



September 19, 2022

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

RE: American Biogas Council Comments Regarding Potential Changes to the Low Carbon Fuel Standard

Dear Chair Randolph,

Thank you for the opportunity to submit comments regarding the August 18, 2022, *Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard (LCFS)*. The American Biogas Council is the only national trade association representing the entire biogas industry in the U.S. We represent over 300 companies in all parts of the biogas supply chain who are dedicated to maximizing the production and use of biogas from organic waste. Biogas systems protect our air, water and soil by recycling organic material, like food waste and manure, into renewable energy and soil products.

Biogas systems are at their heart a biological means to capture methane for use as a renewable fuel. This process specifically decreases baseline methane emissions into the atmosphere by converting the methane back into carbon dioxide. All of this is an effort to protect our air, water, and soil – crucial parts of the solution to the challenges CARB seeks to address.

It is therefore critical for CARB to continue incentivizing the development of anaerobic digesters to capture methane emissions and convert organic material into biogas and digestate. Not only is anaerobic digestion an important tool in achieving California's environmental goals and priorities - it also continues to be a critical component of the state's Low Carbon Fuel Standard (LCFS), and as recent data from CARB have shown, one of the top tools CARB has to reduce these emissions.

As we lead into our comments stemming from the August 18th Workshop, we believe it is very important to emphasize that **CARB's GHG reduction targets must be made more stringent**. In CARB's July Workshop, CARB staff asked for stakeholder input on whether carbon intensity reductions in the period 2024 (or later effective date of the amendment) – 2030 should be made more stringent than the 20% reduction currently called for by 2030. We note again today that LCFS credit values have fallen by approximately 50% in the last year, with little prospect for credit prices to increase again until the amendment goes into effect. The reason this has happened is because the LCFS is working—emissions are lowering, and gasoline/diesel gallons used are decreasing. **It's time to double down and make the carbon reduction targets more stringent.**

The market has told all of us that the current target CI reductions in the LCFS regulation are not stringent enough. Thus, the purpose of the LCFS is imperilled, especially at a time when other states have either passed, or are likely to pass, their own versions of the LCFS. Therefore, we support the scenario presented by CARB staff in the workshop of a 30% reduction by 2030. In light of the Governor's Letter calling for an urgent move away from fossil fuels and considering the demonstrated ability of the clean fuels industry to innovate to drive down CI and ramp up low carbon fuel production, a 30% reduction by 2030 is the minimum reduction CARB should incorporate into the amendment.

In addition, we respectfully offer the following comments in response to the August 18th Workshop.

1. ABC supports Tier 1 calculation for hydrogen.

As hydrogen fuel pathways become more prevalent, ABC supports the development of a Tier 1 hydrogen calculator, which will expedite the verification of application materials, permit rapid integration of low CI sources of hydrogen, and integrate book and claim practices for hydrogen. We also agree with the recommendation to unify Tier 1 and Tier 2 "Deemed Complete" protocols. The consistency of process for applicants will make an often complex process more clear and easier to navigate as applications increase.

2. ABC recommends a workshop to incorporate sustainable, "Climate-Smart" agricultural practices.

In Governor Newsome's July 22 letter to CARB, he stated that California "must look for greater opportunities to reduce our dependence on fossil fuels to achieve our air quality and climate targets, including in our ... transportation sector." One way to accomplish this is to incentivize the adoption of agricultural practices that reduce

the carbon intensity of alternative transportation fuels, such as renewable natural gas, used in the state. We recommend that CARB holds a workshop this year that focuses on climate-smart agricultural practices.

A by-product of the anaerobic digestion of dairy and livestock manure is digestate, which can be utilized by farmers to improve soil vitality and create greater crop yields while displacing synthetic and fossil-fuel derived chemical fertilizers. The use of digestate not only reduces GHG emissions by eliminating the need for synthetic, imported fertilizers, but it also has the benefit of reducing fertilizer costs during a time that producers are experiencing skyrocketing costs and supply chain disruptions brought about by the Russian invasion of Ukraine, a problem that will continue for the foreseeable future. In addition, the United States Department of Agriculture's (USDA) Partnerships for Climate-Smart Commodities grant program will expand existing commodity supply chains to produce renewable natural gas and carbon credits through smarter utilization of resources, thus improving the sustainability and resilience of farming and ranching operations. This program has the potential, along with the LCFS program, to substantially change the way farmers and ranchers produce the nation's crops through the use of by-products of anaerobic digesters.

History has shown that CARB's policies have driven the evolution of environmental reform in other states. By acting early and establishing guidelines for Climate-Smart Agricultural practices, CARB will set the standard which other states will look to for guidance. We cannot afford inaction on the issue of creating a standard by which other states can follow. In fact, several stakeholders advocated for a dedicated sustainable agriculture workshop during CARB's August workshop, which received broad support. A climate-smart agriculture workshop would be an extremely useful addition to CARB's calendar.

