



January 7, 2022

Cheryl Laskowski
Chief, Transportation Fuels Branch
California Air Resources Board
1001 "I" Street
Sacramento, CA 95814

Submitted Electronically via CARB's Comment Portal

Re: Comments of Dairy Cares on the December 7, 2021 Public Workshop to Discuss Potential Changes to the LCFS Program

Dear Ms. Laskowski,

Dairy Cares¹ appreciates the opportunity to provide the following comments on the California Air Resources Board's ("CARB" or "ARB") December 7, 2021 LCFS Workshop. These comments offer the following recommendations on the Low Carbon Fuel Standard ("LCFS") program:

1. The ARB should prioritize fuel pathway applications that provide direct environmental benefits to California.
2. The ARB should not remove the "deemed complete" provisions within the existing LCFS Regulation.
3. The ARB should provide long-term credit price support through the pilot financial mechanism required by SB 1383, which will help provide greater financial certainty to dairy digester projects, particularly smaller projects.
4. The ARB should reject the October 27, 2021 petition to remove livestock fuel pathways from the LCFS Regulation.

¹ Dairy Cares represents the California dairy sector, including dairy producer organizations, leading cooperatives, and major dairy processors. For more information about Dairy Cares, please visit www.dairycares.com.

DISCUSSION

1. The ARB Should Expedite the Processing of Dairy Livestock Fuel Pathway Applications When a Project Provides Direct Environmental Benefits to California.

Dairy Cares is concerned that the overall volume of applications in the LCFS program has impacted application processing timelines. These delays can create risks for projects. The ARB should consider a hierarchy for reviewing and processing applications to prioritize and expedite those projects that provide direct environmental benefits to California. This is consistent with the laws governing the California LCFS program. For example, Section 38501(h) of the Health and Safety Code directs the ARB to design its regulations to maximize environmental benefits “for California.” This approach is also consistent with other laws such as the Renewables Portfolio Standard and Cap-and-Trade Regulation, which prioritize projects that provide direct environmental benefits to California. This recommended prioritization is consistent with statute, within the powers of the Executive Officer to administer the LCFS Regulation and can be implemented without a formal rulemaking change.

2. The ARB Should Ensure that Any Changes to the “Deemed Complete” Application Provisions are Accompanied with Changes that Allow Crediting as of a Project’s Commercial Online Date.

At the December 7th workshop, the ARB outlined a proposal to remove a “deemed complete” designation from the LCFS pathway processing. Under the current regulations, this provision enables a project developer to receive credits for transportation fuels sales that occurred during the pendency of the application. This is an important provision that allows project developers to recoup project costs and the benefits of actual fuel sales irrespective of how long it takes to process the application. The ARB should not remove this provision in the Regulation, or, at a minimum, provide a guarantee that credits can be generated from previous periods, irrespective of how long it takes to process an application.

3. The ARB Should Provide Long-term Credit Price Certainty for In-State Dairy Projects Consistent with the Statutory Direction of SB 1383.

In recent years, enhanced environmental credit certainty has reduced a considerable market barrier to digester project development by helping project developers obtain funding and financing. Two additional incentives should be pursued by the State to further enhance project funding and financing. The first incentive would be implementing a “pilot financial mechanism” as required by SB 1383. In 2018, the ARB staff developed a white paper on how a pilot financial mechanism could act as a floor price on LCFS credits for in-state digester projects. CARB should now move forward and ensure a pilot financial mechanism is implemented and funded to provide further assurance and market stability for LCFS credits. The pilot mechanism can and should be implemented by the Governor’s Office of Business and Economic Development as part of the California Infrastructure and Economic Development Bank Finance Programs or future implementation of a Climate Catalyst Fund. A pilot financial mechanism would be an important complement to State funded loans and loan guarantees, and would

provide greater long-term certainty to dairy digester project developers. This is particularly important for smaller dairies, where the cost of digester development and the associated facilities can be prohibitive due to the smaller amount of Renewable Natural Gas (“RNG”) production and the need for a longer pay-back period to recover capital costs. Dairy Cares encourages the ARB to revisit the pilot financial mechanism required by SB 1383 as it continues to evaluate various SB 1383 emission reduction strategies.

