



August 27, 2024

Chair Liane Randolph and Members of the Board California Air Resources Board
1001 I St.
Sacramento, CA 95814

RE: Newtrient LLC Comments on the Proposed Amendments to the Low Carbon Fuel Standard

Dear Chair Randolph and Members of the Board,

Newtrient appreciates the opportunity to comment on the proposed amendments to the Low Carbon Fuel Standard (LCFS). Newtrient was founded by leading milk cooperatives and organizations, representing 20,000 dairy farmers producing approximately half of the nation's milk supply. Newtrient delivers solutions to environmental and economic challenges, including advancing manure management technologies and products. Through a team of credible technical experts in manure management systems, nutrient recovery, renewable energy, and environmental asset markets, Newtrient helps dairy farms, and the dairy industry reduce its environmental footprint.

Newtrient would also like applaud the success that has been achieved by the LCFS program as was announced in August 2023, when the California Air Resources Board (CARB) announced that in Q1 2023 clean fuels replaced more than 50% of the diesel used in the state for transportation purposes, equating to nearly two billion gallons of avoided fossil diesel use in 2022.¹ This further underscores the success of the program and continued need for the LCFS to deliver GHG reductions from the transportation sector.

As we have stated in previous comments, two programs directed by the California Department of Food and Agriculture (CDFA) have been particularly vital to the progress California has made. According to the 2023 CARB Mid-Year Data Update report on the cumulative progress of the

¹ California Air Resources Board. *For the first time 50% of California Diesel Fuel is replaced by clean fuels.* August 23, 2023. <https://ww2.arb.ca.gov/news/first-time-50-california-diesel-fuel-replaced-clean-fuels>

California Climate Investments Program (CCIP), the Dairy Digester Research and Development Program (DDRDP) and the Alternative Manure Management Program (AMMP) have received a total of \$309.1 million in funding and have reduced 23.2 million MTCO₂e. The funding for these programs represents 1.86% of the California Climate Investments program as of May 31, 2023, but the GHG reductions from these two programs represent 23.69% of the total for all California Climate Investments programs².

Of the 78 subprograms listed in the 2023 CARB Mid-Year Data Update report on the cumulative progress of the California Climate Investments Program as of May 31, 2023, only the DDRDP, has produced a GHG reduction at a cost of less than \$10 per MTCO₂e. The DDRDP program has the largest GHG reductions of any single subprogram (22.1 million MTCO₂e) and represents the single most effective program in the overall strategy to achieve the ambitious climate goals set by the State of California.

In December of 2022, researchers at UC Davis published the study, *Meeting the Call: How California is Pioneering a Pathway to Significant Dairy Sector Methane Reduction* in which they stated “...analysis shows that continued implementation and commitment to the incentive-based climate smart solutions that are currently driving voluntary dairy methane reduction in California should, by 2030, achieve the full 40 percent reduction in dairy methane sought by state regulators without the need for direct regulation.”³

With our support of CARB and the LCFS in mind, Newtrient would like to offer the following comments on the proposed amendments to the Low Carbon Fuel Standard:

Strengthening Carbon Intensity (CI) Targets

Newtrient applauds CARB and is encouraged to see that the proposed amendments aim to set more ambitious carbon intensity targets. A strong CI reduction target is a critical component for driving down (GHG) emissions in the transportation sector, reducing reliance on petroleum fuels, and transitioning to electric vehicles where feasible. We are pleased to see that staff have proposed a more aggressive step-down of 9% in the 15-day changes. This is a much-needed

² California Climate Investments Program: 2023 CARB Mid-Year Data Update (May 31, 2023), (https://ww2.arb.ca.gov/sites/default/files/auction-proceeds/ci_2023mydu_cumulative_statistics.pdf)

³ Kebreab, Ermias, Ph.D., Mitloehner, Frank, Ph.D., and Sumner, Daniel A., Ph.D., Meeting the Call: California is Pioneering a Pathway to Significant Dairy Methane Reduction (December 2022), available at: <https://clear.ucdavis.edu/news/new-report-california-pioneering-pathway-significant-dairy-methane-reduction>

market correction, to align targets with available supply, which has been delivered to the LCFS program in excess in recent years, creating a credit bank. While this alone will not fully address the oversupply of credits in the cumulative credit bank, this single adjustment will translate into millions of additional tons of GHG emission reductions that would've otherwise gone unabated.

