CALGREN
Dairy Fuels, LLC

December 30, 2020

California Air Resources Board
Fuels Evaluation Section
Attn: Mr. Anil Prabhu
P.O. Box 2815
Sacramento, CA 95812

RE: Calgren Dairy Fuels, LLC Biogas Tier 2 Pathway Applications No. B0127 for California Motor Vehicle Fuel Produced by Digesting Manure at Local Dairies

Dear Mr. Prabhu:

Calgren Dairy Fuels, LLC (Calgren) submits this letter in response to public comments regarding the above-referenced Tier 2 pathway application submitted by Leadership Counsel for Justice and Accountability and Food & Water Watch. Submitters and signers are collectively referred to in this response as Commenters.

This response is pursuant to Section 95488.7(d)(5)(A) of the Low Carbon Fuel Standard (LCFS) regulations. As the comment letter is divided into three underlined sections, in this response each such section is summarized in *italics*, followed by Calgren's comments regarding all potential factual or methodological errors raised in that section in compliance with the cited regulation. As explained in more detail below, Calgren believes that no revisions to its pending application are needed.

1. *Allegation that environmental issues with dairy CAFOs are unaddressed.*

Commenters contend that CARB must assure that all dairies involved in this project that are CAFOs conform with all mandated environmental requirements. Calgren is proud to be working with the dairy farmers involved in this project, all of whom are well respected members of the local community. Calgren is dismayed that Commenters suggest our local farmers might not respect environmental issues. That is simply not true. In fact farmers are environmental heroes, as characterized in the Podship Earth blog dated April 15, 2018 and moderated by Jared Blumenfeld, California's Secretary of Environmental Protection. In addition, Calgren's contracts with each participating dairy require that the dairies comply with all applicable environmental requirements, whether or not the dairies are CAFOs.

Calgren adds that it is aware of USDA's efforts to encourage CAFOs to adopt environmentally sound practices. As stated on its website at https://www.nrcs.usda.gov/wps/portal/nrcs/main/national/plantsanimals/livestock/afo/, USDA's goal is to have CAFOs take voluntary actions to minimize air and water pollution from their facilities. This project does that in at least two ways. First, it greatly benefits air quality by reducing methane

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emissions. Methane is a short-lived climate pollutant 25 times as potent as carbon dioxide. California recognized the importance of projects that reduce such pollutants in passing SB 1383. This project responds to the imperatives set forth in that landmark legislation. Calgren captures methane that, but for the project, would have been released into the atmosphere. Calgren then cleans up that methane for use as a replacement for fossil fuels in California vehicles. Secondly, as for water pollution, this industrial project uses double-lined ponds, a significant upgrade from earlier agricultural manure management practices.

2. *Allegation that the project will incentivize the production of methane.*

With all due respect to the Commenters, assertions that this project will increase methane emissions are wrongheaded. Commenters miss the point that methane is currently emitted into the atmosphere by traditional, legal, regulated manure handling practices. Far from ignoring those emissions, Calgren captures them and turns them into vehicle fuel, thus simultaneously reducing the need for fossil fuels – essentially a double benefit. As environmental experts have recognized, decarbonizing vehicle fuels is no longer enough; to meet current environmental goals we must adopt carbon negative strategies as well. This project does that.

Commenters' contentions that the dairies associated with this project are increasing herd size and/or increasing manure production are incorrect. Herd counts are assessed as part of the Life Cycle Assessment process and manure production is based upon default baseline values embedded in the applicable protocol. The dairies are not opting out of solid separation equipment to increase manure production, rather they are typically installing such equipment to minimize the fiber load on the digesters. None of the participating dairies is allowed to accept food wastes, notwithstanding Commenters' contention. While it is true that the dairies all use wet manure management to some extent, that is standard practice, not a practice that was instituted or encouraged by this project. And while those alternative manure handling practices might avoid methane emissions from manure, to Calgren's knowledge none of those alternative practices would allow manure to be used as a source of renewable fuel, replacing fossil fuels. The benefits of dairy manure digesters are well recognized; hence they are enshrined in the landmark SB 1383 legislation previously referenced.

