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September 19, 2022

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

Re: August 18th 2nd Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard

Dear Chair Randolph:

Brightmark appreciates the opportunity to submit comments on the *August 18th 2nd Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard ("August 18 LCFS Workshop").* We appreciate the California Air Resources Board (CARB) members and staff in engaging with stakeholders regarding potential changes to the Low Carbon Fuel Standard (LCFS) program.

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 through the natural process of anaerobic digestion produce biogas and digestate. Methane is a dangerous Short Lived Climate Pollutant (SLCP). Methane along with black carbon (soot), and fluorinated gases (F-gases, including hydrofluorocarbons [HFCs] "have an outsized impact on climate change in the near term, compared to longer-lived GHGs, such as CO2. That means they have an outsized impact on climate change in the near term – and means that targeted efforts to reduce short-lived climate pollutants emissions can provide outsized climate and health benefits, within weeks to about a decade". [1]

In addition to reducing fugitive methane emissions from manure, biogas produced through state-of-the-art anaerobic digesters can be further processed and converted into renewable natural gas (RNG) for use as a transportation fuel or used to decarbonize the gas and electricity sectors. Meanwhile, the digestate can be utilized as a fertilizer or soil amendment. Even when combusted, biogas and renewable natural gas may have carbon intensities that are neutral to negative due to averted methane emissions and their use to displace carbon intensive fossil fuels.

Brightmark has projects on dairy farms across the U.S., including in California. 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

[1] California Air Resources Board, *Draft 2022 Scoping Plan Update,* (released May 10, 2022) p. 23 "The United Nations Environment Programme's Global Methane Assessment advises that achieving the least-cost pathways to limit warming to 1.5°C requires global methane emission reductions of 40–45 percent by 2030 alongside substantial simultaneous reductions of all climate forcers, including CO2 and SLCPs."

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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 at the local level and turn that waste into renewable energy and fertilizers.

The LCFS program, and the certainty it provides to the market, is a key factor in the long-term success of projects like these to address environmental challenges. In CARB staff's presentation on August 18th highlighted the success of the LCFS program by showing that the program is over-performing and helping California meet its carbon reduction goals sooner than was originally targeted.

During the *August 18 LCFS Workshop*, the CARB staff presentation addressed opportunities to streamline program implementation. Brightmark's comments to each of the proposals are below.

1. Deemed Complete Date

Brightmark supports aligning Tier 1 and Tier 2 deemed complete dates to when the verification body issues a positive or qualified positive (+/Q+) validation statement, as long as there are Tier 1 calculator modifications to accurately represent most RNG pathways. Ensuring consistency across Tier 1 and Tier 2 applications will help eliminate confusion and having a model consistent with most RNG pathways especially Dairy and Swine, will streamline the process. There is a Tier 1 calculator for Dairy and Swine pathways, but only one Tier 1 pathway has been certified, almost three years ago, and the remaining 92 are Tier 2 pathways.

2. Temporary Pathway Credit True-Up Plus A Full Annual True-Up

Brightmark supports temporary pathway credit true-ups as proposed. This corrects for under crediting to pathway holders who choose to use temporary CI scores at the outset of their credit generation. The regulation allows for taking back credits when a CI score is adjusted upward – and this uses the same mechanism for adjusting downward from the more conservative temporary CI score. This change would provide more market certainty by:

- reducing any negative financial impacts from application processing delays,
- reducing the pressure on CARB from pathway holders to process LCFS applications quickly, and
- allowing developers to send gas immediately to CNG dispensing in California without a loss in revenue from using the temporary or the delay in revenue by avoiding the need for the three-quarter book-and-claim and complicated storage contracts.

For implementation of this proposal, Brightmark recommends that upon certification of a pathway application, CARB will automatically issue additional credits to correct for any difference between a verified operational carbon intensity and the temporary CI. By completing this true-up at the point of pathway application certification, it allows for the pathway applicant to receive the value of the true-up immediately.

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While CARB did not present this opportunity, Brightmark recommends and supports an annual true-up between verified operational and certified CIs. Facilities should be retroactively credited based on actual verified CI data rather than relying on the estimate established during pathway certification. Doing so would increase accuracy in crediting and better incentivize continuing improvements in the actual GHG emission profile of all pathways. The current annual verification process disincentivizes making capital intensive process improvements that rely on increased LCFS credit generation to make them economically feasible.