While we believe that the proposed 9% step-down in stringency is a good start at course correcting the market, we also believe that an Auto-Acceleration Mechanism (AAM) is still needed to respond to clear overperformance of the program and to send an unambiguous market signal to investors that the program is nimble and will respond to opportunities to deliver additional GHG reductions rather than “add to” an excessively large credit bank that is at odds with the objectives of the program. The AAM is a necessary complement to the CI target adjustment and as designed, will send a clear, supportive, and unambiguous market signal to continue investments in clean fuels by tightening the program in the event overperformance occurs. Adoption and implementation of this mechanism will ensure that potential emission reductions are not left on the table and will help California reach its climate goals faster if triggered.

Avoided Emission Crediting

The proposed amendments in the 45-day package sought to phase out avoided emission pathways for projects that break ground after December 31, 2029, for biomethane used as a transportation fuel through 2040 and for biomethane used to produce hydrogen through 2045. The 15-day changes aim to expand this phase out to projects breaking ground before January 1, 2030, restricting the total number of crediting periods for avoided methane emissions from three consecutive 10-year periods to two. Newtrient believes that this is inconsistent with the incentive-based approach outlined in SB 1383 and currently being implemented in California. Moreover, eliminating or phasing out the avoided methane crediting in the dairy sector would lead to an inability to meet the state's targeted methane reduction goals and result in significant dairy methane emissions leakage. Avoided methane crediting is a key component of dairy methane reduction incentives that has achieved significant reductions to date and as stated previously, is one of the most effective tools to meet California's GHG goals.

According to a UC Davis analysis:

... misguided efforts to change course by forced coercion to pasture-based operations, direct regulation of dairy farms, or limitation on dairy digesters incentives will not only fail to achieve the desired greenhouse gas emissions reductions but will exacerbate the

problem by causing significant emissions leakage. Revenue streams that incentivize investment in biogas capture and beneficial use are critical. Phasing out of avoided methane crediting in the dairy sector would jeopardize existing projects, making them uneconomic in the long-term, and dry up investment capital for the additional digester projects sought by CARB to achieve the state’s ambitious and aggressive targets.⁴

The ultra-low carbon indices within the dairy Anaerobic Digestion (AD)/Biogas sector are real and well-vetted within the national laboratory-developed Greenhouse Gases, Regulated Emissions, and Energy Use in Technologies (GREET) model. As such, anyone who values science must appreciate their role in meeting GHG and climate goals, and not selectively replace them with non-scientific reasoning.

The low carbon intensity of these projects arises from a combination of well-to-wheels carbon gains plus the methane offsets from baseline methane emissions from manure management, storage, and application. Methane offsets from baseline emissions are a legitimate accounting practice as baseline, pre-AD/biogas systems emissions exist, and are largely removed through the installation of the AD/biogas system.

CARB has carefully and correctly set the boundaries of animal agriculture and clearly defines the baseline scenario of California dairies by providing a diagram of the LCFS boundaries and indicating the project related components in the Compliance Offset Protocol for Livestock Projects Capturing and Destroying Methane from Manure Management Systems Adopted: November 14, 2014.

Some groups misrepresent the dairy industry and, as in the case of the comments submitted and made during public input sessions, misrepresent the benefits of the use of anaerobic digestion and renewable energy production on dairy farms. Anaerobic digestion systems have scientifically supported GHG reductions. By calling the scientifically supported GHG reductions achieved by AD systems “artificially inflated,” they show that they are not willing to discuss the science and the significant impact of AD on reducing GHG emissions from farms, but instead label and denigrate these projects with their own unscientific opinions.

⁴ Kebreab, Ermias, Ph.D., Mitloehner, Frank, Ph.D., and Sumner, Daniel A., Ph.D., Meeting the Call: California is Pioneering a Pathway to Significant Dairy Methane Reduction (December 2022), available at: <https://clear.ucdavis.edu/news/new-report-california-pioneering-pathway-significant-dairy-methane-reduction>

Revenue streams that incentivize investment in biogas capture and beneficial use are critical. Phasing out of avoided methane crediting in the dairy sector would jeopardize existing projects, making them uneconomic in the long-term, and dry up investment capital for the additional digester projects sought by CARB to achieve the state's ambitious and aggressive targets.

