

December 15, 2023

Submitted via ca.gov

Liane M. Randolph, Chair
California Air Resources Board
1001 I Street
Sacramento, CA 95814

Re: Tier 2 Pathway Application No. B0490

Dear Chair Randolph,

Leadership Counsel for Justice & Accountability, Central Valley Defenders of Clean Water & Air, Animal Legal Defense Fund, Center for Food Safety, and Food & Water Watch (collectively, “Commenters”) write in opposition to the Tier 2 pathway application submitted by California Bioenergy LLC and Bar 20 Biogas LLC. 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.

Commenters oppose this application for several reasons. First, the application incorporates an unlawfully truncated system boundary that ignores feedstock production at the Bar 20 Dairy in Kerman, CA 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.”¹ 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.² This recent study did not consider 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.³ Yet, CARB and the pathway applicants ignore these

¹ Cal. Code Regs. Tit. 17 §§ 95481(a)(66), 95488.7(a)(2)(B).

² 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>.

³ 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>.

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.⁴ 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 intentional manure management decisions that Bar 20 has made, which are designed to maximize profits and externalize pollution costs. CARB cannot ignore that the emissions the pathway applicants claim as captured from these factory farms’ lagoons are intentionally created in the first place. The manure handling practices at these facilities are integrated parts 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” waste to secure a lucrative negative CI value.

Second, CARB has failed to ensure that the additionality requirements of Health and Safety Code section 38562 are met.⁵ If CARB had done so, it would have concluded that the methane capture at issue is patently not additional. The applicants acknowledge that the digester at Bar 20 Dairy has existed and operated since October 2021, without taking advantage of the LCFS. The digester and fuel cell were funded by the Dairy Digester Research and Development program.⁶ 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.

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. This is a factory farm, not a sustainable family farm—a large industrial operation that confines tens of thousands of animals. It is impossible to verify the approximate 13,700 livestock population listed in the staff summary. It appears that Bar 20 encompasses two dairies which are permitted to have up to nearly 11,000 animals⁷ and more than

⁴ 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/80/254/1862> 6 (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.”).

⁵ See Ex. A, Petition for Rulemaking, section III.A.2; Ex. B, Petition for Reconsideration, section III.A.3.

⁶ Available at https://www.cdffa.ca.gov/oefi/ddrdp/docs/2022_DDRDP_Legislative_Report.pdf at page 86.

⁷ See <https://apps.valleyair.org/PublicPermits/Permit/Document?PermitID=C-5203-2-4>; Also see <https://apps.valleyair.org/PublicPermits/Permit/Document?PermitID=C-5203-7-2>

24,000 animals⁸ respectively. CARB redactions make it all the more difficult to confirm what is happening on the ground at this facility. 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.⁹ The lifecycle analysis redacts information critical to understanding the CI calculation.

Fifth, the certification of these pathways would result in a discriminatory impact, in conflict with CARB's obligations under California Government Code 11135 and Title VI of the Civil Rights Act, which impose an affirmative duty on CARB to ensure that its policies and practices do not have a discriminatory impact on the basis of race. The source factory farm is located in Fresno County, which has a significantly higher Latino/a/e/ population than California (55% versus 40.3%) according to US Census Data.¹⁰ Additionally, Fresno County has a higher poverty rate than California as a whole, and its residents have lower incomes compared to others in the state.¹¹

The communities that these factory farms occupy already face substantial and disproportionate pollution burden, including extreme and disproportionate impacts from ozone, PM 2.5, drinking water contamination, and groundwater contamination,¹² all of which are caused and exacerbated by dairy operations. Over twenty percent of children in Fresno County have been diagnosed with asthma, well above the state average.¹³

The community that the source factory farm occupies also suffers from critical groundwater overdraft and water pollution.¹⁴ Bar 20 is located in the Kings 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

⁸ See <https://apps.valleyair.org/PublicPermits/Permit/Document?PermitID=C-5203-8-2>; Also see <https://apps.valleyair.org/PublicPermits/Permit/Document?PermitID=C-5203-8-3>

⁹ 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>.

¹⁰ QuickFacts California; Fresno County, California, U.S. Census Bureau, <https://www.census.gov/quickfacts/fact/table/fresnocountycalifornia/PST045222> (last visited Dec. 13, 2023).

¹¹ Id.

¹² CalEnviroScreen 4.0, OEHHA, <https://oehha.ca.gov/calenviroscreen/report/calenviroscreen-40> (last visited December 12th, 2023) (areas of Fresno County are in the 89th percentile for ozone, 97th percentile for PM 2.5, 96th percentile for drinking water contaminants, and 92nd percentile for groundwater threats).

