



April 23, 2018

California Air Resources Board  
1001 I Street  
Sacramento, CA 95814

Dear Members of the Air Resources Board,

We write on behalf of Equilibrium Capital's Wastewater Opportunity Fund to express our support for the LCFS program and provide specific comments on the proposal presented by your staff. As a direct result of the LCFS, California is leading the world in the effort to establish commercially-viable fuel options that will contribute to lower greenhouse gas (GHG) emissions from transportation. We encourage you to continue the LCFS and strengthen the program in ways that will accelerate investments in this sector for years to come.

Equilibrium Capital ("Equilibrium") is a global asset management platform of sustainability-driven investment strategies and products for institutional investors. Founded in 2007, Equilibrium currently has over \$1.7 billion of committed assets under management across multiple sectors including: agriculture and food, real estate, and renewable resources.

As part of the renewable resources strategy, Equilibrium launched the Wastewater Opportunity Fund to provide capital to develop, upgrade and finance new and existing facilities that process a variety of organic waste streams. At \$184 million, the Wastewater Opportunity Fund is the largest capital provider focused on the U.S. wastewater and organic waste sectors. As a part of this focus, the Wastewater Opportunity Fund has multiple anaerobic digestion projects currently in development or under construction, including multiple California projects. Investments in dairy digesters producing renewable natural gas for pipeline injection are a core focus for our fund, and we intend to provide equity capital to several additional facilities in the next two years. Our facilities currently under construction are projected to generate over 250,000 LCFS credits in 2019.

Equilibrium is a certified benefit corporation and has made a commitment to the environment and community, including the host communities for our investments. Equilibrium has offices in Portland, Oregon; San Francisco, California; and London, England.

For your consideration, we offer the specific comments below about the program proposal. These comments are offered in the spirit of making the LCFS more robust, and a program worthy of replication in additional jurisdictions.

### **Dairy Digester Biomethane**

Dairy digesters offer the potential for CI values as low as -250g CO<sub>2</sub>/MJ, and can allow cost effective GHG reductions through existing CNG and refinery infrastructure. A number of proposed changes, together, are particularly detrimental to investors like Equilibrium Capital seeking to develop dairy digester projects. The proposed changes of concern include:

- A temporary pathway CI of 0 g CO<sub>2</sub>/MJ for dairy and food/green waste to biomethane, whereas dairy-derived biomethane is known to have a much better CI (typically -250g CO<sub>2</sub>/MJ, because of its unique methane emissions mitigation.)

- No retroactive credit generation based upon the CI submitted in a qualifying pathway application; rather, the CI of the temporary pathway (which is artificially and unfavorably high for dairy-derived biomethane) must be used until the provisional CI is approved by CARB.
- Two-quarter limit on book-and-claim accounting (storage) of the biomethane, which will not allow sufficient time for the approval of a provisional CI before RNG must be withdrawn and used for LCFS credit generation.

The net result of these three provisions is that new dairy digester RNG projects will, during the critical initial period, be unable to generate LCFS credits representative of their GHG savings.

Consider the following timeline:

- Initial data collection upon start of RNG injection: 3-4 months
- Data analysis and preparation of fuel pathway report: 0.5 -1 month
- Third party validation of fuel pathway report: 0.5 - 1 month
- CARB processing and approval of provisional CI: 2-3 months
- Dispensing the additional “surge” of RNG into CNG vehicles: ~ 6 months

Timeline from first injection until provisional LCFS pathway application approval is 6-9 months, and the clearing of the “surge” into the market will typically take another 6 months. The proposed rules only allow utilization of the -250g CO<sub>2</sub>/MJ) after LCFS pathway application approval, however RNG injected in one quarter MUST be used for LCFS credit generation no later than the end of the following quarter (thus the period can be as short as 4 months). These constraints force utilization of the temporary pathway of 0 g CO<sub>2</sub>/MJ, and severely impair the initial cash flow from projects that have legitimate CI's in the ~ -250g CO<sub>2</sub>/MJ range.

One solution would be for CARB to adopt a separate dairy digester RNG specific temporary pathway value. This CI value should be lower than 0 g CO<sub>2</sub>/MJ, perhaps in the -200 g CO<sub>2</sub>/MJ range. To avoid inappropriate use of this pathway, we would support reasonable requirements for the utilization of this temporary pathway. Examples could be:

- Farm-derived manure as the sole feedstock of the digester
- Limits on power and gas utilization per unit of RNG product

Another solution could be to modify the language in Section 95488.8(i)(2). Book-and-Claim Accounting for Pipeline Injected Biomethane Used as a Vehicle Fuel or to Produce Hydrogen . The following additional language would provide an acceptable means for us to recover LCFS value from a project's initial production:

- For the purposes of book-and claim accounting of RNG produced from new projects that have not yet received a CARB-approved provisional or certified CI, for any RNG that is injected into the pipeline prior to such approval, the quantity claimed for LCFS reporting must be matched to natural gas sold in California as RNG no later than the end of the two following calendar quarters after the date of CARB approval of such CI. After that period is over, any unmatched RNG quantities from initial storage expire for the purpose of LCFS reporting.

Thank you for considering our comments. We commend the Board for your collective leadership and guidance on this landmark regulation.

Sincerely,



Mary Macpherson  
Vice President