September 22, 2021

California Air Resources Board (CARB)
1001 I Street
Sacramento, California, 95814
Submitted Online

Re: Short Lived Climate Pollutant 9/8 Workshop - Recommendations for the 2022 Scoping Plan Update

Dear Members of the California Air Resources Board:

The undersigned environmental, social justice, air quality and public health organizations believe that reducing short lived climate pollutants (SLCPs) is a crucial task of the 2022 Scoping Plan, given the current and imminent threats of wildfire, drought, extreme heat and other climate impacts and the unique potency of SLCPs. Such SLCP reductions must involve strategies that center racial, social and environmental justice and CARB must reject strategies that perpetuate or exacerbate local pollution, greenhouse gas emissions, and public health harms that currently disproportionately impact low-income communities of color. As CARB develops the Scoping Plan, it is imperative that it does not resort to false solutions touted by polluting industries in lieu of meaningful and direct emissions reductions that support our climate goals and create healthier communities and ecosystems.

To this end, we offer the following recommendations, with a focus on dairy methane:

1. The Scoping Plan scenarios should not assume or authorize any new, or continued operation of, dairy digesters nor any new or continued carbon credit or trading schemes that subsidize the production and distribution of energy from manure
2. CARB must cease to classify dairy biogas and its end uses as renewable, clean, green low carbon, and carbon negative.

3. CARB must properly account for the true lifecycle emissions and social costs of biogas production and deployment
4. CARB must properly evaluate and include regulatory actions to further reduce methane emissions from dairies to reach the 2030 goal set in SB 1383 by decreasing methane creation from enteric emissions and manure production / storage in the first place
5. CARB should prioritize and provide sufficient support for low-income households and disadvantaged communities in efforts to reduce black carbon and hydrofluorocarbons (HFCs)

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1. <u>The Scoping Plan scenarios should not assume or authorize any new or continued operation of dairy digesters nor any new or continued carbon credit or trading schemes that subsidize the production and distribution of energy from manure</u>

Our state's problem with dairy methane emissions is one born in large part from the state-supported development of heavily consolidated, confined dairy operations. These massive farms with thousands of cows packed in on small amounts of land (also known as concentrated animal feeding operations, or CAFOs) have become the status quo, supported by law and policies that encourage large herd sizes, animal confinement, and flush-based liquefied manure lagoon storage. The climate and environmental justice impacts of such facilities include massive amounts of methane from not only manure but from enteric emissions and other greenhouse gases from feed, transport/trucking, and other operations. As we have outlined elsewhere,[1] CAFOs also produce extreme localized pollution of water and air, harming community members' health and deteriorating quality of life due to odors, flies, and truck traffic. The location of these CAFOs, particularly in the San Joaquin Valley, lines up with the same counties that have higher non-white populations and lower-income communities as compared to other areas and communities in the state.

State policies and investment schemes that support dairy digesters, carbon credits for dairy-produced energy, and offset schemes that allow polluters to buy out their pollution by funding biogas production only make these problems worse. They incentivize increased herd sizes, and therefore increased emissions, as neverending subsidies and credit schemes create a network of perverse incentives for dairies to create more poop--and more methane. Along with it comes more air and water pollution in environmentally burdened communities and regions. Common sense dictates that if dairy biogas production can account for one third of dairy revenues in the form of Low Carbon Fuel Standard credits,[2] for example, the dairy and gas industry will take steps to maximize those profits by increasing herd sizes and consolidating herds. There is also growing evidence of this trend: recent anaerobic digesters and pipeline infrastructure have been constructed to accommodate expanded herd sizes or attract expanded

[1] See CARB 1383 Analysis Letter_July 14, and Inside Climate News, "Can California Reduce Dairy Methane Emissions Equitably?"August 9, 2021 at https://insideclimatenews.org/news/09082021/california-dairy-methane-emissions/
[2] Smith, Aaron. "What's Worth More: A Cow's Milk or its Poop?" February 03, 2021 at https://asmith.ucdavis.edu/news/cow-power-rising

herd sizes and dairy clusters.[3] As another example, an existing dairy in Merced County initiated the planning process to more than double the size of its current herd from 4,070 to 9,128 cows simultaneously with the installation of a new dairy digester.[4] This dairy received cap-and-trade funds through CDFA's Dairy Digester and Research Development Program in 2019.[5]

These expansions further burden the same overburdened communities, contaminating their drinking water and contributing to already polluted air. Efforts to double line manure lagoons do not alleviate the problem, since most dairies' groundwater nitrate contamination occurs from the overapplication of manure (digested or undigested) on cropland. Additionally, ammonia emissions from digestate – manure exiting an anaerobic digester – have been shown to increase by 81% relative to undigested manure.[6] Ammonia is a PM2.5 precursor and the San Joaquin Valley continues to violate state and federal health-based air quality standards. Thus, incentives for digesters are perversely encouraging the expansion of the unsustainable practices (i.e. large herd sizes, confinement, and manure lagoons) that create methane in the first instance, and producing new pollution and emissions that may not otherwise occur.

