



February 20, 2024  
Cheryl Laskowski  
Low Carbon Fuels Standard Program  
California Air Resources Board  
1001 I Street Sacramento,  
California 95814

Re: Comments on Proposed Low Carbon Fuel Standard Amendments 2024

Dear Dr. Laskowski,

Thank you for the opportunity to offer our input regarding 2024 Proposed Low Carbon Fuel Standard (LCFS) Amendments. We appreciate the workshops and meetings and all the staff work that has culminated in these proposed amendments.

We urge you to change critical aspects of the Proposed LCFS Amended program that undermine California's climate goals and that directly harm historically disadvantaged, low income and frontline communities.

**We urge CARB to:**

- 1. End the flawed policy of giving credits for “avoided methane emissions” in 2024 and limit the LCFS carbon intensity scores to no less than zero.**
  - 2. Cap lipid-based biofuels since they lead to tropical deforestation and result in food insecurity as they compete with land for food production.**
  - 3. End the crediting of Carbon Capture and Storage projects that use captured carbon for enhanced oil recovery as this conflicts with statewide prohibitions in SB 1314 (Limón 2022) and SB 905 (Caballero 2022).**
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- 1. End the flawed policy of giving credits for “avoided methane emissions” in 2024 and limit the LCFS carbon intensity scores to no less than zero.**

Under the current LCFS regulations, producers of livestock biomethane are given a large negative carbon intensity score, since it is assumed that anaerobic digesters capture all the emitted methane. However, a recent study<sup>1</sup> by Food and Water Watch, as outlined in their report ‘The Proof is in the Plumbing’ (January 2024), reveals substantial methane leaks originating from these anaerobic digesters. The plumes of leaked methane are so large that, by [Carbon Mapper](#)’s definition, the digesters qualify as super-emitters. This is deeply troubling, underscoring the direct contradiction between the current flawed LCFS carbon intensity assignments and California’s Clean Energy and Air Quality objectives.

This policy distortion results in an inequitable and socially inefficient distribution of credits favoring compressed natural gas (CNG) trucks over zero-emission vehicles (ZEV), granting more credits to methane-based, polluting hydrogen than to zero-emission green hydrogen, and allocating LCFS credits to large Concentrated Animal Feeding Operations (CAFOs) over smaller more sustainable farms.

Since the economic value of LCFS credits increases with a more negative carbon intensity measure, it is imperative for California to reevaluate its practice of awarding credits for “avoided methane emissions.” The existing flawed accounting method, which assigns a carbon intensity range of -102.79 to -790 for factory farm gas, makes no sense compared to the carbon intensity of zero for an electric car powered by solar panels. This calls for a thorough reconsideration of the current approach. To ensure the alignment of incentives with environmental priorities, CARB must discontinue its practice of crediting dairy biogas in the LCFS.

The current CARB proposal is to continue with negative crediting of dairy biogas used directly in the LCFS until 2040<sup>2</sup> and until 2045 if used for hydrogen fuel cells.

This provision must be changed and the crediting for avoided methane emissions discontinued this year.

**2. Cap lipid-based (vegetable oil) biofuels since they lead to tropical deforestation and global food insecurity, resulting from competition for land with food production**

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<sup>1</sup> <https://storymaps.arcgis.com/stories/4b708bdc0d2d419ba34cb352ca79b6e3>

<sup>2</sup> <https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2024/lcfs2024/isor.pdf>

A recent insightful blog post<sup>3</sup> by Dr. Jeremy Martin from the Union of Concerned Scientists, emphasizes the critical need for a cap on lipid-based biofuels to stabilize and strengthen California's Low Carbon Fuel Standard.

Currently the LCFS market is in crisis with low credit prices due in part to a surplus of credits resulting from the excessive use of these biofuels. The interaction between the LCFS and the Federal Renewable Fuel Standard (RFS) intensifies the influx of biofuels into California contributing to the surplus of credits. In addition, increases in the consumption of biofuels, such as soy oil, intensifies the competition for land resources used for food production, thereby worsening global food insecurity and raising food prices. Unchecked growth in the biofuel market poses a significant risk of increasing global deforestation, especially as there are limits on waste oil collection and reuse, necessitating expanded production of soy oil and other oil substitutes like palm oil.