3. ABC supports a "True-Up" for temporary fuel pathways, including an expansion of eligibility.

We agree with the recommendation that CARB adopt further measures to allow fuel producers to report sales and generate credits during their business's start-up, while both Tier 1 and Tier 2 applications are under review for certification, or if new feedstocks or finished fuels are added to an existing production process. Allowing reporting entities to generate credits based on actual operational CIs after certification of Tier 1 or Tier 2 pathways is the responsible way to ensure that project revenue is not unfairly withheld simply due to the need to establish the CI score. This will go a long way toward alleviating concerns with delays in certification. In addition, by incorporating more means by which businesses can "True-Up" CARB will encourage producers to become certified entities sooner rather than later, while further alleviating concerns with delays in certification.

4. Beef and poultry manure needs to be included. ABC recommends amending the LCFS regulation and dairy and swine carbon intensity calculator (along with the Livestock Offset Protocol in the C&T program) to expand the types of livestock manure that can generate avoided emissions credits to include beef cattle and poultry manure.

California's SB 1383 law and the facts and data presented in CARB's March 31, 2022, workshop on dairy manure renewable natural gas (RNG) make it clear that reducing methane emissions from dairies and livestock facilities is critical to California achieving its climate goals. We continue to strongly support the ability of dairy and swine manure RNG to generate avoided emissions credits (AECs) under the LCFS. To further assist California to meet its climate goals, we recommend CARB amend the LCFS regulation and dairy and swine carbon intensity calculator to expand the types of livestock manure that can generate avoided emissions credits under the LCFS to include beef cattle and chicken manure.

In addition, we recommend updating the Livestock Offset Protocol in the C&T program, which was last amended in 2014. The LOP is based on values set forth in Chapter 10 of the Intergovernmental Panel on Climate Change's 2006 Guidelines for National Greenhouse Gas Inventories entitled "EMISSIONS FROM LIVESTOCK AND MANURE MANAGEMENT". In addition to dairy cattle and swine, Chapter 10 also incorporates values for beef cattle and poultry manure. If CARB wants to incentivize the reduction of methane emissions from livestock, it should expand the categories of livestock manure that can generate avoided emissions credits.

Our members continue to focus their research efforts on capturing emissions from organic waste, be it through improving anaerobic digestion technologies or exciting research that the ABC Science & Research Subcommittee is doing to review environmental factors for deep-pit manure management systems.

5. ABC supports carbon capture and sequestration.

ABC fully supports accelerating the reduction of Carbon Intensity targets to or beyond the proposed 30% by 2030. We further support the idea of providing "checkpoint" targets between the final deadline goals to help facilitate the transition and stabilize the market of LCFS credits. We note that carbon dioxide is one of the two main by-products of the anaerobic digestion of organic waste, and some of our members are actively exploring carbon capture and sequestration (CCS) as a means of reducing CO₂ emissions. While CARB created an LCFS CCS protocol as part of the last LCFS amendment, it is our understanding that no LCFS CCS pathway has been certified to date.

Therefore, we urge CARB to employ additional staff resources to enable CARB to meet Governor Newsom's goals with respect to CCS. Our team has subcommittees currently collecting data points that we believe would be relevant in updating emissions factors that we would be glad to share with CARB.

6. ABC supports using drone technology to “drastically reduce methane.”

In the section of the Governor's Letter entitled “Drastically Reducing Methane,” he notes that “short-lived climate pollutants, such as methane, can also have an outsized impact on climate change in the near term given their potent warming power.” He called for “the input of community members, air districts and local government entities to take action to address” [methane] leaks from oil infrastructure. His position is buttressed by California law through SB 1383 and SB 1440. In the Letter, he asked for the establishment of a Task Force to identify and address methane leaks from oil infrastructure. We support his request but believe that the duties of such a Task Force should be expanded to address methane leaks from landfills.

While the Governor refers to methane detection satellites as the means of addressing methane leaks from oil infrastructure, there is also drone technology developed by NASA to measure landfill methane leaks. We advocate for the inclusion of such drones in the \$100 million appropriated in the state budget along with the methane detection satellites. This technology exists and will enable CARB to utilize actual fugitive emissions data in the Tier 1 Calculator for methane produced from landfill gas, instead of utilizing assumptions developed before the drone technology was available.

We therefore request that CARB revise the Tier 1 calculator for RNG derived from landfills to incorporate actual fugitive emissions data from landfills, which we understand it can do outside of a full rulemaking. Doing so will incentivize stakeholders to develop and operationalize landfill gas RNG projects, helping the state to meet its methane reduction goals. Without this change operators do not have the proper incentives to produce RNG to sell into the LCFS market.

In closing, the ABC continues to be extremely supportive of CARB's priorities in the amendment of California's Low Carbon Fuel Standard and believes that CARB can continue to lead the way by creating well-reasoned policies that will stabilize and broaden the market, as well as incentivize innovative technologies and crop production practices moving forward. If the ABC can be helpful to CARB in any manner, please let us know.

Sincerely,



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