4. The ARB Should Reject the Petition to Remove Dairy Livestock Fuel Pathways from the LCFS Program.

On October 27, 2021, the Association of Irrigated Residents (“AIR”), Leadership Counsel for Justice & Accountability, Food & Water Watch, and Animal Legal Defense Fund filed a petition to amend the LCFS to exclude all fuels derived from dairy biogas (“Petition”). During the December 7, 2021 Workshop, signatories to the Petition (“Petitioners”) argued for the exclusion of dairy and other livestock pathways from the LCFS program. The Petition raises a number of unsupported arguments for the proposed exclusion. As discussed below, the ARB should reject the Petition. Granting this Petition would jeopardize California’s status as a world leader on Short Lived Climate Pollutant reductions.

a. The Removal of Dairy Biogas from the LCFS Program Would Thwart the Achievement of SB 1383 and Eliminate CARB as a World Leader in the Drive to Reduce Short Lived Climate Pollutants.

Petitioners’ legal arguments completely overlook several laws governing CARB’s actions in adopting the LCFS program.² The drastic change requested by Petitioners would undermine past investments in methane reduction projects and send a disastrous message to investors evaluating all types of carbon and methane reduction projects in California. In other words, Petitioners overlook the global impact of their requested exclusion of dairy projects from the LCFS and the detrimental effect the requested relief would have on California’s ability to achieve the ambitious greenhouse gas (“GHG”) targets established by SB 1383, AB 32, SB 32, and Executive Order B-55-18.

California is a leader on short-lived climate pollutant (“SLCP”) reductions and is among a small handful of national and subnational governments adopting laws governing SLCP reductions. California’s stringent SLCP laws set a model for the rest of the world. Participating in voluntary markets must continue to be a core strategy in reducing SLCPs because it is the only way to regulate methane emissions without creating domestic and international leakage. By excluding dairy digester projects, as requested by Petitioners, California’s dairy farmers would lose the primary tool for reducing methane emissions. The requested relief would also jeopardize California’s status as a world leader on methane reduction strategies.

² For example, Petitioners assert that the LCFS credit revenue will “result in intentionally created methane.” There is not factual basis for this assertion. Over the past ten years, dairy production has decreased in California. Petitioner’s requested relief would exacerbate economic and environmental leakage risks faced by the dairy sector in contravention of California Health and Safety Code Section 38562(b)(8), which requires the CARB to “minimize leakage” in designing GHG regulations like the LCFS.

b. There is No Evidence that the LCFS Results in Intentionally Created Methane from New and Expanding Dairy and Pig Facilities.

Petitioners argue without factual support that the LCFS “perversely incentivizes bigger dairy and pig operations to generate more methane.” Dairy Cares is not aware of any dairy that has increased its herd size based on the economic signals created by the LCFS program. In California, Petitioners’ argument is clearly contradicted by U.S. Department of Agriculture data on livestock populations. As noted in CARB’s recent draft analysis of SB 1383 progress, over the same timeframe of LCFS implementation and fuel pathway approvals for dairies (i.e., since 2011), livestock populations have decreased in California. According to the ARB:

Every five years, the U.S. Department of Agriculture (USDA) conducts a Census of Agriculture (Ag Census), which provides the most consistent and reliable population data available in absence of state-level activity data. As part of the Ag Census, USDA reports the number of animals by type on each farm in the U.S., allowing for state-specific population tracking, including for California’s GHG Emission Inventory. USDA’s two most recent Ag Census reports, from 2012 and 2017, cover dairy and livestock population changes between 2008 and 2017, and provide a basis for estimating methane emissions reductions from average annual population changes. The 2012 Ag Census also provides a reasonable 2013 baseline because it quantifies dairy and livestock populations in California by animal type as of December 31, 2012. Based on the 2012 and 2017 Ag Census reports, CARB staff calculated an average annual decline of 0.5 percent in animal populations from the sector between 2008 and 2017. Assuming that this population change trend will remain constant, methane emissions reduction attributable to sector population decreases will be ~0.13 MMTCO₂e annually or 1.3 MMTCO₂e total through 2022.³

The ARB’s analysis of USDA data is consistent with Dairy Cares’ observations of trends in livestock populations in California. California dairies have faced consolidation, with fewer dairies operating in the state each year and with no new dairies being built in recent years. Equally important, the total number of dairy cows in California has declined, not expanded, since 2008. Overall, the number of dairy cows in the state has been reduced by about 6-7% since a peak of approximately 1.85 million milk cows in 2008. We expect this decline in both cows and dairies to continue with the total number of cows decreasing by at least 0.5 % each year. This ongoing reduction in herd size is being driven by historically depressed milk prices and increasing environmental and labor costs. Dairies in California will also face contraction as a result of the continued implementation of the Sustainable Groundwater Management Act (“SGMA”), and increasing water scarcity in the state. We expect SGMA to reduce the total farmed acreage in California by up to 1 million acres, including dairy farm operations.