Dr. Martin argues that increasing the stringency of the LCFS, as proposed by CARB, is unlikely to alleviate these adverse effects and may, in fact, lead to more detrimental outcomes. He highlights the urgency of transitioning away from vegetable oils to more scalable feedstocks. We strongly agree and support the implementation of a cap<sup>4</sup> on the use of vegetable oils to provide better incentives to move the LCFS toward feedstocks that do not have such harmful impacts on tropical forests and food production.

**3. End the crediting of Carbon Capture and Storage projects that use captured carbon for enhanced oil recovery, as this conflicts with statewide prohibitions in SB 1314 (Limón 2022) and SB 905 (Caballero 2022).**

As explicitly stated clearly in SB 1314<sup>5</sup> (Limón 2022):

**SECTION 1.** The Legislature finds and declares that the purpose of carbon capture technologies and carbon capture and sequestration is to facilitate the transition to a carbon-neutral society and not to facilitate continued dependence on fossil fuel production.

This legislation unequivocally recognizes the incompatibility of enhanced oil recovery (EOR) with California's carbon neutrality policies. SB 905 (Caballero 2022), addressing carbon sequestration, also prohibits the use of carbon capture and storage for EOR.

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<sup>3</sup><https://blog.ucsusa.org/jeremy-martin/a-cap-on-vegetable-oil-based-fuels-will-stabilize-and-strengthen-californias-low-carbon-fuel-standard/>

<sup>4</sup> <https://theicct.org/wp-content/uploads/2022/08/lipids-cap-ca-lcfs-aug22.pdf>

<sup>5</sup> [https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill\\_id=202120220SB1314](https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=202120220SB1314)

EOR poses harm<sup>6</sup> to nearby communities, causing toxic air pollution, impairing groundwater, and presenting a risk of blowouts. In line with these legislative prohibitions, CARB should exclude EOR projects both inside or outside California from receiving LCFS credits.

To fulfill CARB's commitment to integrating environmental justice<sup>7</sup> into its rulemaking, policy development, and implementation activities, including the LCFS, it is critical to disallow EOR from receiving LCFS credits. This action will provide essential safeguards for historically disadvantaged, low income, and frontline communities.

Finally, we wish to point out that Professor Michael Wara<sup>8</sup> and colleagues from Stanford University presented modeling results in the May 31st CARB LCFS Virtual Community meeting that clearly showed CARB can improve the integrity of the LCFS by eliminating credits for avoided methane by 2024 and putting a cap on crop-based biofuels. These are the prescribed changes 1 and 2 that are recommended in this letter. Furthermore, the modeling results show that these changes to the program will not adversely affect the LCFS credit price. Indeed, the concluding bullet from the Stanford presentation reads:

*“Stanford modeling suggests EJ scenario could achieve ARB goals while lowering impacts to EJ communities and potentially improving climate outcome”*

It is perplexing to note that this important result and presentation did not get consideration in any of CARB's LCFS proposals. We urge CARB to incorporate these important findings and act on them to improve the climate and community impact outcomes for California.

Thank you for the opportunity to provide feedback and comments on the 2024 LCFS proposals.

Respectively Submitted,

Ellie Cohen  
*Chief Executive Officer*  
*The Climate Center*

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[https://www.cleanwateraction.org/sites/default/files/docs/publications/EOR%20Risk%20and%20Oversight%20Factsheet\\_0.pdf](https://www.cleanwateraction.org/sites/default/files/docs/publications/EOR%20Risk%20and%20Oversight%20Factsheet_0.pdf)[https://www.cleanwateraction.org/sites/default/files/docs/publications/EOR%20Risk%20and%20Oversight%20Factsheet\\_0.pdf](https://www.cleanwateraction.org/sites/default/files/docs/publications/EOR%20Risk%20and%20Oversight%20Factsheet_0.pdf)

<sup>7</sup> <https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2024/lcfs2024/isor.pdf>

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<sup>8</sup> <https://ww2.arb.ca.gov/sites/default/files/2023-05/Stanford%20Presentation.pdf>

