September 21, 2026

Submitted via ca.gov

Lauren Sanchez, Chair
California Air Resources Board
1001 I Street
Sacramento, CA 95814

Re: Tier 2 Pathway Application No. B0951

Dear Chair Sanchez,

Leadership Counsel for Justice & Accountability, Central Valley Defenders of Clean Water & Air, Food & Water Watch, and Animal Legal Defense Fund (collectively, "Commenters") write in opposition to Calgren Dairy Fuels, LLC's Tier 2 pathway application. As Commenters have explained through numerous comments, the Petition for Rulemaking to Exclude All Fuels Derived from Biomethane from Dairy and Swine Manure from the Low Carbon Fuel Standard Program (included and incorporated here as Exhibit A), and the Petition for Reconsideration (included and incorporated here as Exhibit B), the California Air Resources Board's ("CARB") treatment of factory farm gas under the Low Carbon Fuel Standard ("LCFS") is flawed, and staff's assessment of this application is no different. CARB cannot certify this application—especially now that it has directed the Executive Officer in Resolution 24-14 to "prepare a plan for initiating, developing, proposing, and implementing a livestock methane regulation[.]"[1]

Commenters oppose this application for several reasons. First, the application incorporates an unlawfully truncated system boundary that ignores feedstock production at the source factory farms—Fern Oaks Dairy in Porterville, California, which confines 6,590 cows; 4 Corners Dairy in Tulare, California, which confines 6,500 cows; Legendairy Farms and Legendairy Farms West in Tipton, California, which confines 7,850 cows; and Four J Dairy Farms in Pixley, California, which confines 4,300 cows; ***25,240 cows*** in total[2]—and other emissions such as those from storage and disposal of digestate, resulting in artificially low Carbon Intensity ("CI") values and inflated credit generation. A fuel pathway life cycle analysis must take into account "feedstock production" and "waste generation, treatment and disposal."[3] In addition to the evidence provided in Exhibits A and B, more recent research indicates that emissions from factory farm gas production are significantly higher than currently appreciated, with especially high emissions from digestate storage.[4] This recent study did not consider

[1] CARB, PUBLIC HEARING TO CONSIDER PROPOSED LOW CARBON FUEL STANDARD AMENDMENTS, RESOLUTION 24-14 at 7 (Nov. 8, 2024), https://perma.cc/V4UV-YFW6. CARB has since solicited feedback from the public on reducing dairy methane emissions to implement SB 1383. CAL. AIR RES. BD., INFORMATION SOLICITATION TO INFORM IMPLEMENTATION OF THE DAIRY AND LIVESTOCK PROVISIONS OF SENATE BILL 1383 (Jan. 28, 2026), https://perma.cc/2F4B-WAVL.
[2] Application B0951 CARB Staff Summary at 2.
[3] Cal. Code Regs. Tit. 17 §§ 95481(a)(66), 95488.7(a)(2)(B).
[4] Semra Bakkaloglu et al., *Methane Emissions Along Biomethane and Biogas Supply Chains Are Underestimated*, 5 ONE EARTH 724–736 (June 17, 2022), https://www.sciencedirect.com/science/article/pii/S2590332222002676.

additional emissions from digestate handling and application, which is another potentially large source of emissions resulting from factory farm gas production that must be included in the pathway life cycle analysis.[5] Yet, CARB and the pathway applicants ignore these and other emissions. In other words, this application dramatically undercounts the greenhouse gas emissions associated with this fuel by failing to apply the required "well-to-wheel" analysis.

Concurrently, this application overcounts environmental benefits by ignoring that this is, in one factory farm owner's words, "***lucrative***" feedstock production.[6] Liquified manure rotting anaerobically in massive waste "lagoons" is not an unavoidable and natural consequence of animal agriculture operations. This system and the methane emissions that it causes are the result of the source factory farms' intentional management decisions designed to maximize profits and externalize pollution costs. CARB cannot ignore that the emissions the pathway applicants claim as captured from the factory farms' lagoons are intentionally created in the first place. The manure handling practices at these factory farms are an integrated part of generating and using factory farm gas. Thus, the gas generated at these facilities is an intentionally produced product and cannot now be claimed as "captured" to secure lucrative negative CI values.

Second, CARB has failed to ensure that certification of this pathway complies with the additionality requirements of Health and Safety Code section 38562.[7] The Calgren Dairy Fuels project participates in the federal Renewable Fuel Standard.[8] The Fern Oaks and Legendairy digesters were built with funding from the Dairy Digester Research and Development Program, totaling over $2,888,000 in public investment.[9] As we explained in both of our petitions, the California Department of Food and Agriculture (CDFA) has already claimed the purported methane emission reductions from these digesters. These purported methane emission reductions would have occurred without the LCFS and are not additional. Certification of these pathways with this proposed CI value would openly violate § 38562 by crediting nonadditional reductions.

