Dairy Cares Comments on the November 9, 2022 Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard

December 21, 2022

Dairy Cares[1] appreciates the opportunity to provide the following comments on the California Air Resources Board's ("CARB") Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard ("LCFS"), held on November 9, 2022 ("the Workshop"). Dairy Cares represents the California dairy sector, including dairy producer organizations, leading cooperatives, and major dairy processors. Dairy Cares offers the following feedback in response to information presented at the Workshop. Dairy Cares' comments offer the following recommendations for the 2023 LCFS Rulemaking:

1. The LCFS should align requirements for dairy fuel pathways with the findings in the Scoping Plan, CARB's 2022 Short Lived Climate Pollutant ("SLCP") Report, and recent research by UC Davis, which all show a significant need for ongoing investment in dairy digester methane capture and beneficial use.

2. CARB should refine the scenarios studied in the California Transportation Supply model ("CATS") to more closely align with the fact that dairy digesters remain a core strategy to achieve the State's world-leading 2030 SLCP target.

3. CARB should not exclude new dairy fuel pathway crediting periods. CARB should implement the LCFS-specific statutory requirements from Senate Bill ("SB") 1383 by providing dairy fuel pathway holders an optional application process to justify the need for additional crediting periods.

4. Dairy Cares supports CARB's efforts to create longer-term price stability. Dairy Cares supports a regulatory mechanism to enable the Executive Officer to adjust overall carbon intensity targets in the event that credit banks exceed specified volumes that are in excess of the annual deficit obligations.

[1] For more information about Dairy Cares, please visit www.dairycares.com.

Dairy Cares appreciates CARB's efforts to lead a robust stakeholder process ahead of the formal rulemaking. We look forward to continuing to partner with CARB and stakeholders in the successful achievement of the State's climate goals, particularly the world-leading SLCP target and programs. Greenhouse gas ("GHG") emissions are global pollutants and it is important that CARB demonstrate that its programs can harmonize environmental goals and protect the state's economy, particularly local economies in the disadvantaged communities the State says it will prioritize. California's dairy farm families and developers are striving to develop projects that not only reduce potent SLCP emissions, but also create opportunities for economic development that helps protect jobs and improve baseline environmental conditions in these communities.

DISCUSSION

1. <u>The LCFS Rulemaking Should Align With CARB and UC-Davis Findings Regarding the Need for Continuing Digester Development in Order to Achieve the State's SLCP Target.</u>

CARB and other leading climate researchers have concluded that digester development is a necessity if the State has any hope of fulfilling its role as world leader in the climate community. California is one of the few governments in the world that not only has an SLCP target, but is also taking meaningful action to implement it. Most recently, the 2022 Scoping Plan Update ("Scoping Plan") provides guidance to CARB and other responsible agencies on how individual regulatory programs, such as the LCFS, are needed to ensure that the State's programs collectively achieve the emission reduction targets, including the Short Lived Climate Pollutant reduction goal set in SB 1383.

California's noteworthy progress on SLCP reductions, as well as the need for additional action were thoroughly analyzed in CARB's recent *Analysis of Progress Toward Achieving the 2030 Dairy and Livestock Sector Methane Emissions Target*. The "Analysis of Progress" found that while the State has made considerable progress towards achieving the 2030 SLCP target, it will not achieve the SLCP target without "almost a doubling of emission reductions projects".[2] The Analysis concludes that, "[d]espite considerable State investment and private match funding, incentives have not been sufficient to achieve the 2030 target."[3] Moreover, continued grant funding from the California Department of Food and Agriculture ("CDFA") could be reduced due to anticipated budget deficits. As a result, market mechanisms such as the LCFS become more important to successfully protect project financing. The bottom line is that without markets for beneficial use of captured biomethane, projects will not be financed and built.

The need is acute for CARB to demonstrate to California dairy farmers that there is a financial tool available for them to justify investing in long-term emission reduction solutions at

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[2] See *Analysis of Progress toward Achieving the 2030 Dairy and Livestock Sector Methane Emissions Target, Final*, California Air Resources Board, March 2022, available at: https://ww2.arb.ca.gov/sites/default/files/2022-03/final-dairy-livestock-SB1383-analysis.pdf at p. 9.

