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June 27, 2018

Sam Wade
Low Carbon Fuel Standard
California Air Resources Board
1001 I Street
Sacramento, CA 95814

Re: Comments on “Proposed Amendments to the Low Carbon Fuel Standard Regulation and to the Regulation on Commercialization of Alternative Diesel Fuels”

Calgren Renewable Fuels appreciates the opportunity to comment on the proposed changes to the Low Carbon Fuel Standard regulations.

We would like to make the following recommendations and comments:

1. Modifications to Section 95483. Fuel Reporting Entities (1).

Calgren Renewable Fuels would like to support the proposed extension of the transfer period for credit or deficit generator status. Our recommendation is to extend the period to four quarters. It is our belief the extension will provide additional support to obligated parties to accurately generate and transfer credit, especially credits generated by a dairy digester cluster. Dairy digesters are often operated at ambient temperatures, thus causing their output to be almost twice as great in the summer heat as opposed to the winter cold. Storage of biomethane may be required in order address this seasonality. Allowing four quarters of flexibility would match up well with the inherent seasonal swings and allow for this contemplated storage.

2. Addition of Section 95486.2. Generating and Calculating Credits for ZEV Fueling Infrastructure Pathways.

Calgren questions the wisdom of this proposed amendment. Allowing one or two types of renewable vehicle refueling facilities to generate credits based upon capacity while other types must report based upon carbon avoided creates a dangerous hierarchy; with all due credit to the Governor’s office, they are attempting to pick winners and losers rather than letting science take its course. This goes directly against the ARB 2030 Climate Change Scoping Plan. The Scoping Plan calls for a “balanced mix of strategies” to provide California with “the greatest level of certainty in meeting the [climate] target at a low cost while also improving public health, investing in disadvantaged and low-income communities, protecting consumers, and supporting economic growth, jobs and energy

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diversity.” The proposed amendment effectively has narrowed the range of acceptable fuel technologies. This change risks sending the message that the State will ignore CI reduction if it results from “disfavored biofuels”. Yet many such “disfavored biofuels,” such as ethanol and biodiesel produced in needy parts of the state, such as the Central Valley, support a clean energy economy. This provides more opportunities for all Californians, provides a more equitable future with good jobs and less pollution for all communities, and improves the health of all Californians by reducing air and water pollution. The Scoping Plan also calls to increase production of renewable gas to support the reduction of Short-Lived Climate Pollutants. With the state turning to an electric- and hydrogen-only policy, many of the benefits for renewable natural gas as vehicle fuel will be lost.

We would like to warn ARB on the effect on the Low Carbon Fuel Standard program with the adoption of this change. The programs continued validity is in jeopardy with a policy that clearly shows that the ARB is no longer fuel neutral.

3. Modifications to Section 95487. Credit Transactions.

We appreciate ARB adding language to clarify in additional text in section 95487(a)(2)(B) does not prohibit the contracting for future delivery of LCFS credits. The ability to trade future credits will provide market stability to credit trading.

4. Modifications to Section 95488.9. Special Circumstances for Fuel Pathway Applications.

a. We support the change in section 95488.9(b) to improve the temporary CI value of dairy biomethane to -150 gCO₂e/MJ. Recognizing the outstanding CI reduction in dairy biomethane will help support this new industry in the state. However, a similar temporary CI value must be applied to other renewable fuels, as set forth in the comments below, not just to CNG/LNG.

b. Biogas or biomethane can be used create a variety of biofuels. Calgren Renewable Fuels plans to use biomethane from a dairy digester cluster to produce ethanol and biodiesel. The new proposed definition of biomethane 95481(a)(19) states “Biomethane” is a biogas...”which has been upgraded for use in natural gas vehicles.” The definition could be interpreted to state that biomethane can only be used to create CNG or LNG. It is our understanding that these fuels should be allowed to claim avoided methane benefits for any and all biofuel production. Various uses for biomethane will be used by Calgren as input to make low carbon fuels.



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5. Addition of 958488.3. Calculation of Fuel Pathway Carbon Intensities.

We applaud the work by ARB is the creation of the Tier 1 Simplified Calculators. As mention is preceding comments, we would like the ability to claim avoided dairy emissions for more than use in CNG and LNG. It is our thought that all of the simplified calculators include an “Avoided Emission” tab using the same manure methane emissions calculation as exist in the 95488.3 (b)(7) “Tier 1 Simplified CI Calculator for Biomethane from Anaerobic Digestion of Dairy and Swine Manure”.

6. As implied by our foregoing comments, we are eager to find an acceptable way to avoid being penalized for being the first dairy cluster project in California. Because of inherent delays in arranging for gas pipeline injection, the first 6-8 dairy digesters in the first dairy digester cluster in California are not likely to produce CNG/LNG vehicle fuel. Rather, they will initially supply their biogas/biomethane as an input to make low carbon ethanol and/or biodiesel at the Calgren Renewable Fuels facility near Pixley, and only later transition to CNG fueling. There are no other dairy digesters clusters anywhere in the state likely to produce CNG fuel in the next 12 month. Thus it is important to recognize that while converting dairy digester gas to CNG is a long-term goal, the near-term use of dairy digester gas in ethanol production and biodiesel production is an important first step.

a. One way to do this might be to rename the calculator listed in 95488.3(b) (7) to be “Simplified CI Calculator for Biomethane Compressed Natural Gas/Liquid Natural Gas from Anaerobic Digestion of Dairy and Swine Manure, since various other uses of biomethane can and will be employed. Any alternative that works is acceptable.

b. Through our affiliate, Calgren Dairy Fuels, we have signed up fifteen dairies and are in advanced discussions with others. While the actual number of digesters built may be less (one dairy was sold and two other dairies will share a digester), the point is that new digesters will be serially added over an extended period of time. Likewise, CNG refueling stations will be added serially, with at least one new station contemplated to be built next door to our biogas upgrade facility. We appreciate that ARB will need at least ninety days of data for each of the new digesters. Finding an acceptable way to avoid losing the carbon credits during those data collection periods is important. We believe that preserving the maximum amount of regulator flexibility will be vitally important.

c. In addition to granting new dairy digesters a conservative temporary CI value of -150, we think ARB should be careful to preserve the concept that verification will only occur over twenty-four month periods and only compare claimed carbon savings to actual



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carbon savings. As noted earlier, dairy clusters typically involve ambient digesters that are subject to substantial seasonal swings. This is often a detriment. However, with appropriate regulatory flexibility and verification over two whole seasons, dairy clusters may someday benefit by "smoothing out" high production periods and low production periods.

Sincerely,

A handwritten signature in black ink that reads "Tim Morillo". The script is fluid and cursive.

Tim Morillo
Plant Manager