Commenters complain that some of the lagoons at some of the dairies have not been covered and that should be taken into account in calculating the carbon score. We agree. Indeed, the livestock protocol applicable to this project does take that into account. The protocol adopted by ARB takes into account emissions from digestate storage ponds and the like in arriving at its baseline emission values.

3. *Allegation that the project will not reduce methane emissions.*

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The crux of Commenters argument in this section is that incentivizing natural gas vehicles will delay the transition to electric vehicles. As set forth in a recent blog by Sammy Roth, a noted LA Times environmental reporter (see https://www.latimes.com/environment/newsletter/2020-06-25/will-the-rich-continue-to-be-the-main-beneficiaries-of-californias-clean-energy-future-boiling-point), electric vehicles primarily help rich communities like Beverly Hills. This project, on the other hand, primarily benefits Central Valley residents. Calgren strongly believes that air emissions in the Central Valley should be addressed as soon as possible and not be held captive to the preferences of others. Where preferred technologies are unavailable, as they are largely unavailable here, it would be unjust to ask Central Valley residents to delay their quest for cleaner air.

As the Commenters may or may not know, air quality in the Central Valley, where the project is located, is unacceptable. The biggest source of vehicle emissions in the Central Valley freight corridor is heavy duty trucks. No commercially viable electric vehicle alternative for that truck traffic is currently available. A Dairy Digester Emissions Matrix was recently developed by a diverse group of stakeholders including representatives from Central Valley Air Quality Coalition, Central California Asthma Collaborative, and the American Lung Association, as well as other stakeholders. The most comprehensive current analysis developed by this group is the Dairy Digester Emissions Matrix (Matrix), a copy of which can be found at Dairy Digester Emissions Matrix (November 30, 2018) (ca.gov). As reflected in the Matrix, using biomethane instead of petroleum to make vehicle fuel yields substantial net environmental benefits in NOx and PM air emissions – precisely the elements that plague Central Valley air quality.

As to the question of methane emissions from the pipelining of methane, the applicable Tier 1 Calculator assumes a 2% default value for fugitive emissions from upgrading as well as adding a separate factor of between 1% and 2% for pipeline emissions. Where fugitive emissions exceed 2%, the higher value is adopted. The pipeline transmission leakage factor was originally developed by Argonne National Labs and is updated on a regular basis. They also analyze emissions from CNG stations. The protocol used here includes all such emission factors. Both fugitive emissions and pipeline emission calculations have been fully reviewed by ARB staff; reviewed by an independent third party validator during the application process; and will subsequently be reviewed yet again by yet a different independent third party verifier.

Contrary to assertions of the Commenters, the biomethane produced by this project is not adding to the pipelining of methane or increasing the use of CNG. Rather it is providing a renewable substitute for the fossil fuels currently in use. Thus overall transport of methane will remain roughly the same as a result of this project, not increase, and the use of fossil fuels will be reduced.

Importantly, as noted above, this project immediately enhances cleaner air in a community with pressing environmental needs. Far from delaying the transition to a zero emission energy system, this

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project potentially speeds that transition. Commenters contend that this project forces us to accept natural gas vehicles for the indefinite future. It does not. While switching to CNG can provide immediate provide environmental benefits, this project does not lock us in to that use. When alternative vehicle technologies advance to a commercially viable scale, the biomethane produced by this project can be alternatively used to make negative emission hydrogen and/or negative emission electricity.

Finally, as previously noted above, Commenters choose to ignore the fact that but for this project methane would be emitted into the atmosphere and fossil fuel consumption in California would be greater. As recognized by California's legislators in SB 1383, dairy cows emit methane, both from manure and as a result of enteric processes. Given the scope of the problem, digestion of manure was selected as a preferred approach and thus encouraged. As Commenters note, alternatives exist. Perhaps some of those alternatives should similarly be encouraged. However, that fact alone does not detract from the enormous environmental benefits that this project brings.

In summary, while thanking Commenters for their interest in its project, Calgren contends that no changes to the pending application are needed.

Very truly yours,

Lyle Schlyer
President

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