If the Scoping Plan were to encourage the production of additional greenhouse gases and pollution, or the further consolidation of a heavily polluting industry that disproportionately impacts low-income communities of color, the Plan would be reckless and in opposition to the climate and equity commitments and directives that CARB holds. We urge CARB to develop Scoping Plan scenarios that do *not* authorize or assume any new or continued operation of dairy digesters and dairy biogas offset and credit schemes, and instead incorporate direct methane reductions, further discussed below.

2. <u>CARB must cease to classify dairy biogas and its end uses as renewable, clean, green, low carbon, and carbon negative.</u>

The subsidization of dairy digesters and the related infrastructure along with incentives to produce factory farm gas is premised in part on the belief that so-called "renewable natural gas" or "biogas" can displace fossil gas as a cleaner alternative. This belief is misplaced. Factory farm gas is neither renewable nor clean. It emits significant criteria pollutants, including

[3] Lakeside Pipeline LLC pilot application, involving an "initial cluster" plan of 10 dairies, encompassing 62,110 cows, notes that the "applicant's future plans include expansions to up to 11 additional dairies (6 digesters)" and contemplates expansion of dairy herd sizes. The Merced Pipeline LLC pilot application incorporates 8 dairies with 39,290 cows, notes that its "project team is already in discussions with the owners of 2 additional dairies," and explains the possibility of "another 11 more potential expansion dairies" and similarly referencing "likely expansions of those dairies[']" herd sizes.
[4]See:
https://web2.co.merced.ca.us/boardagenda/2021/20210713Board/271687/271692/271744/271832/ITEM%2032271832.pdf
[5] CDFA Report to the Joint Legislative Budget Committee: Dairy Digester Research and Development Program Report of Funded Program (2015-2020)
https://www.cdfa.ca.gov/oefi/ddrdp/docs/DDRDP_Report_March2021.pdf
[6] Holly, et al., Greenhouse gas and ammonia emissions from digested and separated dairy manure during storage and after land disposal, Agriculture, Ecosystems and Environment 239 (2017) 410–419, https://www.researchgate.net/publication/313731233_Greenhouse_gas_and_ammonia_emissions_from_digested_and_separated_dairy_manure_during_storage_and_after_land_application

particulate matter, carbon monoxide, and sulfur dioxide,[7] and ozone-forming criteria pollutants (i.e. nitrogen oxides (NOx)).[8] The San Joaquin Valley and other regions of the state that are already not meeting state and federal air quality standards, cannot bear ongoing combustion of dirty fuels.

Additionally, the idea that biogas can be a "bridge fuel" is a mischaracterization. The installation, generation, and use of factory farm gas props up the use of fossil fuel infrastructure and delays California's transition to zero emission energy by locking in lasting infrastructure. In order to fulfill the state's mandate to make this zero emission transition, we can no longer accept half measures like "RNG" from dairies that continue to pollute. And, biogas is incredibly expensive: approximately 10 times as expensive as fossil gas[9] and ratepayer and taxpayer subsidies are necessary to support ongoing operations of biogas facilities and production of biogas.[10]

Finally, CARB's offset and carbon credit schemes that characterize biogas as "carbon negative" are based on a variety of policy decisions (e.g. decisions not to directly regulate dairy methane), incomplete calculations (including failure to include lifecycle emissions from dairy operations as a whole in determining the carbon intensity of dairy biogas), and perverse incentives to create methane in the first place, as discussed above.

3. CARB must properly account for the true lifecycle emissions and social costs of biogas

In examining cost-effectiveness, we urge CARB to determine the full range of social costs and benefits of GHG reduction measures in the Scoping Plan. This assessment must go beyond the analysis of only avoided GHG emissions as analyzed in the 2017 Scoping Plan and recent SB 1383 analysis for livestock, but also incorporate factors such as air and water quality, water use, and public health. Currently, CARB does not factor in the harms caused directly by the digesters themselves or the expanded and ongoing operations at the CAFO dairies that host them. A comment was made and reiterated several times by environmental justice advocates and EJAC members during the 9/8 workshop that a "whole-systems approach" must be taken when considering the lifecycle of emissions from operations such as CAFO dairies. These are large facilities with many climate and environmental impacts and their emissions must be properly accounted for.

