January 26, 2022

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Re: Petition for Rulemaking to Exclude All Fuels Derived from Biomethane from Dairy and Swine Manure from the Low Carbon Fuel Standard Program

Dear Ms. Lazenby and Mr. Newell,

Thank you for the petition for rulemaking,1 submitted by Vermont Law School’s Environmental Justice Clinic and Public Justice on behalf of the Association of Irritated Residents (AIR), Leadership Counsel for Justice & Accountability, Food & Water Watch, and Animal Legal Defense Fund, on October 27, 2021, to the California Air Resources Board (CARB).2 CARB initially acknowledged receipt of the petition on November 8, 2021.3 We appreciate that petitioners agreed to toll the deadline for response to the petition to January 28, 2022, while we took opportunities to discuss the petition with petitioners to better understand the concerns as well as the availability of supporting documentation.4

In your petition, you requested that CARB amend the Low Carbon Fuel Standard (LCFS) regulations found at Title 17, California Code of Regulations (CCR), sections 95480 through 95503. The LCFS regulations are authorized by the Global Warming Solutions Act of 2006

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1 Submitted pursuant to Government Code, § 11340.6.
2 The petition is available from CARB upon request.
3 See letter from Mr. Matthew Botill, Chief, Industrial Strategies Division, CARB, to Ms. Ruthie Lazenby and Mr. Brent Newell, counsel for petitioners, attached as Exhibit A.
4 See tolling agreement executed on December 6, 2021, attached as Exhibit B.
(Stats. 2006, Ch. 488, commonly referred to as AB 32.) Specifically, the petition requests that CARB exclude all fuels derived from biomethane from dairy and swine manure from the LCFS, or, in the alternative, to reform the LCFS treatment of those fuels to account for additional greenhouse gas (GHG) emissions. The sections of the regulation that the petition requests that CARB amend are title 17, CCR, sections 95488.3 and 95488.9(f).

I want to take this opportunity to again thank the petitioners for taking the time to meet twice with me and other CARB senior management (on December 14, 2021, and also earlier this month on January 13, 2022). I also appreciate you, as a result of those meetings, sharing additional information for our consideration. I found the discussions productive and hope that they will continue through our public processes. I welcome continued engagement on the concerns raised in the petition as we consider the scope of potential amendments which will be discussed with all interested stakeholders as part of a public process we will initiate by first quarter of 2023. In the meantime, we welcome petitioners’ input as we review and compile related materials.

CARB and petitioners share a commitment to ensure that CARB programs such as the LCFS continue to reduce air pollution disparities experienced by impacted communities, and that any adjustments to the regulation are carefully evaluated and done so through an open public process. Since 2019, LCFS staff have carefully reviewed comments received from various stakeholders (including the petitioners) in opposition to as well as support of the certification of animal manure biomethane pathways under the current LCFS regulation, and appreciate petitioners’ contributions to strengthening that process.6

CARB further agrees it is important, as petitioners urge, to “ensure the LCFS provides environmental benefits and does not degrade water quality and interfere with efforts to improve air quality in the San Joaquin Valley.”7 CARB is committed as an organization to continue to use its authority (including the regulations it develops and implements such as the LCFS) to take action to protect the state’s most impacted communities while reducing both GHG and other project-related criteria pollutants and toxics air contaminants. We invite ongoing dialogue with the petitioners as well as other stakeholders regarding information and data to ensure that the programs CARB develops and implements are delivering the intended benefits throughout the state and in communities.

As noted, we are committed to engaging with petitioners on their concerns, and committed to ensuring our programs focus on environmental justice and environmental integrity. However, the petition’s specific requests for a near-term rulemaking are premature. I am therefore denying your petition in part and granting it in part for the reasons that follow.

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Relationship Between Ongoing AB 32 Scoping Plan Update and Potential Future LCFS Amendments

As petitioners are aware, CARB is coordinating an ongoing public process to develop an update of California’s statewide strategy to achieve its climate change emissions reduction targets. This statewide strategy, known as the “Scoping Plan,” is due to be considered by our Board in 2022. The Scoping Plan is the statewide climate change strategy “for achieving the maximum technologically feasible and cost-effective reductions of greenhouse gas emissions” focusing on evaluating the integration of incentives, programs, and regulations to achieve the state’s climate targets. CARB has convened the AB 32 Environmental Justice Advisory Committee to consult and advise on the development of the 2022 Scoping Plan update. As a part of their advisory role, the Environmental Justice Advisory Committee will be conducting community engagement.

