



**February 20, 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 applauds the leadership the California Air Resources Board (CARB) is taking on climate change and appreciates being a part of this important dialogue surrounding potential changes to the Low Carbon Fuel Standard (LCFS). The dairy industry has answered the call to action and is embracing environmental responsibility - from family farms in California, to farms across America. By installing and utilizing biogas systems, farms are offering practical solutions to the challenges CARB seeks to address.

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 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 MTCO<sub>2e</sub>. 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 programs<sup>1</sup>.

There are 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 one of these subprograms, the DDRDP, has produced a GHG reduction at a cost of less than \$10 per MTCO<sub>2e</sub>. The DDRDP program has the largest GHG reductions of any single subprogram (22.1 million MTCO<sub>2e</sub>) 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.”<sup>2</sup>

With our support of CARB and the LCFS in mind, Newtrient would like to offer the following suggestions for improving 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. However, we believe that there is both room and a need to go further. Using the numbers from CARB’s Quarterly Summary Report and averaging the rate of credit growth over the past five available quarters, it shows that the current scale-up in the production of clean fuels will continue to generate low carbon

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<sup>1</sup> 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](https://ww2.arb.ca.gov/sites/default/files/auction-proceeds/ci_2023mydu_cumulative_statistics.pdf))

<sup>2</sup> 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>

fuel standard credits with the cumulative bank likely eclipsing 25 million by the end of 2024.<sup>3</sup> The proposed increase in stringency falls short of what the market can deliver, and as a result, is missing an opportunity to deliver millions of additional tons of reductions in greenhouse gas emissions called for in statute and further underscored in the update to the state’s Scoping Plan as approved by the Board in December 2022.

Newtrient believes that there are two key adjustments that CARB can make to the stringency as part of the 15-day change process that do not require new economic or environmental analysis as they fall within the scope of the work CARB has already included in the Initial Statement of Reasons (ISOR), specifically, by increasing the step-down as well as pulling forward the effective date for triggering the Auto Acceleration Mechanism (AAM) CARB can “recapture” reductions in GHG emissions that will otherwise be lost with the current proposal. Doing so will also send a clear, and supportive market signal to continue investments in clean fuels that would otherwise be constrained and subdued by the current proposal. The below description provides additional detail on these two recommendations.

While we believe that the proposed 5% step-down in stringency is a good start at course correcting the market, it simply does not go far enough considering the size of the cumulative credit bank, which is anticipated to increase its rate of growth as new clean fuel projects that have been or are being constructed bring more clean fuels to market. Within the boundaries of staff’s existing environmental and economic analysis, the step-down must be increased by at least seven percent (7%), which, for perspective, translates into a 2030 target of at least 32 percent (32%) reduction in the CI relative to the 2010 baseline. While a 7% step-down will still leave many credits in the cumulative credit bank, this single adjustment will translate into millions of additional tons of greenhouse gas emission reductions that would’ve otherwise gone unaddressed.

As designed, the first year that the AAM could impact program stringency is 2028--four years from now! The concept and need for the AAM is 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. Waiting four

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<sup>3</sup> California Air Resources Board, LCFS Data Dashboard Figure 3 – Quarterly Summary Report.  
<https://ww2.arb.ca.gov/resources/documents/lcfs-data-dashboard>

years is too long, and Newtrient recommends pulling the date for triggering the AAM forward. The AAM should be based on 2025 data with the trigger assessment occurring in May 2026, and the AAM being applied in 2027 providing the applicable conditions are met, thus increasing the program stringency for 2027. Relying on 2025 as the first eligible year for triggering the AAM is appropriate as one of the main objectives of the step-down is to bring the program into balance. Therefore, assessing the impact of the step-down on the market based on 2025 data, including the cumulative bank and the rate of credit to deficit generation, is aligned with the principles of the program. With this approach, the AAM could theoretically increase the stringency of the program in 2027 and 2029 (i.e., triggered twice prior to 2030 providing the conditions for the triggering the AAM are satisfied), better ensuring that potential emission reductions are not left on the table in the event the program continues to overperform following the Board’s adoption of the amendments.

### **Avoided Emission Crediting**

The proposed amendments seek 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. 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.<sup>4</sup>

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.

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

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<sup>4</sup> 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>

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.

### **Book-and-Claim and Deliverability Requirements**

Book-and-Claim has allowed the LCFS to evolve by supporting investments in clean fuels that have helped the program remain one of the most influential and successful transportation decarbonization policies in the country. To date, CARB's approach to indirect accounting in the program has been pivotal to its success, including its principles of driving greenhouse gas emissions down, facilitating investments and production of clean fuels, and in supporting increased clean fuel options for consumers.

Newtrient is requesting CARB provide further guidance on the proposed deliverability requirements. 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. This referenced RPS framework does not, however, provide clarity on how those biomethane molecules can be traced to California, how a 50% average flow toward California may be modeled, nor does it provide the expected geographical regions that will remain eligible for book-and-claim accounting. Moreover, limiting

book-and-claim to physical deliverability requirements risks the LCFS becoming a less effective decarbonization program and undermines California’s interest in rapidly ramping up the production and use of renewable hydrogen—a foundational principle in establishing California’s initiative to accelerate renewable hydrogen projects and the necessary infrastructure now known as the ARCHES program---despite CARB proposing to implement deliverability requirements for hydrogen projects utilizing biomethane five years later than projects using biomethane for CNG vehicles.

