May 31, 2023

VIA ELECTRONIC FILING

Cheryl Laskowski California Air Resources Board 1001 I Street Sacramento, California 95814

Re: Draft Tier 1 Carbon Intensity Calculator for Biomethane from Anaerobic Digestion of Organic Waste

Dear Dr. Laskowski:

The Coalition for Renewable Natural Gas (RNG Coalition) is a California-based nonprofit organization representing and providing public policy advocacy and education for the Renewable Natural Gas (RNG) industry.¹ RNG Coalition respectfully submits these comments to the California Air Resources Board (CARB) in response to the Draft Tier 1 Carbon Intensity (CI) Calculator (Calculator) for Biomethane from Anaerobic Digestion of Organic Waste and associated Instruction Manual (Instructions).

We strongly support CARB staff's choice to release improved Tier 1 calculators for this rulemaking. The majority of RNG pathways should be Tier 1 to reduce complexity and improve pathway processing timelines. We are committed to working with CARB to help achieve these goals.

Proper Recognition of the Avoided Landfill Methane Benefits of Organic Waste Diversion is Critical

Both CARB and US EPA have mandatory emission control requirements for landfills that help reduce methane emissions, yet research literature suggests that many landfills still contribute methane emissions at rates that are much higher than previously estimated. A 2019 study by the NASA JPL estimates that landfills' contribution to the state's methane emissions is double current estimates – approximately 41% of all methane point source emissions in California.² RNG Coalition and a wide swath of other stakeholders have been raising these issues with CARB for more than two years.³ LCFS can help address methane from organic waste handling if the benefits of RNG projects that divert organics from landfills and into dedicated anaerobic digesters (AD) are properly recognized in CI scores.

Better quantification of the methane benefits of avoided landfilling and incenting such reductions in the LCFS should be a key focus for CARB. Proper recognition of the true methane reduction benefits of such



¹ For more information see: <u>http://www.rngcoalition.com/</u>

² Duren, R.M., Thorpe, A.K., Foster, K.T. et al. *California's Methane Super-Emitters*. Nature 575, 180–184 (2019). https://doi.org/10.1038/s41586-019-1720-3

³ We initially raised this issue in our LCFS Workshop comment letter dated November 5, 2020. One of our members, Anaergia, has also filed eight separate comment letters on this topic over the last two years. We encourage CARB staff to review those letters prior to making key decisions on this topic in the rulemaking.

projects must occur quickly, as we remain well behind our organic waste diversion goals. The Little Hoover Commission at its May 2023 meeting adopted a draft report on SB 1383 issues, which finds that:

Sadly, California is falling short of its goals. Despite the importance of diverting organic waste, the state not only missed its 2020 target, but sent a million tons of organic waste above the 2014 baseline to landfills. The Little Hoover Commission's review of the bill's implementation found that the state is poised to miss its 2025 target.

Further, the largest anaerobic digestion facility processing diverted organic waste in California—the Rialto Bioenergy Facility—recently entered bankruptcy proceedings.⁴ Given this grim backdrop, we strongly recommend CARB carefully address the issues below.

Allowing Landfill-Specific Gas Collection Efficiency is Helpful Flexibility, but Implementation Details Must be Simpler to be Workable

We thank CARB for the new flexibility included in the Draft Calculator allowing site-specific Gas Collection Efficiency (GCE) at the landfill(s) from which the feedstock was diverted to be used. However, the details of determining such landfill-specific values are unworkable as drafted, as they require significant analysis steps by the pathway applicant that are not feasible.

Per CARB's Draft Instructions released with the Calculator, when proposing a site-specific GCE, the quantity of methane generated must be calculated using information about the gas collected by the landfill and the quantity of fugitive methane emissions measured over the landfill surface for a period of no less than one year. The owners and operators of AD facilities simply have no way of knowing the quantity of gas collected or the amount of fugitive methane emissions measured from a landfill that they do not control.

Applicants seeking to use a site-specific GCE must also demonstrate from which landfill(s) the feedstock was diverted using historic bills of lading or waste collection routes. Again, this information is unlikely to be available to the AD facilities.

