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Submitted via electronic submittal: https://ww2.arb.ca.gov/public-comments/low-carbon-fuel-standard-workshop-april-10-2024

May 10, 2024

The Honorable Liane Randolph, Chair
California Air Resources Board
1001 I Street
Sacramento, CA 95814

Re: Low Carbon Fuel Standard Workshop, April 10, 2024

Dear Chair Randolph:

Brightmark LLC ("Brightmark") appreciates the opportunity to submit comments on the Low Carbon Fuel Standard (LCFS) Workshop, held April 10, 2024 ("April Workshop") regarding options to the LCFS proposed amendments released in December 2023 ("Proposed LCFS Amendments"). We appreciate the California Air Resources Board (CARB) engaging with stakeholders regarding changes and updates to the LCFS program.

California's leadership in climate action through aggressive reduction targets and corresponding programs, like the LCFS, accomplishes actual pollution reduction and public health benefit outcomes by establishing market certainty to drive private investment. The state's leadership and programs provide key solutions to the global climate challenge, however, more needs to be done.

The Q4 2023 Data Summary reported a record quarterly increase in the credit bank resulting in over 23.5 million cumulative credits at the end of 2023. With the regulation as proposed, the bank will reach 30-35 million credits by the end of 2024 and continue to increase in size in 2025, thereby further depressing credit prices and disincentivizing current and future investments needed to meet California's climate goals.

The Proposed LCFS Amendments are **insufficient** to maintain and increase investment in the LCFS program and **risk stranding existing assets** that have relied on the program with the bank this large.

As with other workshops and rule proposals, the credit market has shown, through price indifference following the April Workshop, that the proposed changes are insufficient. Current LCFS prices indicate that the proposal in the April Workshop has not gone far enough in the April Workshop, the Proposed LCFS Amendments regarding Carbon Intensity (CI) targets, CI step-down, and the Auto Acceleration Mechanism (AAM). This trend in credit market decreases following CARB proposed rule announcements includes after the February 2023 workshop, after posting of the Standardized Regulatory Impact Assessment (SRIA) in September 2023, and after

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the release of the Proposed LCFS Amendments in December 2023. If the current prices continue, there is a real threat of stranded assets for current investments and limiting, if not eliminating, future investment.

The delays in the regulatory amendment process have prevented the implementation of the amendments in the first quarter of 2024. It is imperative that CARB implements a steep CI step-down to ensure that the bank returns to post 2023 levels (a reduction of approximately 23 million credits) by the end of 2025. This will help stabilize credit prices to maintain existing investments and increase future investment.

We support CARB using the three main levers: (1) CI targets, (2) CI step-down, and (3) AAM in the April Workshop and Proposed LCFS Amendments. To maintain existing investments, encourage future investments to meet long-term climate goals, and provide a stable credit market, CARB should develop a mix of percentage decreases based on an outcome that stabilizes the credit bank from its currently unsustainable oversupply levels.

The credit bank is projected to reach 30-35 million credits through the end of 2024 reporting, with the bank projected to increase in size by up to 7-12 million credits in 2024 alone. Increases of credits in the bank in 2024, because of delayed rule implementation, are causing downward price pressure needing immediate attention.

Unfortunately, in the April Workshop, the most ambitious step-down target of 9%, coupled with a 2030 CI target of 30%, will not adequately address the credit bank oversupply. Of the three options presented, Brightmark supports the most stringent 9% step-down, but to maintain and increase investment in the LCFS, a more stringent 10-12% step down should be implemented and allow the AAM to be triggered earlier.

California has a long history of supporting aggressive actions to address environmental challenges, like climate change. Governor Newsom has called for an even more aggressive approach to achieve climate neutrality. As CARB has stated, "[s]ignificant reductions in transportation emissions are needed to achieve state's air quality and climate goals."

We believe the reduction target should be 40% by 2030, combined with a step-down of 10-12% in 2024. Because of the delay in LCFS rule implementation, the credit bank increases through 2024 are not addressed in the CI targets and step-down proposals. If not administratively possible in 2024, then a 10-12% step-down in 2025 should be implemented. As with California's Renewable Portfolio Standard program, the industry rises to the occasion with aggressive targets.

Brightmark Overview

Brightmark was founded in 2016 with the mission of solving some of the greatest environmental challenges facing the United States. One of these solutions is capturing methane emissions from organic waste and producing biogas and digestate through the natural process of anaerobic

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digestion. Agricultural activities contribute approximately 30% to total U.S. greenhouse gas (GHG) emissions, a significant portion attributable to methane emissions from animal waste.[1]

Brightmark operates over 30 net-negative carbon intensity projects on dairy farms across the U.S., including in California. Through these projects, Brightmark derives RNG from biogas captured from organic waste streams, cleaned, and conditioned to achieve the quality standards necessary to blend with or substitute for geologic natural gas. We work with dairy farmers to harness the energy potential of their dairy manure, provide them with solutions to meet their greenhouse gas reduction goals, and enhance farm profitability. We are committed to reimagining waste and building projects that benefit farms, their dairy, their communities, and the planet.

These facilities provide a win/win scenario for farmers and local communities; they help address methane emissions from organic waste produced locally and turn that waste into renewable energy and fertilizers. To date, our projects have offset over 950,000 metric tons of CO2eq.

The LCFS program, and the certainty it provides to the market, is a key factor in the long-term success of projects like these in addressing environmental challenges. The CARB LCFS workshops throughout 2022 and 2023 highlighted the success of the LCFS, showing that the program is over-performing and helping California meet its reduction goals sooner than originally targeted.