It remains to be seen if and how the proposed deliverability requirements can be harmonized with the California Public Utilities Commission SB 1440 program, as suggested. It has been clear over the past year that CARB was exploring potential deliverability requirements. However, throughout that process an actionable plan outlining the strategy and evidence necessary for imposing delivery requirements never emerged. Rather, stakeholders continued to raise concerns about the lack of a feasible plan which continues with the ambiguity of proposed amendments. Therefore, Newtrient recommends that the deliverability requirement language be removed from the current amendments to allow for further stakeholder engagement to support a clear and actionable plan for consideration in a subsequent rulemaking.

### **True-up Provisions**

The proposal includes true-up provisions where verified operational CI’s are drawn on to potentially adjust the credits based on certified CI’s. The proposal indicates that a shortfall (i.e., a verified operational CI that is higher than the certified CI upon which project credits were generated) is subject to a “penalty” that is 4 times the spread for the applicable volume of fuel. The rationale for a 4X spread is unclear as a smaller spread (e.g., 2X) serves as a significant disincentive to producers for being overconfident in their analysis. Further, the language indicates that in the event the operationally verified CI is lower than the certified CI (i.e., it failed to generate as many credits as it could have) the Executive Offer (EO) “may” make the appropriate adjustment (true-up) by awarding additional credits to the applicable fuel reporting entity. The word “may” should be deleted. If the operationally verified CI, including an affirmative verification statement, is lower than the certified CI that was the basis for credit generation, the EO “must” award the supplemental credits supported by the underlying documentation.

The concept of adjustment to credits based on operationally verified CI’s is sound. However, limiting the proposal to certified CI’s is a significant oversight. The proposal must be carried over and applied to temporary and provisional CI’s as fuel providers may rely on these CI’s for



months, or even years, as more refined pathways are evaluated and subsequently approved by CARB.

Temporary CI's have been an important option under the program, but applicants can be reluctant to use them given the heavy credit discount relative to facility-specific provisional CI's. Correcting for any under (or over) crediting while a temporary CI is used will help streamline and simplify the program as well as send a stronger signal to the market that investments in clean low-CI fuels will be rewarded. Further, including temporary CI's as part of the true-up process will reduce the pressure on CARB from developers to process LCFS applications quickly which has been an ongoing and growing challenge under the program. The concept of adjusting the awarding of credits based on operationally verified CI's is a key principle that supports innovation and must be reflected from project initiation, where a temporary CI is used, throughout the project's lifetime to properly account for and reward the associated reductions in greenhouse gas emissions. Credits should be awarded based on real-world operational experience and therefore adjusted accordingly when the temporary CI which is applied understates the benefits.

## **New Markets**

As the technology in the transportation sector continues to evolve and advance towards lower carbon alternatives, Newtrient members and the rest of the dairy industry are ready to serve these new markets, such as alternative jet fuel (AJF), low-CI hydrogen, as well as exploring opportunities where biomethane can be utilized outside of transportation. As these markets continue to grow, Newtrient asks CARB to remain mindful of the success of the historical framework of the program and to continue to apply it to these newer pathways and technologies, including the use of avoided emissions and book-and-claim.

If CARB's goal is to transition biomethane out of the vehicle sector, Newtrient strongly encourages CARB to ensure there continues to be a market for low-CI biomethane as it is an important decarbonization tool, especially in sectors that are hard to decarbonize. For example, the CPUC's SB 1440 program creates a biomethane procurement mandate for the state's largest utilities, however, the program limits dairy biomethane due to the credit it currently receives in the LCFS.<sup>5</sup> With CARB's intention of phasing out all biomethane crediting for transportation fuel by the end of 2040, it makes sense for the CPUC to integrate dairy

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<sup>5</sup> California Air Resources Board, *2022 Scoping Plan Update*, page 73. <https://ww2.arb.ca.gov/sites/default/files/2023-04/2022-sp.pdf>





biomethane into the SB 1440 program which will allow for more market choice and volumes for utilities to procure. The industrial sector is also another area where biomethane can help significantly reduce emissions, particularly at facilities that are large natural gas users and where electrification is not currently feasible. However, there isn't one, all-encompassing policy that drives dairy biomethane, and other low-CI clean fuels, towards that use case. Thus, Newtrient recommends that CARB, starting with the 2024 amendments to the LCFS, send a clear policy signal that dairy biomethane is a necessary and effective decarbonization strategy in these other sectors (e.g., residential, commercial, industrial) that are fundamental to the state meeting its ambitious GHG reduction targets.

## 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 Newtrient participated, and we're pleased to see that the rulemaking is nearing completion. Newtrient would like to underscore the importance of concluding this rulemaking as soon as possible. Any further delay to the rulemaking diminishes the necessary signal the market needs to facilitate and encourage continued investments in clean fuels. To continue the significant and unprecedented progress made by CARB and the dairy industry of California under the guidance and support of the CDFA, Newtrient urges CARB staff and the Board to finalize this rulemaking no later than the end of Q2 2024.

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 that reads "Mark Stoermann". The signature is fluid and cursive, with a long horizontal line extending to the right.

Mark Stoermann  
Chief Operating Officer  
Newtrient LLC