¹³ UC Davis et al., California's San Joaquin Valley: A Region and its Children Under Stress at 21 (Jan. 2017), https://regionalchange.ucdavis.edu/sites/g/files/dgvnsk986/files/inline-files/CA%20San%20Joaquin%20Valley%20Jan%202017%20-1_0.pdf.

¹⁴ Cal. Dep't of Water Res., Critically Overdrafted Basins, <https://water.ca.gov/programs/groundwater-management/bulletin-118/critically-overdrafted-basins> (last visited Dec. 13, 2023) (listing Kings subbasin as critically overdrafted)

production of cow manure and the use of water to flush manure—in an area that cannot support continued unreasonable groundwater use and abuse by the dairy industry.¹⁵ 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 these areas.¹⁶ This is on top of the dairy industry’s dangerous nitrate loading and other water pollution, which has greatly harmed community health.¹⁷ Granting this application would undermine SGMA and violate Article X, section 2 of the California Constitution.

The certification of these pathways would do nothing to address this disproportionate impact. 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)).

Finally, the inflated CI values CARB proposes here 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.¹⁸

This pathway raises unique concerns, which, if approved, would include a CI of -790.41, the most carbon negative pathway to date to Commeters’ knowledge. As stated above, the lack of transparency in this pathway application makes it impossible to analyze how CARB arrived at this astonishingly low CI value. Based on the information available, it appears that the applicant intends to use the same Solid Oxide Fuel Cell that it has used with fossil gas as part of other projects. These projects generate comparable Carbon Dioxide emissions to those of the baseload grid.¹⁹ Bloom asserts that fuel cells with “directed biogas” are carbon neutral,²⁰ but it is not clear if or how such a fuel cell could produce zero carbon emissions rather than being considered carbon neutral based on modeling pairing it with avoided methane crediting. CARB has redacted the emissions data from this particular project. Given the redactions in the application, it is impossible for stakeholders to understand basic information about project emissions.

¹⁵ Cal. Const., art. X, § 2; see Cal. Water Code § 100.

¹⁶ Ex. B, Petition for Reconsideration, section III.A.4.a–b; *See, e.g.,* Darcy Bostic et al., *Thousands of domestic and public supply wells face failure despite groundwater sustainability reform in California’s Central Valley*, *Nature* (Sep. 8, 2023), <https://perma.cc/FR5Q-YQKJ>.

¹⁷ Ex. B, Petition for Reconsideration, section III.A.4.a–b.

¹⁸ See 2020 Mobile Source Strategy at 26–27, https://ww2.arb.ca.gov/sites/default/files/2021-12/2020_Mobile_Source_Strategy.pdf.

¹⁹ See <https://www.bloomenergy.com/wp-content/uploads/bloom-energy-server-datasheet-2023.pdf>

²⁰ *Id.*

Aside from questions about the veracity of the CI presented here, there are significant concerns about Bloom Energy as the beneficiary of the most lucrative pathway to date. First, Bloom Energy has already been caught dumping hazardous waste from other fuel cell projects into landfills.²¹ Second, as recently as this year Bloom Energy has expressed skepticism that biogas fuel cells are viable because of both lack of supply and cost.²² Why is CARB proposing to grant them this massively lucrative pathway for a market they themselves do not believe in?

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.

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 communities in California and across the country.

Respectfully,

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Leadership Counsel for Justice and Accountability

²¹ See [https://yosemite.epa.gov/oa/eab_web_docket.nsf/RecentAdditionsv2/088EEAB72DF8C28085258566006288E5/\\$File/Final%20Order.%20Bloom%20Energy%20Consent%20Agreement.pdf](https://yosemite.epa.gov/oa/eab_web_docket.nsf/RecentAdditionsv2/088EEAB72DF8C28085258566006288E5/$File/Final%20Order.%20Bloom%20Energy%20Consent%20Agreement.pdf);

See also <https://www.law360.com/cases/56b149e0fb48e44843000001/dockets>

²² See <https://www.svvoice.com/wp-content/uploads/2019/06/BLOOM-ENERGY-PETITION-BASED-ON-CALIFORNIA-ENVIRONMENTAL-QUALITY-ACT.pdf>; See also, <https://www.oregon.gov/deq/ghgp/Documents/BAER-AmazonPDX109Assessment.pdf> at pages 13-14.