It appears that CARB has not analyzed whether these purported emissions reductions "otherwise would occur" at all.[10] For example, the Lifecycle Analysis Report describes how

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[5] *Id.* at 728; Michael A. Holly et al., *Greenhouse Gas and Ammonia Emissions from Digested and Separated Dairy Manure During Storage and After Land Application*, 239 AGRIC. ECOSYSTEMS & ENV'T 410, 418 (Feb. 15, 2017), https://doi.org/10.1016/j.agee.2017.02.007; Roger Nkoa, *Agricultural benefits and environmental risks of soil fertilization with anaerobic digestates: a review*, 34 AGRONOMY FOR SUST. DEV. 473 (2014), https://link.springer.com/article/10.1007/s13593-013-0196-z; F. Montes et al., *SPECIAL TOPICS — Mitigation of methane and nitrous oxide emissions from animal operations: II. A review of manure management mitigation options*, 91 J. OF ANIMAL SCI. 5070 (2013), https://academic.oup.com/jas/article/91/11/5070/4731316; Kurt Möller & Walter Stinner, *Effects of different manuring systems with and without biogas digestion on soil mineral nitrogen content and on gaseous nitrogen losses (ammonia, nitrous oxides)*, EUROPEAN J. OF AGRONOMY (2009), https://www.sciencedirect.com/science/article/abs/pii/S1161030108000695?via%3Dihub.

[6] Stacey Smart, *Deer Run Dairy wins national sustainability award*, DAIRY STAR (June 27, 2022), https://dairystar.com/Content/Home/Home/Article/Deer-Run-Dairy-wins-national-sustainability-award/80/254/18626 (emphasis added) ("Installed in 2011, the digester supplied power to nearly 600 homes. In 2020, the farm converted over to renewable natural gas that is injected into the pipeline, which Duane said is a more lucrative option.").

[7] *See* Ex. A, Petition for Rulemaking, section III.A.2; Ex. B, Petition for Reconsideration, section III.A.3.

[8] Application B0951 CARB Staff Summary at 2.

[9] REPORT OF FUNDED PROJECTS – DAIRY DIGESTER RESEARCH AND DEVELOPMENT PROGRAM, CAL. DEP'T OF FOOD AND AGRIC. 25, 28 (2023) available at https://perma.cc/2M9G-JRVQ.

[10] *See* Health & Saf. Code, § 38562, subd. (d)(2).

manure flush water from Four J Dairy, between 2014 to October 2024, "was directed to a mixed substrate digester . . . located .7 miles away on-site at the Calgren Renewable Fuels (Calgren) campus for generation of biogas used as thermal production fuel in Calgren's co-located heat and power cogeneration plant."[11] The Calgren campus digester handled manure from Four J Dairy right up until the current digester at Four J Dairy completed construction in October 2024 on a new lagoon.[12] Yet the Lifecycle Analysis Report describes the previous manure management system as "interim" and "not a baseline condition"[13] without any justification or explanation. CARB should properly consider the previous ten years of manure management at Four J Dairy as the farm's baseline. Without an additionality analysis, CARB cannot know whether the purported emissions reductions would have occurred but-for the LCFS program, or whether similar reductions would have occurred regardless through use of the old digester.t

Third, this application is a good example of how CARB's flawed approach is rewarding the biggest factory farm polluters and incentivizing further expansion and herd consolidation, which does more climate harm than good. The source factory farms are not sustainable family farms—they are large industrial operations that confines a total of ***25,240 cows***.[14] CARB should not allow these factory farms—or the applicants—to profit from the LCFS.

Fourth, this application is so opaque that it is impossible for Commenters or other stakeholders to meaningfully evaluate it.[15] The lifecycle analysis redacts information critical to understanding the CI calculations. The CI values for biogas from dairy manure at Legendairy Farms and Four J Dairy are unusually low, -411.85 and -411.66, when the average current CI score for biogas to natural gas pathways approved in 2026 was -276.29.[16] However, neither the applicants' materials nor CARB's summary contains a clear justification for these CI values.