³ See Draft Analysis of Progress toward Achieving the 2030 Dairy and Livestock Sector Methane Emissions Target (June 2021) at p. 9, available at: <https://ww2.arb.ca.gov/sites/default/files/2021-06/draft-2030-dairy-livestock-ch4-analysis.pdf>.

In sum, data produced by the federal government and analyzed by the ARB contradicts Petitioners' core argument concerning the effect the LCFS program has on dairy operations. Operating a dairy has many different facets. While the LCFS program creates a mechanism for compliance with SB 1383, it does not create an incentive to expand operations.

c. Digester Projects Provide Environmental Benefits in Local Communities. Digester Projects Do Not Create Co-Pollutants that Harm Local Communities.

Petitioners argue without factual support that digester projects create “new and additional environmental and public health harms...”⁴ Petitioners go to great length to discuss the local environmental impacts of farming and food producing operations in the San Joaquin Valley. Dairy Cares appreciates the importance of addressing the environmental impacts of farming operations in the valley and is working closely with the State Water Board and other regulators to address these issues. The environmental impact of food production operations on local communities is an important issue that is currently being addressed. It is equally important to ensure that emission reduction measures, like digester projects, are not conflated with the environmental conditions they seek to remedy. The Petition is misleading in this regard and fails to provide anything more than mere conjecture that digester projects create significant environmental impacts. Again, Petitioners' arguments are at odds with federal, state and local data on digester projects.

The US Environmental Protection Agency (“EPA”) has observed that “[c]apturing biogas from cattle, hog and poultry farms can reduce greenhouse gas emissions and recovering the methane from the biogas can provide a cost-effective source of renewable energy.”⁵ The California Department of Food and Agriculture (“CDFA”) concludes “[t]he technology has many environmental and social benefits.”⁶ Similarly, the California Air Resources Board's 2017 Short Lived Climate Pollutant Strategy recognizes many potential benefits of digester projects and identifies digester projects as a potential strategy to meet emission reduction targets. The ARB concludes:

Manure management at dairies offers one of the greatest opportunities to reduce methane emissions from these sectors (methane from manure management at California's non-dairy livestock operations comprise less than five percent of overall manure methane). Accordingly, California will aim to structure incentives, policies, regulations, and research to support significant methane emission reductions from dairy manure management.⁷

It is also important to recognize that digester projects have multiple layers of environmental and permitting review. The San Joaquin Valley Unified Air Pollution Control

⁴ Petition at p. 26.

⁵ See US EPA AgSTAR webpage, available at: <https://www.epa.gov/agstar/learning-about-biogas-recovery>.

⁶ CDFA 2020 DDRDP website, available at: <https://www.cdfa.ca.gov/oefi/ddrdp/>.

⁷ See for example, California Air Resources Board 2017 SLCP Reduction Strategy (March 2017) at p. 64, available at: https://ww2.arb.ca.gov/sites/default/files/2020-07/final_SLCP_strategy.pdf.

District, Central Valley Regional Water Quality Control Board, and local agencies have consistently and fully evaluated individual digester project proposals under the requirements of the California Environmental Quality Act (“CEQA”) and other federal, state, and regional environmental and permitting laws such as the state and federal Clean Air Act, as well as the Clean Water Act. Projects developed through utility-funded programs are subject to California Public Utilities Commission jurisdiction and consideration of disadvantaged communities has been a key component of those projects’ evaluations. Similarly, projects funded under CDFA programs provide similar considerations for impacts to local and disadvantaged communities.

Dairy digester projects are being sited at existing facilities. Dairy digester projects provide a significant reduction in methane from traditional manure management practices, thus improving local environmental conditions, and resulting in benefits to public health, including water quality, air quality and odor. Nearly all of the projects that are being developed in California (and funded in part by CDFA through the Dairy Digester Research and Development Program (“DDRDP”)) must demonstrate protection of the environment and comply with stringent water and air quality protection standards, including CEQA.