Avoided methane emissions are a critical part of science-based, life cycle assessments, and their inclusion in carbon intensity scores are consistent with internationally recognized standards of carbon accounting. The scientific evidence for this is robust and recognizes that the baseline includes methane emissions that would otherwise be released into the atmosphere. Recognizing methane and its role as a short-lived climate pollutant, while incentivizing its removal from the atmosphere, has proven highly successful in supporting the reduction of millions of metric tons of carbon dioxide equivalents. We strongly encourage CARB to continue its longstanding commitment to a science-driven framework that utilizes proven science including Argonne National Laboratory's GREET model.

In the event CARB maintains its plans to phase out eligibility for avoided methane in vehicle fuels, we encourage CARB to be clear that it is a policy decision associated with CARB's efforts to transition biomethane into non-vehicle sectors (e.g., residential, commercial, and industrial uses). CARB should be explicit that the policy decision to discontinue recognition and eligibility of avoided methane emissions in vehicle pathways should not be interpreted as a departure from the established rigorous science of accounting for the benefits of avoiding methane emissions which continues to be appropriate for non-vehicle sectors.

Deliverability Requirements

The 15-day changes added a provision to section 95488.8(i)(2) that would allow the Executive Officer to approve a gas system map that identifies transcontinental and connected pipelines for which gas flows to California at least 50% of the time. Should the Executive Officer approve this map before July 1, 2026, then entities reporting under bio-CNG, bio-LNG, and bio-L-CNG must demonstrate physical flow to the state 50% of the time after December 31, 2037, not January 1, 2041. It appears that the deadline for biomethane used as an input to hydrogen production remains January 1, 2046.

While it appears that the addition of a gas flow map, for which the Executive Officer isn't technically required to approve, may address some implementation questions, this modification does not address the overall lack of detail with the proposal or the reality that

an implementation date of 2037 or 2041 will be difficult to achieve. As mentioned in our February 16, 2024, comments, the ABC believes that CARB should require further guidance on the proposed deliverability requirements as they lack detail. The proposed amendments aim to adopt the California Renewable Portfolio Standard (RPS) requirement of ensuring biomethane injected into a common carrier pipeline physically flows towards California 50% of the time. Yet, the references RPS framework does not provide any clarity on how these biomethane molecules can be traced to California, how a 50% average flow toward California may be modeled, nor expected geographical indications of regions anticipated to remain eligible for book-and-claim accounting. While the proposed map may aid geographical clarity for some projects, those projects that remain outside geographic boundaries, but may otherwise be able to demonstrate deliverability, are left without clear guidance on how they may meet the requirements. We look forward to discussing these provisions with CARB staff in the coming year and highly encourage CARB to conduct a full and transparent public process to inform any gas maps the Executive Officer may consider.

Hydrogen

Newtrient disagrees with the modification in the 15-day changes to exclude hydrogen produced with blended renewable and fossil gas from receiving LCFS credit by January 1, 2030. Specifically, this language constrains entities that are currently blending biomethane and fossil natural gas to produce a lower-CI hydrogen via steam methane reforming (SMR). This change, which was not discussed in the 45-day package or previous public workshops, has the potential to limit the availability of low-CI hydrogen during a time when hydrogen produced via electrolysis and renewable electricity is still struggling to scale up and reach cost parity.

True-Up Provision

Newtrient is pleased to see the proposed amendments to expand the credit true-up to include periods using temporary pathway CIs after annual verification following stakeholder input highlighting the benefits of the credit true-up. Based on our understanding of the language, reporting that is submitted March 31, 2025, will cover the years 2023-2024 and include a credit true-up back to 2023. We do however take issue with the proposal including true-up provisions that adjust credits based on verified operational CIs relative to certified CIs, applying a penalty of four times the spread for shortfalls. The

justification for this 4X multiplier is unclear, as a smaller multiplier, such as 2X, would still effectively discourage overconfidence in CI analysis. Finally, we urge CARB to establish a temporary CI pathway for biogas-to-electricity projects, as the absence of such a pathway currently puts biogas-to-electricity at a disadvantage compared to biomethane projects, which already have access to temporary CI pathway.

Conclusion

Over the past year and a half, CARB staff have held numerous public workshops to gather feedback on potential changes to the program, where has Newtrient participated, and we are pleased to see that the rulemaking is nearing completion.

Thank you for the opportunity to comment on the proposed amendments, and we look forward to engaging with CARB staff on these topics.

Sincerely,

A handwritten signature in black ink, reading "Mark Stoermann". The signature is fluid and cursive, with a long horizontal line extending from the end.

Mark Stoermann
Chief Operating Officer
Newtrient LLC