The first Scoping Plan was adopted by the Board in 2008, and the most recent update was adopted in late 2017. In June 2021, CARB began the process for the next update to the Scoping Plan for Board consideration in late 2022. Materials related to the ongoing public process, including workshop notices, relevant documents, and public feedback received, are available on our website. As part of the 2022 Scoping Plan update, staff will consider legislative statutory direction, the Governor’s Executive Orders, the latest science, and recommendations from the AB 32 Environmental Justice Advisory Committee and all other stakeholders on how to transition away from combustion of fossil fuels in all sectors of the economy. The LCFS has been included in past AB 32 climate change scoping plans as part of the mix of policies designed to drive emissions reductions from the transportation sector. That sector continues to be our largest source of greenhouse gases and harmful local air pollution.

We expect the 2022 Scoping Plan update to identify potential changes necessary to deploy clean fuels and technologies across the economy in order to achieve the state’s climate targets. This may ultimately require changes to existing programs, such as the LCFS, or the identification of new programs. But the general direction of such revised or new programs will be informed by recommendations included in the final 2022 Scoping Plan update to ensure California has a holistic, fully-integrated, economy-wide state strategy for meeting its GHG reduction targets.

Past experience with our Scoping Plans is illustrative: The 2017 Scoping Plan update provided recommendations to strengthen LCFS statewide carbon intensity benchmarks in order to help the state achieve our 2030 GHG emissions reduction target of 40 percent below 1990 emissions levels. Following those recommendations, CARB staff proposed LCFS amendments in 2018, which significantly strengthened the program’s regulatory targets –

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8 AB 32 directs CARB to develop, and update at least once every five years, the overarching climate change strategy known by the statutory term “scoping plan.” See Health and Safety Code, § 38561.
9 Id.
from a 10 percent average reduction in statewide transportation fuel lifecycle carbon intensity (CI) by 2020, to a 20 percent CI reduction by 2030. Those LCFS amendments grew out of an extensive informal public stakeholder feedback process launched in 2016,\textsuperscript{11} and were formally proposed and eventually adopted in 2018.\textsuperscript{12} As required by law, CARB in amending these regulations carried out an environmental analysis pursuant to the California Environmental Quality Act, as well as an economic impact analysis required for major regulations.\textsuperscript{13} By the time CARB submitted the final Board approved regulatory package to the Office of Administrative Law, interested stakeholders had provided input on the proposed concepts and amendments through more than two dozen public workshops or working meetings. The proposed amendments were introduced for public and Board member discussion at two Board hearings, and CARB staff responded to hundreds of public comments submitted.

Therefore, it is premature to consider amending the LCFS regulation until the Scoping Plan update process has informed how the state’s portfolio approach to climate mitigation may be best structured to deliver cost-effective, technologically feasible, and direct emissions reductions across various sources. CARB staff outlined the anticipated relationship between the 2022 Scoping Plan update and potential future LCFS amendments during the December 7, 2021, LCFS workshop. Specifically, because the 2022 Scoping Plan update will evaluate how California can achieve carbon neutrality by mid-century, including the types and role of low carbon fuels needed in the future, final Board member and public input on that update is likely to inform any eventual staff recommendations on potential amendments to the LCFS. Thus, our staff do not plan to formally propose regulatory changes to the LCFS until after the 2022 Scoping Plan update has been considered by the Board and after informal pre-rulemaking workshops on potential LCFS amendments. However, both the public meetings on the 2022 Scoping Plan update, and on concepts for potential changes to the LCFS as recently occurred, provide an opportunity for CARB staff and petitioners, in open public processes, to discuss the most beneficial role for biomethane in displacing fossil energy, and options to achieve the state’s methane reduction targets for 2030. The public meetings of the Environmental Justice Advisory Committee, as well as the recommendations the committee will develop through that process, will provide an additional opportunity for conversation.