Fifth, the inflated CI values CARB proposes work an additional environmental injustice on California citizens who will be exposed to higher levels of pollution from fossil transportation fuel and dirty vehicles made possible by excessive credit generation at factory farms. CARB has acknowledged that pollution from transportation fuels inflicts a racially disparate impact, so this continued certification of fuel pathways with extreme negative CI values to allow more pollution from deficit holders contributes to this injustice.[17]

Finally, the certification of these pathways would result in a discriminatory impact, in conflict with CARB's obligations under California Government Code § 11135, Title VI of the Civil Rights Act, and Health and Safety Code § 38562(b)(2) which impose an affirmative duty on CARB to ensure that its policies and practices do not have a discriminatory impact on the

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[11] *Id.*
[12] *Id.*
[13] *Id.*
[14] *Id.*
[15] Publicly posted application materials "must provide sufficient information to allow for meaningful stakeholder review." CAL. AIR RES. BD., LOW CARBON FUEL STANDARD (LCFS) GUIDANCE 20-051 (Apr. 2020), https://perma.cc/856Y-CVVZ.
[16] *See* LCFS Pathways Certified Carbon Intensities, CARB, https://ww2.arb.ca.gov/resources/documents/lcfs-pathway-certified-carbon-intensities (last visited September 8, 2026) (as reflected in the Certified Fuel Pathway Table spreadsheet).
[17] *See* 2020 Mobile Source Strategy at 26–27, https://perma.cc/4P3H-HG3Z.

basis of race and do not disproportionately impact low-income communities. The five dairies are located in Tulare County, which has a significantly higher Latino/a/e/ population than California (approximately 68.2% compared to approximately 41.2%) according to US Census Data.[18] Additionally, Tulare County has a significantly higher poverty rate than California as a whole, and its residents have lower incomes compared to others in the state.[19]

The community that these facilities occupy already faces substantial and disproportionate pollution burden, including extreme and disproportionate impacts from ozone, PM 2.5, drinking water contamination, and groundwater contamination, all of which are caused and exacerbated by dairy operations.[20] According to a study by UC Davis, Tulare County already has one of the highest asthma-related emergency room visit rates for children in the state.[21]

The communities these factory farms occupy also suffer from critical groundwater overdraft and water pollution.[22] The source factory farms are located in the Tule Subbasin, which is critically overdrafted under the Sustainable Groundwater Management Act (SGMA). By granting the application, CARB would further incentivize expansion and herd consolidation—as well as the production of cow manure—in an area that cannot support continued unreasonable groundwater use and abuse by the dairy industry.[23] As explained in the Petition for Reconsideration, wells are already going dry and other adverse effects of overdraft, including further impaired water quality, are already affecting residents and communities in this region.[24]

The certification of this pathway would do nothing to remedy these myriad disproportionate impacts. Rather, it would incentivize the most polluting herd and manure management practices and incentivize the expansion of herd populations. Further, it would violate section 38562 by failing to ensure that such certification would not disproportionately impact low-income communities (§ 38562(b)(2)) and by failing to ensure that it would not interfere with efforts to achieve and maintain federal and state ambient air quality standards (§ 38562(b)(4)).

As this application highlights, CARB's unlawful and unjust administration of the LCFS program is causing environmental and public health harms in California by incentivizing and rewarding some of the worst factory farm practices by making them more "***lucrative***." If California is serious about being a climate leader, this is not the example to set.

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[18] *QuickFacts California; Tulare County, California*, U.S. CENSUS BUREAU, https://www.census.gov/quickfacts/fact/table/tularecountycalifornia/PST045225#qf-headnote-b (last visited Sept. 10, 2026).
[19] *Id.*
[20] *CalEnviroScreen 5.0*, OEHHA, https://experience.arcgis.com/experience/be03d78c74454429ab1d3fd9266d4400/page/Overall-Results?views=View-18 (last visited Sept. 10, 2026).
[21] CALIFORNIA'S SAN JOAQUIN VALLEY: A REGION AND ITS CHILDREN UNDER STRESS, UC DAVIS 21–22 (2017), https://perma.cc/Y8V4-KQWL.
[22] *Critically Overdrafted Basins*, CAL. DEP'T OF WATER RES. (last visited Sept. 9, 2026), https://water.ca.gov/programs/groundwater- management/bulletin-118/critically-overdrafted-basins (listing the Tule Subbasin as critically overdrafted).
[23] CAL. CONST., art. X, § 2; *see* Cal. Water Code § 100.
[24] Ex. B, Petition for Reconsideration, section III.A.4.a–b.

Commenters request that CARB deny the application. To do otherwise will violate California law, further destroy the integrity of the LCFS market, undermine the state's climate change mitigation efforts, and harm California communities.

Respectfully,

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