The existing rules require that if the verified operational carbon intensity is *higher* than the certified carbon intensity for a given reporting period CARB will invalidate such unwarranted credits. Providing a true-up to credit pathway holders if the opposite case is true—where the verified CI is *lower,* and the true benefit was initially underestimated—is necessary to avoid undercounting the actual GHG benefits of all pathways. If no full true-up is provided the system will *underrepresent the overall GHG benefits of the CFS program*, which is not in CARB's interest as the program is steered toward more ambitious targets in the forthcoming rulemaking.

Oregon's Clean Fuel Standard's current rulemaking is considering adding such a full true-up.[2] We've built from the Oregon language to facilitate incorporation by CARB into the California LCFS rule below:

> Annual Credit True-up. CARB will automatically issue additional credits from the prior year to correct for any difference between a verified operational carbon intensity and the certified carbon intensity if all of the following is true: (A) The pathway holder has successfully completed annual verification by receiving a positive or qualified positive verification statement for the relevant Annual Fuel Pathway Report, (B) The verified operational carbon intensity value for a given pathway is lower than the certified carbon intensity value used for initial crediting, and (C) the credit generator has received a positive or qualified positive verification statement for the relevant Quarterly Fuel Transaction Reports.

Allowing such a full true-up would facilitate the ability to look backward at the CI details of clean inputs (including RNG) used at fuel production facilities, rather than asking producers to commit firmly to what types of inputs they may buy (and from where) during the CI application process. It would also allow CARB to eliminate the somewhat confusing "provisional" status for pathways.

Perhaps most importantly, a full true-up would *provide further incentive to lower CI scores* (e.g., eliminate methane leaks, utilize clean energy, and increase process efficiency) on a going forward basis for each pathway (without requiring re-certification or adding to staff's administrative burden). Such a change would fully account for the true GHG reductions from

[2] See Oregon Clean Fuels Program draft, pg. 168: https://www.oregon.gov/deq/rulemaking/Documents/cfp2022pnp.pdfhttps://www.oregon.gov/deq/rulemaking/Documents/cfp2022pnp.pdf

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the policy, incent additional investment in low carbon fuels, and simply be fair treatment for credit generators looking to use the LCFS to create viable low carbon fuel business models.

3. Hydrogen Tier 1 Calculator

Brightmark supports the development of a Tier 1 H2 calculator pathway for Steam Methane Reforming (SMR) for RNG, direct supply and book-and-claim. Meeting California's climate goals need to continue to include a technology and feedstock neutral renewable fuels that are evaluated on a lifecycle carbon intensity basis. RNG to H2 can be another option for the LCFS program to meet and exceed the reduction targets.

4. Other opportunities

During the *August 18 LCFS Workshop*, the concept of a Low Carbon Intensity RNG-to-Electricity Pathway was discussed. Brightmark encourages CARB to consider developing a new temporary pathway for RNG to electricity. A temporary pathway would allow for RNG to electricity developers to generate some value while going through the application process, and with a true-up on temporary pathways, eventually generate the full value and realize the full emission reductions of their pathways. Developers will need to utilize the three-quarter book-and-claim process and lose 100% of the low-CI value during the application process if the pathway applications are not processed in time without a temporary pathway. The absence of a temporary pathway for low-CI RNG-to-electricity projects is a disincentive for new projects and the development of a new temporary pathway will allow for greater adoption in the electricity sector and accelerate CARB's desire to lower carbon emissions.

To meet California's ambitious goal of Carbon neutrality by mid-century, CARB must take a close look at the lifecycle carbon intensity of all resources and the opportunities for carbon negative emissions.

Because biogas from dairy anaerobic digesters reduces SLCP emissions from manure and displaces fossil fuels, its carbon intensity can be negative, and on a life cycle analysis basis, can be lower than other renewable energy resources including solar and wind power.

Brightmark urges CARB to focus on the lifecycle carbon emissions of all fuels and technologies under discussion. Moreover, CARB must ensure that the LCFS program metrics are technology neutral and lifecycle carbon intensity based.

Respectfully Submitted,

Bob Powell,
Founder & CEO