



February 20, 2024

The Honorable Steven S. Cliff  
Executive Officer  
California Air Resources Board  
Sacramento, CA 95814

**Re: Proposed Amendments to the Low Carbon Fuel Standard Regulation**

Dear Executive Officer Cliff:

I am writing on behalf of the Bioenergy Association of California (BAC) to comment on the 45-day language to amend the Low Carbon Fuel Standard regulations, which was released in early January. BAC strongly supports the increased stringency of the proposed regulation, but is very concerned about the continued use of Book and Claim for undelivered biomethane and the phase-out of avoided methane credits. Failing to require delivery of biomethane means that California will continue to use fossil gas on the road and it will hurt instate projects that are converting organic waste to energy to meet the state's Short-Lived Climate Pollutant reduction, landfill diversion, wildfire reduction, and other important state policies. Phasing out credit for avoided methane emissions, even when they are not required by law, will also undermine efforts to meet the SLCP reduction requirements of SB 1383. BAC urges the Air Board, therefore, to revise the amendments to require biomethane delivery consistent with RPS and SB 1440, and to only phase out avoided methane emissions to the extent that they are required by law.

BAC represents more than 100 public agencies, private companies, and non-profit organizations working to convert organic waste to energy. BAC's public sector members include cities and counties, Tribes, local air districts, environmental and solid waste agencies, wastewater treatment facilities, public research institutions, community and environmental groups, and a publicly owned utility. BAC's private sector members include bioenergy project developers, technology providers, investors, an investor owned utility, waste haulers, food processing and agricultural companies, and more.

BAC members are currently producing the lowest carbon fuels in the LCFS program, including biomethane, electricity and hydrogen generated from dairy manure, diverted organic waste, landfill and wastewater biogas. Other BAC members are developing projects to convert forest and agricultural waste to low carbon and carbon negative fuels.

BAC's comments focus on the 45-day language regarding Book and Claim for undelivered biomethane and the phaseout of avoided methane emissions even where they are not required by law or higher emitting alternatives are allowed.

**A. BOOK AND CLAIM SHOULD BE PHASED OUT CONSISTENT WITH THE RPS AND SB 1440.**

BAC urges the Air Board to go back to the staff recommendations in 2022 and 2023 that would have phased out undelivered biomethane consistent with the RPS and SB 1440. This is critical for several reasons, described below. At the same time, BAC urges the Air Board to allow Book and Claim for biomethane used to produce low-CI electricity, provided both the biomethane and the electricity are produced and delivered consistent with the RPS and SB 1440.

**1. Undelivered Biomethane Does Not Help California Reduce SLCP Emissions.**

SB 1383 requires significant reductions in methane and black carbon emissions by 2030, and diversion of 75 percent of organic landfill waste by 2025. Biomethane generated in other states that is never delivered to California does not help to meet these critical climate and public health goals. This is why the Legislature, in SB 1440 (Hueso, 2018) requires that eligible biomethane must help achieve the goals of SB 1383.<sup>1</sup> SB 1440 further requires that the capture or production of eligible biomethane must directly result in at least one of the following environmental benefits to California: reduction of air pollutants or greenhouse gas emissions, reduction of water pollution, or reduction of odors in California.<sup>2</sup>

Only instate biomethane or biomethane that is actually delivered to California helps to meet the methane and black carbon reduction requirements of SB 1383 or to provide benefits to California's environment, as outlined in SB 1440.

The Air Board should phase out undelivered biomethane, as the 2023 staff proposals lay out, to help meet the requirements of SB 1383, reduce open burning and mitigate wildfire. Only instate or delivered biomethane provides these critical benefits.

**2. Undelivered Biomethane Means that California Vehicles Will Continue to Use Fossil Gas.**

From its inception, the Low Carbon Fuel Standard has had two goals, reducing carbon emissions and reducing fossil fuel use in motor vehicles. Continuing to allow credit for undelivered biomethane means that natural gas vehicles on the road in California will in fact be using fossil fuel gas. This is not a desirable result since fossil fuel production, refining and transport have adverse impacts on the environment and public health. It

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<sup>1</sup> Public Utilities Code section 651(a)(1).

<sup>2</sup> Public Utilities Code section 651(a)(3)(B)(ii).

will also undermine support for the LCFS program since California drivers will continue to pay a premium for low carbon fuels that aren't even being delivered to California – in other words, Californians are being asked to buy something that they never in fact receive.

Phasing out the use of fossil fuels on the road in California requires that low carbon and renewable fuels actually be delivered and used to displace fossil fuels.

### **3. Allowing Undelivered Biomethane Puts Instate Projects at a Severe Disadvantage.**

Allowing undelivered biomethane to participate in the LCFS reduces demand for instate biomethane, since instate production is significantly more expensive than out-of-state and undelivered fuels. California has stronger environmental, public health, labor, permitting, and other requirements. As an example, interconnection costs in California can be 2 to 10 times higher than in other states. California also has the most stringent pipeline biomethane standards in the country and the Air Board has recently proposed making pipeline biomethane standards even more stringent. Out of state biomethane projects do not have to meet California's standards to protect public health and pipeline integrity, which puts instate projects at a competitive disadvantage.