In particular, the design and construction of digesters must be demonstrated to be protective of surface and groundwater quality.⁸ All digester system design, construction, and operation must minimize emission of air pollutants.⁹ All state funded projects must comply with SB 859 (2016) which requires CDFA, prior to awarding grant funds from the Greenhouse Gas Reduction Fund, to review a comprehensive analysis identifying any and all potential adverse impacts of a proposed project.¹⁰ SB 859 also requires project proponents to conduct outreach in areas that will potentially be impacted by the projects, determine potential adverse impacts, and commit to measures to mitigate identified impacts. CDFA is also required to prioritize projects based on the criteria pollutant emission benefits achieved by the projects. In sum, these projects are carefully reviewed and provide real, quantifiable environmental benefits to local communities.

While the GHG reduction benefits of reducing dairy methane are significant and growing, dairy methane reduction projects also provide substantial local environmental co-benefits, including the reduction of criteria pollutants. A recent analysis conducted by CARB, as part of the Dairy Methane Reduction Working Group,¹¹ documents the potential for reductions of other emissions including, but not limited to:

- Nitrogen Oxide (NO_x)
- Particulate Matter (PM_{2.5} & PM₁₀)
- Hydrogen Sulfide (H₂S)
- Nitrous Oxide (N₂O)
- Volatile Organic Compounds (VOCs)
- Ammonia (NH₃)

⁸ CDFA, Report of Funded Projects, January 2019.

⁹ CDFA, Report of Funded Projects, January 2019.

¹⁰ CDFA, Report of Funded Projects, January 2019.

¹¹ See CARB Emissions Matrix (November 30, 2018), available at:

<https://arb.ca.gov/cc/dairy/documents/05-23-18/dairy-emissions-matrix-113018.pdf>.

As a result, these efforts provide measurable reductions in odor and reactive organic gas, and provide water quality benefits from improvements in manure management.

Finally, the production of RNG as a transportation fuel and sale in California displaces diesel and other fossil fuels, which is one of the primary sources of NO_x and PM in the Valley. The ARB provided a robust analysis of this displacement in the context of its environmental analysis for the LCFS program and concluded that production of RNG from sources like dairies results in net-improvements to California's air quality.¹² Dairy digester projects clearly improve local environmental conditions, and Petitioners' efforts to conflate the effects of digesters with existing environmental conditions should be rejected.

d. The ARB Properly Excludes Enteric Emissions from the System Boundary Calculations for Dairy Pathways.

Petitioners argue that life cycle emissions analysis for dairy pathways must include "methane animals produce through enteric fermentation."¹³ Enteric emissions are produced by the digestion process and are emitted by animals directly. It is important to note that enteric emissions are covered by SB 1383, and Dairy Cares is working with the ARB and other entities to develop a robust compliance offset protocol to facilitate voluntary reductions of this emissions source. The reduction of enteric emissions must be supported by a methodology that ensures reasonable accuracy in quantification and ensures the health of the animals (e.g., through changes in feed).

In arguing that the ARB should include enteric emissions in a life cycle emissions assessment, the Petition fails to consider the fact that life cycle emissions analysis is both complex and subject to considerable discretion by the ARB as the expert on emissions analyses. In developing fuel pathway requirements, the ARB has exercised its expert judgment to exclude enteric emissions from the lifecycle emissions analysis because these emissions sources are part of the pre-existing and underlying non-fuel product stream and are therefore appropriately excluded from system boundary calculations. This is a long standing methodology that dates back to the development of Cap-and-Trade offset protocols for livestock projects. The ARB has not abused its discretion by excluding an emissions source that is part of the existing emissions baseline.

CONCLUSION

Dairy Cares appreciates the opportunity to provide these comments on ways in which the ARB can further the objectives of SB 1383 by continuing to provide a pathway for in-state dairies to meet the SLCP emission reduction requirements. Ongoing crediting opportunities are critical to the State fulfilling its role as a world leader on SLCP emissions reductions. Dairy Cares looks forward to continuing to work with the ARB on the successful implementation of this important program.

¹² See Final Environmental Analysis Prepared for the Proposed Amendments to the Low Carbon Fuel Standard and the Alternative Diesel Fuels Regulation, Appendix D (March 2018) at p. 70, available at: https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2018/lcfs18/finalea.pdf?_ga=2.227622173.1639234547.1576769077-182891752.1541114262

¹³ Petition at p. 13.

Respectfully Submitted,

/s/

Michael Boccadoro

Executive Director

Dairy Cares