Further, CARB's instructions state that approved landfill-specific gas collection efficiency values will not be confidential and can be utilized by any LCFS pathway holder that can demonstrate diversion from the same landfill. CARB will likely publish all approved landfill-specific collection efficiency values. This means that even if an AD facility was able to work out a commercial arrangement with a landfill to measure site-specific GCE it would not produce any commercial advantage for the AD facility, as all competitors would have access to the same information once CARB released it.

Given that there is no first-mover advantage of developing such landfill-specific GCEs and the commercial challenges of gathering this information as an AD facility, we recommend that CARB instead directly develop and publish best estimates of individual landfill GCE and let applicants use these values, as they become available, in place of the statewide default value.

⁴ <u>https://investors.anaergia.com/media-center/news/news-details/2023/Anaergia-Announces-Commencement-of-</u> <u>Restructuring-Proceedings-by-Rialto-Bioenergy-Facility-LLC/default.aspx</u>

The Calculator Should Include Default Co-Product Credits for the Benefits of Displaced Fertilizer

The development of AD facilities to process diverted organics increases opportunities to displace the use of emission-intensive conventional fertilizer with digestate-derived fertilizer products. We recommend that the Draft Calculator be updated to recognize the nitrogen, phosphorus, and potassium (NPK) benefits of the digestate material.

Co-product credits for digestate/compost has previously been granted by CARB based on the amount of conventional fertilizer displaced.⁵ We recommend CARB reestablish this important co-product credit in the Tier 1 Calculator.

The Draft Calculator Errs in Increasing Complexity in Some Areas

Overall, we caution CARB against areas of added complexity that are not aligned with the intent of a simplified tool. For example, the Draft Calculator requires moisture measuring of feedstock, but the supporting documents do not describe, in sufficient detail, what measurement methods would be required. The requirement for moisture measuring also complicates how residuals should be accounted for, instead of allowing a simple calculation of net feedstock processed. Such complexity diminishes the value of a Tier 1 application and—as is current practice today—may motivate many applicants to select a Tier 2 calculation.

A Credit True-up Remains Necessary to Properly Recognize the True Environmental Performance of All Biomethane Pathways

True-up crediting should be offered to improve clean fuel economics and help the program correctly account for the full GHG benefits of RNG production. AD facilities are biological systems in which yields and CI can be unexpectedly impacted by issues outside of the control of the facility operator. Looking backward at actual CI performance is much easier than forecasting possible future CI performance for these systems. We continue to support a full true up to verified actual CI performance to recognize the actual GHG benefits of these facilities.⁶

All Biomethane Pathways Should Include the Option to Model Power Generation Matched with Electric Vehicle Use as a Finished Fuel

We continue to recommend that all Tier 1 calculators allow electricity generation as a finished fuel to facilitate matching with electric vehicle (EV) use. Alternatively, CARB could develop a Tier 1 calculator that takes a RNG pathway as an input and converts it to electricity for use in EVs. This would create a strong analog with the approach taken for hydrogen in the Draft Hydrogen Simplified Tier 1 Calculator.

Conclusion

RNG Coalition appreciates the opportunity for continued engagement on these topics. Providing strong and streamlined CI calculators improves the investment certainty for RNG projects. If CARB provides clarity through Tier 1 calculators that work well for RNG applications, the production of renewable gas

⁵ <u>https://ww2.arb.ca.gov/sites/default/files/classic/fuels/lcfs/fuelpathways/comments/tier2/t2n-</u>

¹²⁴⁸ summary.pdf

⁶ See our comment letters from prior workshops dated January 7, 2022, August 8, 2022, and September 18, 2022.

will help to reduce methane emissions, improve organic waste management, and decarbonize California's transportation sector—or any other sector that CARB deems appropriate.

These simplified Tier 1 calculators also provide critical leadership that will allow other jurisdictions to follow California's example and adopt LCFS-style programs. We thank CARB staff for your continued hard work on these topics and look forward to a robust and effective LCFS rulemaking.

Sincerely,

/S/

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