We recognize that consideration of LCFS amendments may be necessary to reflect direction from the Scoping Plan update and incorporate changes in conditions and policies that have occurred since the last major LCFS amendments in 2018. Therefore, similar to the public process on the 2017 Scoping Plan update and the 2018 LCFS amendments, CARB staff plan,

\textsuperscript{11} See LCFS public working meetings archive materials available here: https://ww2.arb.ca.gov/resources/documents/lcfs-meetings-workshops-archive#2016


\textsuperscript{13} A standardized regulatory impact analysis is required of any regulatory action “that will have an economic impact on California business enterprises and individuals in an amount exceeding fifty million dollars ($50,000,000), as estimated by the agency.” (Govt. Code Section 11342.548.)
throughout 2022, to host informal public workshops and meetings to discuss and consider potential changes to the LCFS program. Petitioners did participate in the initial LCFS public workshop on potential future changes to the LCFS program hosted by CARB staff on December 7, 2021, and submitted one\(^\text{14}\) of more than 100 feedback letters received and currently under consideration following that workshop.\(^\text{15}\) LCFS staff are currently evaluating that wide ranging public feedback, and working to schedule additional public meetings to continue that discussion.

**Considering Senate Bill (SB) 1383 and the Need for Methane Reductions**

SB 1383 (Stats. 2016, Ch. 395) codified the state’s methane reduction milestones, which include the target of reducing statewide livestock manure methane emissions 40 percent below 2013 levels by 2030.\(^\text{16}\) Methane is among the high global-warming potential gases with short atmospheric lifetimes we group under state law as “short-lived climate pollutants.” In 2017, following a requirement in SB 1383, CARB approved a Short-Lived Climate Pollutant (or SLCP) Reduction Strategy,\(^\text{17}\) which was designed as California’s comprehensive plan for reducing SLCPs, including methane from dairies and other sources, and discussed the LCFS as one potential regulatory tool for promoting progress toward achieving SLCP reduction goals. In addition to directing CARB to potentially develop methane reduction regulations to achieve those targets, the same section of SB 1383 also directs CARB to “ensure” LCFS crediting for methane reductions.\(^\text{18}\) The current LCFS provisions specifically authorizing the generation of LCFS credits for volumes of biomethane supplied as transportation fuel associated with captured methane from agricultural manure are responsive to that SB 1383 statutory direction. Beyond the petition’s recommended exclusion of those fuels, to the extent that the petition recommends reform of those provisions to more effectively maximize benefits, and avoid potential harms, we welcome and appreciate petitioners ongoing engagement, and look forward to working with you in the consideration of any subsequent amendments to the LCFS.

\(^{14}\) Following the submittal of the petition, in addition to petitioners’ January 7, 2022, comment following the December 7, 2021, workshop, petitioners submitted comments on December 14, 20, and 21, 2021, and January 24, 2022, regarding CARB certification of LCFS Tier 2 pathways posted for public comment. Those comments have been or will be addressed separately from this petition response as appropriate.


\(^{16}\) Health & Safety Code, § 39730.7.

\(^{17}\) The 2017 SLCP Reduction Strategy and supporting documents, including the associated environmental analysis, are available here: [https://ww2.arb.ca.gov/resources/documents/slcp-strategy-final](https://ww2.arb.ca.gov/resources/documents/slcp-strategy-final)

\(^{18}\) Specifically, Health & Safety Code, § 39730.7(e) directs that CARB “shall ensure that projects developed before the implementation of [methane reduction] regulations [not yet developed or adopted now] receive [LCFS] credit for at least 10 years.”
As supported by California’s 2017 Scoping Plan, SB 1383, the 2018 LCFS rulemaking process, including its associated environmental analysis, the current LCFS crediting regime for biomethane derived from animal manure is delivering the significant benefits it was designed to achieve. Specifically, the current LCFS crediting incentive for manure methane capture for transportation fuel use appears to be spurring the development of new digester projects. CARB staff estimates that those projects will significantly reduce methane emissions associated with the animal agriculture sector in California and beyond. Since the 2018 LCFS amendments came into effect, the number of operational digesters capturing methane from animal manure lagoons in California has nearly quadrupled, from approximately 20, to approximately 77 today. CARB staff estimate that these new digesters, in addition to providing local odor and other air quality benefits, will reduce methane emissions by approximately 75 percent during the lifetimes of these projects. The current LCFS regulatory scheme in effect has supported replacement of diesel heavy duty vehicles with natural gas vehicles, which reduces GHG emissions and decreases criteria air pollutant emissions from transportation. Volumes of animal waste-derived biomethane reported as transportation fuel to the LCFS grew from less than 1.5 million therms, in 2018, to more than 20 million therms in 2020 (the latest full year for which reported volumes is available). Accordingly, potential future improvements to that part of the LCFS will be best addressed in the context of a broader effort to strengthen the regulation as informed by the state’s updated overall climate change strategy. We recognize the concerns expressed in your petition about facility consolidation issues, and potential associated environmental impacts, and look forward to reviewing additional data and continuing discussion throughout the workshop and regulatory processes.

