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August 8, 2022

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

Re: July 7th Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard

Dear Chair Randolph:

Brightmark appreciates the opportunity to submit comments on the *July 7th Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard ("July 7 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 also 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 reimagining waste and building projects that benefit farms, their dairy, their communities, and the planet.

[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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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. Our goal is to offset 8 million metric tons of CO2 with our renewable natural gas projects by 2025. 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.

1. Support for 2030 carbon intensity reduction target update and post-2030 carbon intensity targets

During the *July 7 LCFS Workshop*, the CARB staff presentation asked whether the 2030 carbon intensity reduction target should be updated from the current target of 20 percent to 25 or 30 percent.[2] Brrightmark supports changing the 2030 requirement to a 30 percent reduction by 2030. This change would help the LCFS program more closely align with the carbon emissions reduction requirement of SB 32 and the goal of carbon neutrality by 2045.

The CARB staff presentation also asked whether five-year interim targets should be set through 2045.[3] Brightmark supports setting five-year interim targets through 2045 to help adjust reduction targets to better meet the state's carbon neutrality goals and provide consistent market signals. Meeting the carbon neutrality goal by 2045 will benefit from interim targets so that the transportation sector can continue to adjust, through the adoption of more carbon negative fuels like renewable natural gas made from organic waste.

2. Fuel pathway application processing delays

At the *July 7 LCFS Workshop*, the topic of fuel pathway application processing delays was discussed. We appreciate the hard work of CARB staff and third-party auditors to implement a complex program, provide certainty to the market and be a model for other state's implementing similar clean fuel standards. Reducing complexity and providing more market certainty to the pipeline of projects will be a key factor in achieving aggressive carbon reduction targets by 2030 and carbon neutrality by 2045.

The current delays have resulted in projects operating under temporary pathway approvals for more quarters than originally expected under the LCFS program timelines, which is having a negative impact on current projects and future pipeline projects. In our experience, certain applications were originally submitted over one year ago and will likely not be certified until Q4 2022, resulting in a 15-18 month application period.

Temporary Carbon Intensity (CI) scores are conservatively high by design but can result in low-carbon fuel facilities operating at a loss while the application is delayed before being deemed complete. When temporary pathways are extended multiple times, there is a negative impact on future projects.

[2] *July 7 LCFS Workshop* presentation, slide 12.
[3] *July 7 LCFS Workshop* presentation, slides 13-14.

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A few key changes could help alleviate the delays, reduce complexity, and provide more financial and operational certainty in the market.

a. Credit true ups for provisional pathways. This would provide credits to a producer based on the difference between a temporary CI and the approved provisional CI, back to the start of production. 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.

b. Empower third-party reviewers through outsourcing and increased training. Utilizing third-party firms to review pathway applications could save time for CARB staff and alleviate delays, especially if the application review and validation processes are combined. In addition, more training to help increase the number of professionals assisting with current application, through another round of verifier training and a plan for more frequent trainings, would benefit the program administration.

3. Focus on Lifecycle Emissions of Fuels and Technologies Deployed

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