An Auto Accelerator Mechanism Provides an Appropriate Guardrail Against Low Prices and Increases Investor Certainty

As was stated above, current oversupply issues are causing challenges to the LCFS program. In addition to more stringent near-term targets, CARB should adopt a target accelerator mechanism to reduce the likelihood of future oversupply scenarios. An accelerator mechanism is not a substitute for appropriate changes in the targets. Still, it does offer an attractive additional tool to CARB if they wish to minimize future minor target-adjustment rulemakings. The key term here is "future oversupply scenarios." The LCFS is already oversupplied with that oversupply projected to increase by 30-40+% higher from now through 2024. A sufficient step-down must be implemented where the AAM would not be triggered in the first year after the new amendments (2026). However, if a sufficient step-down is not implemented, the LCFS amendments should allow for the implementation of the AAM based on the 2025 data year.

The details of the accelerator mechanism mechanics proposed by AJW at the May Workshop are well thought out and administratively feasible. A high credit-to-deficit (C/D) ratio and a high bank-to-deficit (B/D) ratio indicate an imbalance in credit supply and demand fundamentals. We encourage CARB to allow for a cumulative Credit/Deficit (C/D) bank trigger instead of waiting

[1] U.S. Department of Agriculture Economic Research Service, citing the U.S. Environmental Protection Agency *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2021,* April 2023 (EPA 2023).

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for annual C/D numbers. Also, as proposed, the C/D ratio should be adjusted from 1.0 to 0.8. If the B/D ratio can be triggered, then the bank is too large. However, if a C/D ratio is between 0.8-1, then there will not be a significant enough decrease in the bank to impact prices and lead to future investment.

A dual trigger, consisting of both a C/D ratio and a B/D ratio, as proposed by AJW, will likely strike an appropriate balance and only activate when there is a high likelihood of systemic long-run oversupply. The proposed trigger values should be reassessed appropriately based on historical data from the CA LCFS system. Once the trigger conditions are met, responding with a jump ahead in compliance targets is a straightforward and transparent way to increase stringency. Aligning the timing of correction with the existing process to address significant undersupply (through the Credit Clearance Market) is appropriate and straightforward.

- **Policy recommendation:** To address current and anticipated credit oversupply that threatens the viability of RNG projects, a more aggressive carbon intensity target with an increase to at least 40%

- **Policy recommendation:** A CI step-down of 10-12% from the current regulation of 13.75% to at least 23.75% in 2025 to address current oversupply issues and increases in the bank that will occur in 2024. This level of ambition should also be implemented in Q3 or Q4 of 2024, if administratively possible.

- **Policy recommendation: I**n the AAM,
    - allow for a cumulative Credit/Deficit (C/D) bank trigger, instead of waiting for annual C/D numbers, and adjust the C/D ratio from 1.0 to 0.8, and
    - allow for the AAM to be triggered as early as 2025.

Focusing on Solving the Problem

The goal of the LCFS is to reduce the carbon intensity of transportation fuels through greenhouse gas emission reductions. The LCFS is currently the only market with the economic incentive to develop carbon negative projects, including dairy biomethane. Due to the low energy density feedstock and higher required residence time, dairy digester projects result in higher costs per MMBtu produced due to the low energy density feedstock and higher required residence time.

The success and market certainty of the LCFS program should be based on increasing the demand for credits, not limiting fuels and credit generation. Increasing demand for credits will result in greater overall emission reductions and a more diverse and stable credit pool. Avoided methane crediting should continue in LCFS until a realistic and proven replacement policy is implemented. Significant investments have been made in existing and future projects based on the current rules and trust in the LCFS program that emission reductions from these projects would be valued for delivering positive outcomes.

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Brightmark supports the continued alignment of deliverability requirements for RNG with that of the federal Renewable Fuel Standard program. Biomethane projects that can theoretically deliver to California should be included, as the program currently operates. Current rules require that a project's CI score measure the additional carbon impact of traveling further in the CI calculation. Unlike transmission power grids, gas pipelines can deliver biomethane from the East Coast to the West Coast.

Market and Regulatory Certainty

The success of the LCFS to date shows the market's ability to deliver together in partnership with CARB. The LCFS, at its core, is a market-based, fuel-agnostic regulation that does not pick winners and allows for all fuels to compete.

Market and regulatory certainty are based on trust in California as a reliable place to sell low-carbon fuel and credits to meet and exceed climate goals. However, to continue to achieve aggressive targets, CARB must promote a long-term, stable environment to encourage investors and teams to create new and maintain existing CI-reducing projects. This requires that credit prices maintain a level for capital recovery of previous and future investments.

The ultimate goal of California and the market participants, like Brightmark, is decarbonization and eventual carbon neutrality of not only transportation, but all sectors of the economy. To reach this goal, California needs negative CI fuels for transportation and negative CI biogas for other uses (power, thermal, etc.). In-state and out-of-state RNG production are connected, the same developers that develop instate projects develop out-of-state projects. The current RNG production's success will lead to the development of additional RNG projects necessary to decarbonize the non-transportation sectors to achieve long-term goals.

Negative CI fuels require significant economic incentives and market certainty, which has eroded with current LCFS prices. Long-term depression of credit prices will lead to stranded assets and a lack of private investment in decarbonizing California's economy. CARB should send a strong signal by dramatically increasing the LCFS reduction targets and help return certainty to the market.

We appreciate the opportunity to provide comments. Please do not hesitate to reach out with any questions.

Respectfully Submitted,

Bob Powell,
Founder & CEO