**Determination and Conclusion**

Therefore, after careful consideration of your petition, the relevant law, and the current context of ongoing development of the next AB 32 climate change Scoping Plan and anticipated subsequent regulatory activity, I have reached a decision on your petition, pursuant to Government Code section 11340.7. The Code provides that CARB “may grant

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19 Final Environmental Analysis for Amendments to the Low Carbon Fuel Standard and the Alternative Diesel Fuels Regulation, September 17, 2018.
21 See, for example, non-GHG air quality benefit information reported associated with digester projects supported by the Dairy Digester Research and Development Program (DDRDP) administered by the California Department of Food and Agriculture, available on the [California Climate Investments Project Map](https://climateinvestments.ca.gov). According to *California’s Greenhouse Gas Inventory*, methane emissions from an anaerobic lagoon is estimated at 8.3 tons CO2e per dairy cow per year, whereas methane emissions from an anaerobic digester is estimated at 2.06 tons CO2e per dairy cow per year.
23 The Board may delegate any duty it deems appropriate to its Executive Officer (Health and Safety Code section 39515(a)). The Board is conclusively presumed to have delegated any of its powers to the Executive Officer unless it has expressly reserved that power to itself (Health and Safety Code section 39516). The Board has not reserved the power to act on rulemaking petitions and it is, therefore, appropriate for me to act on this petition pursuant to my delegated authority.
or deny the petition in part, and may grant any other relief or take any other action it may
determine to be warranted by the petition.”24 I am denying your petition in part, and
granting other relief in part.25 Specifically, I am:

(1) Denying your petition in part by declining to amend the LCFS Regulation at this
time in the manners suggested.

(2) Granting other relief by affirming that CARB will continue to engage with
petitioners on the programmatic and environmental justice and environmental
integrity concerns raised in the petition through the ongoing AB 32 Climate Change
Scoping Plan update process and upcoming informal workshops on LCFS throughout
2022, both of which will inform any future LCFS amendments. The proposed
amendments will be fully vetted in a public process when we launch the formal
rulemaking process in early 2023. Throughout this process CARB will continue to
focus on improving air quality and health in the state’s most impacted communities,
ensure progress is made in achieving state and federal air quality standards, and
reduce GHG emissions from all sources. CARB is committed to continue to encourage
the reduction of emissions from dairy and swine farms.

The record upon which this decision is based includes the petition and its exhibits, this letter,
the materials referenced herein, and its attachments.

In accordance with Government Code section 11340.7, subdivision (d), a copy of this letter is
being transmitted to the Office of Administrative Law for publication in the California
Regulatory Notice Register. The agency contact person in this matter is Gabriel Monroe,
Senior Attorney, available at (916) 324-2132 or Gabriel.Monroe@arb.ca.gov. Interested
parties may obtain a copy of the petition upon request to Chris Hopkins, available at (279)
208-7347 or Chris.Hopkins@arb.ca.gov. Upon request, physical copies would be obtained
from 1001 I Street, Sacramento, California, 95814.

Sincerely,

Richard W. Corey
Executive Officer
California Air Resources Board

cc: (via email only)

24 Govt. Code, § 11340.7(b).
25 Government Code 11340.7 provides that an agency addressing a petition shall “identify the agency, the
party submitting the petition, the provisions of the California Code of Regulations requested to be affected,
reference to authority to take the action requested, the reasons supporting the agency determination, an
agency contact person, and the right of interested persons to obtain a copy of the petition from the agency.”
This response fulfills those requirements.
Ms. Lazenby and Mr. Newell
January 26, 2022
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cc: Phoebe Seaton, Leadership Counsel for Justice & Accountability
    Tom Frantz, Association of Irritated Residents
    Tarah Heinzen, Food & Water Watch
    Tyler Lobdell, Food & Water Watch
    Cristina Stella, Animal Legal Defense Fund
    Christine Ball-Blakely, Animal Legal Defense Fund
    Liane M. Randolph, CARB Chair
    Honorable Board Members
    Rajinder Sahota, CARB Deputy Executive Officer
    Chanell Fletcher, CARB Deputy Executive Officer
    Ellen M. Peter, CARB Chief Counsel