Continuing to make instate projects compete with undelivered biomethane will only slow the state's efforts to reduce SLCP emissions, landfilling, and wildfire as it makes it harder for instate projects to compete, both economically and in terms of the time needed to develop projects.

### **4. The LCFS Should be Consistent with the Legislatively Mandated RPS and SB 1440 Programs.**

For all the reasons above, BAC urges the Air Board to go back to the staff proposals on the LCFS, which would have phased out undelivered biomethane consistent with the RPS and SB 1440. The 45-day language does not do this in any meaningful way. Projects built before 2030 will never be required to deliver their biomethane to California. And projects built after 2030 do not have to show delivery until 2040 or later and, even then, only have to inject the biomethane into a pipeline that flows in the general direction of California. This is not a clear standard and definitely does not ensure that the biomethane will help reduce SLCP emissions or provide other environmental benefits in California, as both SB 1440 and the RPS require.

### **5. The LCFS Regulation Should Allow Book and Claim for Biomethane that is Delivered for Use in California, Including for Low-CI Electricity, Consistent with the RPS.**

BAC supports the use of Book and Claim for biomethane that is both generated and used in California or the western United States, whether it is used offsite as biomethane, for low-CI electricity generation or for hydrogen production. BAC urges the

Air Board to clarify in the amendments to the LCFS regulation that book and claim for biomethane converted to low-CI electricity is allowed, provided that both the biomethane and low-CI electricity production are consistent with the RPS. This could be done by adding conversion of biomethane to low-CI electricity in Sections 95488.8(i)(2) and 95488.8(g)(1)(A)(2).

**B. CARB SHOULD NOT PHASE OUT CREDIT FOR AVOIDED METHANE EMISSIONS UNLESS THEY ARE REQUIRED BY LAW AND HIGHER EMITTING ALTERNATIVES ARE NOT ALLOWED.**

BAC also urges the Air Board to continue to give credit for avoided methane emissions that are not required by law. This includes avoided methane emissions from livestock manure, which is not currently regulated, as well as avoided emissions from diverted organic waste projects where bioenergy can provide far greater carbon reductions than alternative products procured pursuant to CalRecycle's SB 1383 regulations. BAC appreciates that lifecycle analyses should not include emissions reductions that are required by law, but in both of these cases, the specific reductions are not required by law and should be credited in a lifecycle analysis.

**1. Dairy and Other Livestock Waste**

SB 1383 requires a 40 percent reduction in methane by 2030, but it does not include requirements for dairy methane reductions. On the contrary, the law requires a number of findings before the state can regulate dairy methane emissions<sup>3</sup> and those findings are difficult to impossible to achieve, so the State cannot currently regulate dairy methane emissions unless it changes the law. Therefore, dairy biogas producers should receive full credit for avoided methane emissions from dairy manure that is used to produce biofuels participating in the LCFS program.

**2. Diverted Organic Waste**

Diverted organic waste is a more complex category since SB 1383 does require 75 percent of organic landfill waste to be diverted from landfill by 2025. At the same time, neither SB 1383 nor CalRecycle's regulations require that diverted organic waste be converted to bioenergy. CalRecycle's SB 1383 regulations explicitly allow alternatives to bioenergy that emit far more carbon. Those alternatives include compost production and mulch, which are less expensive to produce than bioenergy, but also have greater carbon emissions.

CalRecycle affirmed this recently when it determined that a diverted organic waste to hydrogen project will have lower emissions than if that same waste were converted to compost (the finding required under Article 2 of CalRecycle's SB 1383 regulations). The State of Oregon's Department of Environmental Quality has also conducted a literature of 148 separate studies and found that bioenergy plus composting the

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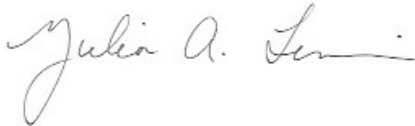
<sup>3</sup> Health and Safety Code section 39730.7(b)(4).

remainder (digestate) provide 3.5 times greater carbon reductions than compost alone.<sup>4</sup> More recent methane monitoring by NASA's Jet Propulsion Lab also found that compost production facilities emit substantial amounts of methane and yet this is an allowed alternative under CalRecycle's regulations.<sup>5</sup> None of this is to dismiss the value of compost, but where low carbon fuel can be generated instead, the difference in emissions should still be valued under the LCFS.

As long as CalRecycle's SB 1383 regulations allow higher emission alternatives to biofuels (biomethane, hydrogen or electricity generated from that waste), then the LCFS should continue to provide credit for the difference between bioenergy and other, higher emitting compliance products.

Thank you for your consideration of these comments.

Sincerely,

A handwritten signature in cursive script that reads "Julia A. Levin".

Julia A. Levin  
Executive Director

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<sup>4</sup> Morris, et al, *Evaluation of Climate, Energy, and Soils Benefits of Selected Food Discards Management*, Prepared for the State of Oregon Department of Environmental Quality, October 2014, Table ES-2 at page iii.

<sup>5</sup> See, <http://methane.jpl.nasa.gov/>