctuate over time due to modeled data inputs, biological processes, and other factors which are outside the control of the digester operator. CARB has established a process where credits must be returned to CARB in the event CI scores come in higher (less negative); however, the opposite is not true when CI scores become lower. CalBio proposes CARB allow for Credit True-Ups to occur annually in the event the CI becomes more or less positive. One way this could work is to allow an LRT account holder to balance credit excesses or deficits across a pool of its listed projects to create greater certainty for CARB that deficits will be restored, and CARB will not be left stranded if a specific project must give back credits.

CalBio proposes an annual Credit True-Up occur according to the following calendar cycle for all certified pathways:

- Verifications statements are due to CARB on August 31 based on operational data for the previous calendar year.
- CARB reviews the verification and determines whether credits need to be adjusted in the account of the pathway holder.
  - o If the CI is more negative, CARB shall issue additional credits.
  - o If the CI is less negative, CARB will invalidate the appropriate number of credits.
- The verified CIs become effective for reporting during the next calendar year

Such a policy will ensure that projects will not *over-* nor *under-*generate credits while reporting to CARB since there will always be a Credit True-Up at the end which is consistent with the objectives of achieving accuracy and environmental integrity within the LCFS program.

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<sup>3</sup> <https://www.gov.ca.gov/wp-content/uploads/2022/07/07.22.2022-Governors-Letter-to-CARB.pdf?emrc=1054d6>

### **Temporary CIs for Electric Fuel Projects**

The electric fuel pathway needs to be adjusted to match the RNG pathway in terms of temporary CI and as discussed above to match any updates for RNG True-Ups. Currently the LCFS program does not allow electricity generated from dairy biogas and used in electric vehicles to claim a temporary CI. A temporary CI pathway of -400 (or lower) for dairy biogas-based electricity would seem reasonable based on the published electric fuel pathways that are typically negative 500 CI or lower.

### **Update the Tier 1 GREET Model for Standard Dairy Projects**

CalBio recommends CARB hold a workshop specifically to discuss improvements that could be made to the Tier 1 Simplified CI Calculator for Biomethane from Anaerobic Digestion of Dairy and Swine Manure (GREET Model). The GREET Model in its current form contains several flaws which force project developers to use the Tier 2 pathway process for projects that should otherwise be able to use the Tier 1 approach.

Suggestions to improve and simplify the model for a broader utilization of the Tier 1 approach include the following:

- CARB should integrate the standard modifications that have been
- CARB should allow the reporting entity to quantify project-specific fugitive methane levels, even if lower (or higher) than the current defaults.
- Formulas should be updated to dynamically consider the number of months being reported to appropriately quantify annualized baseline and project emissions.
- RNG and manure trucking should be added as an option to accommodate "virtual pipeline" and shared digester projects.
- The ability to report site-specific management of digester effluent.
- Simplified sector-wide default assumptions related to lagoon cleanouts used in determining baseline methane emissions should be adopted.

Furthermore, a separate standardized Tier 1 calculator should be developed for pathways which use electricity generated from dairy biogas in electric vehicles.

One approach to address project variability concerns is to adopt a California-specific Lagoon Digester Tier 1 pathway. Over 50 such pathways have or will be submitted to CARB and they are substantially similar in design, dairy and environmental regulatory requirements, and technology. CARB has now approved dozens of these pathways and can confirm the repeatability of this standard package.

### **Allow for Book & Claim RNG to be Utilized for Electricity Generation**

CalBio provides the following comments requesting CARB recognize RNG utilized for electricity generation be allowed as an eligible pathway type under the existing "Book & Claim" framework. Under the current regulation, entities can generate LCFS credits by producing a low-CI transportation fuel such as RNG and injecting it into a common carrier natural gas pipeline where it is matched to a CNG fueling station, refinery, or hydrogen facility without having to physically trace the molecules. CARB recognizes that this paper transaction to generate LCFS still results in lower GHG emissions in each fuel's pathway. While virtually all RNG is delivered this way to CNG stations in California, the same cannot be said for

CalBio Comments to CARB's "2nd Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard" (continued)

the use of directed biogas RNG to generate renewable electricity. More renewable electricity is needed to charge California's growing fleet of battery electric vehicles (BEVs) and support a more resilient and reliable grid.

CalBio respectfully requests CARB revise its Book & Claim policy and extend it to apply when directed biogas RNG is used to generate electricity for recharging battery-electric vehicles (BEVs) at a location physically separated from the biogas or hydrogen production. It is important that any changes made to this part of the LCFS allows flexibility. In this way, the policy change we recommend can help "accelerate ZEV refueling infrastructure" in California.

We would like to thank CARB for the opportunity to comment and we look forward to engaging further on the topics above.

Sincerely,

A handwritten signature in black ink, appearing to read "Andrew Craig". The signature is fluid and cursive, with the first name "Andrew" written in a larger, more prominent script than the last name "Craig".

Andrew Craig  
Vice President, Greenhouse Gas Programs  
California Bioenergy LLC