As outlined in our July 14th letter, current estimates of emission reductions from dairy digesters to date rely on projects funded through pollution trading schemes (e.g. Cap and Trade, the Low

[7]Cal. State Univ. Fullerton, Air Quality Issues Related to Using Biogas From Anaerobic Digestion of Food Ware 1, 8-9 (2015).
[8]M. Kosuko, et al., Air Quality, Climate & Econ. Impacts of Biogas Mgmt. Technologies 1 (2016).
[9] CARB, Analysis of Progress toward Achieving the 2030 Dairy and Livestock Sector Methane Emissions Target - https://ww2.arb.ca.gov/sites/default/files/2021-06/draft-2030-dairy-livestock-ch4-analysis.pdf at ES-3. See also Earthjustice, "Rhetoric vs. Reality: The Myth of "Renewable Natural Gas" for Building Decarbonization," https://earthjustice.org/sites/default/files/feature/2020/report-decarb/Report_Building-Decarbonization-2020.pdf at p. 13
[10] See CARB 1383 Analysis Letter_July 14,

Carbon Fuel Standard). Such schemes allow polluters to buy reductions attributed to digester projects and keep polluting, with those reductions credited towards that scheme. CARB improperly takes double credit for those same reductions when it analyzes the "reductions" achieved to date and required in the future. CARB should amend its emissions reductions estimates for any digester project selling offsets, LCFS credits, attributable reductions to the Aliso Canyon mitigation program, or any other pollution trading scheme. CARB should exclude such pollution trading from reduction estimates, and any modeling calculations in the Scoping Plan, since those reductions are not additional and are being used to demonstrate compliance with other programs outside of SB 1383.

Additionally, there is no evidence that local communities actually benefit directly from the installation and operation of a dairy digester. The claim is often that the digesters bring jobs, but we have seen no evidence of quality, lasting jobs that support the existing local community. We have seen evidence that only a few digester developers and the industrial, large-scale dairies rake in millions, while nearby communities, small-scale farmers, and workers lose out. Furthermore, we remain concerned that the emissions reductions from digesters reported by dairies and CARB are premature, inflated estimates at best.

Finally, CARB's various credit and offset schemes that benefit, incentivize, encourage and subsidize biogas producers overvalue - in policy, monetary, and rhetorical contexts - the climate benefits of biogas as discussed above. Calculations are based on policy decisions not to regulate dairy emissions, calculations that exclude massive emissions that occur at CAFOs in the production of manure, and incentives that encourage methane creation in the first place.

4. <u>CARB must properly evaluate and include regulatory actions to further reduce methane emissions from dairies to reach the 2030 goal set in SB 1383 by decreasing enteric emissions and manure production in the first place</u>

As many of the undersigned organizations have made clear in previous letters and at the September 8th workshop, pursuant to SB 1383, CARB has the opportunity to take direct action to regulate methane from dairies, starting in 2024. The 2022 Scoping Plan will set the goals and course for future years and because regulation will be an option, it is CARB's responsibility to properly analyze this approach. CARB has not even attempted to consider the possibility of methane reductions supported by allowable regulation. CARB has the duty to consider *all* methane reducing strategies and must prioritize direct emissions reductions over pollution trading schemes. *See* Health & Safety Code § 38562.5(a).

Most other industries in California require polluters to pay for the environmental damage caused (rather than get paid for it, as the dairy industry has through credit schemes and subsidies using tax and ratepayer money) or at the very least, regulate them for such degradation--but not in the case of factory farm dairies. Rather than subsidizing the technologies that perpetuate these polluting practices, California should invest in transitioning these dairies to more sustainable and just practices.

5. Prioritize and provide sufficient support for low-income households and disadvantaged communities (DACs) in efforts to reduce black carbon and hydrofluorocarbons (HFCs)

We echo the comments made by EJAC member Kevin Hamilton during the 9/8 SLCP Workshop regarding the need for low-income communities and DACs to receive support for cleaner technology to reduce HFCs. As new technologies are developed in this sector, it is important that costs are not passed on to low-income customers and that those who most need it are not unfairly burdened with the costs.

Similarly, black carbon from heavy duty trucking has significant impacts on communities living adjacent to distribution centers and warehouses, such as in Fresno and the Inland Valley region. We acknowledge the several important programs and ongoing rules that CARB is implementing or working on to clean up heavy-duty trucks, and we urge CARB to require the expeditious electrification of trucks purchased and on the road as soon as possible, *without* ZEV substitutions for polluting "near zero emission" biogas trucks along the way. Lastly, air monitoring at these industrial warehouse sites is necessary to better understand the problem, the level of emissions from these operations and the public health consequences on nearby communities.

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Thank you for the opportunity to comment on the Short Lived Climate Pollutants Workshop and CARB's efforts in this area for the 2022 Scoping Plan. Please feel free to reach out at any time with questions or to further discuss these recommendations (J Jordan - jjordan@leadershipcounsel.org or Shayda Azamian - sazamian@leadershipcounsel.org).

Sincerely,

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