[3] Id at pp. 14-15.

their California dairies. A recent analysis published by leading researchers on the California dairy sector underscores the need to invest in digesters in the near term. In December 2022, the California Dairy Research Foundation and University of California, Davis Clarity and Leadership for Environmental Awareness and Research ("CLEAR") Center released a robust analysis of methane reduction progress titled *Meeting the Call: How California is Pioneering a Pathway to Significant Dairy Sector Methane Reduction."*[4] According to this analysis, "[c]ontinued implementation of dairy manure digesters, which capture fugitive methane for beneficial reuse as renewable fuel replacing diesel in heavy duty trucks is expanding rapidly and will deliver another approximately 4 MMTCO2e of reduction annually by 2030. . . All total, these strategies are likely to achieve the dairy methane emission reductions sought by the California Air Resources Board."[5] Dairy Cares is concerned that if avoided methane limits or limited crediting periods are imposed, as suggested by anti-dairy activists, CARB risks failing to achieve the State's SLCP target, thus endangering CARB's status as a world leader on SLCP reductions. The 2023 Rulemaking is a key juncture, and CARB should seize the opportunity to send a strong signal to California dairy farms, the communities they operate in, and climate policy leaders around the world, that California's program designs are highly effective and replicable.

2. **<u>The Scenarios Studied in the CATS Model Should Coincide with CARB's Recent Findings on Progress Towards Achieving SB 1383 Short Lived Climate Pollutant Targets.</u>**

Dairy Cares applauds CARB for developing a set of modeling protocols that will provide a robust record for the rulemaking. However, Dairy Cares is deeply concerned that two of the scenarios would not keep California on a path towards compliance with state law (i.e., SLCP targets). Alternatives A and B, as outlined on slide 31 of the Workshop presentation, are of particular concern as they appear to include a blanket moratorium on new pathways for avoided methane crediting as early as 2030.[6] If implemented in program design, this drastic action would run completely counter to CARB's own findings in the *Analysis of Progress toward Achieving the 2030 Dairy and Livestock Sector Methane Emissions Target*. Dairy digester development will need significant policy and incentive support and there is no other option immediately available.[7] There is no replacement in the Cap-and-Trade Regulation and as discussed above, CDFA funding is limited. There is a near-term need for SLCP reductions and considering drastic measures such as those contemplated in Alternatives A and B would have a chilling effect on

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[4] See Kebreab, Ermias, Ph.D., Mitloehner, Frank, Ph.D., and Sumner, Daniel A., Ph.D., *Meeting the Call: How California is Pioneering a Pathway to Significant Dairy Sector Methane Reduction* (December 2022), available at: https://clear.ucdavis.edu/sites/g/files/dgvnsk7876/files/inline-files/Meeting-the-Call-California-Pathway-to-Methane-Reduction_0.pdf.

[5] Id. at p. 4.

[6] See November 2022 LCFS Workshop Presentation, available at: https://ww2.arb.ca.gov/sites/default/files/2022-11/LCFSPresentation.pdf.

[7] Finding 1-6 in the Analysis at pp. 31-32, available at: https://ww2.arb.ca.gov/sites/default/files/2022-03/final-dairy-livestock-SB1383-analysis.pdf.

digester projects in California. Investors and banks will not fund uneconomic projects that cannot generate revenues needed to offset capital and operating costs.

Digesters are the only proven way for the dairy sector to control livestock manure methane emissions and cost-effectively achieve SLCP reductions **without creating domestic and international leakage**. Dairy Cares strongly recommends changing scenario Alternatives A and B to include biomethane crediting beyond 2030. Granting a second 10-year crediting period when warranted will be vital to keeping the necessary pace of development for these projects on track, particularly considering that many projects rely upon a 20-year business model (see policy recommendation in Section 3 of these comments).

3. CARB Should Not Limit Opportunities for Digester Development in the LCFS Program. CARB Should Provide an Optional Application Process for Fuel Pathway Holders to Justify the Need for Additional Crediting Periods.

In order to meet the SLCP reduction targets adopted in SB 1383, it is crucial that California continue to support and accelerate the utilization of existing, proven technologies and markets, such as digesters and the beneficial use of biogas. Removing dairy digesters from the LCFS after 2030 and/or limiting credit periods for dairy-digester projects will unnecessarily limit dairy farmers' options to voluntarily participate in the SLCP reduction requirements. Even scoping such proposals into the 2023 rulemaking risks sending chilling signals to California dairy digester development in 2023. Digester development has served as a model of success, and at this important juncture, CARB and stakeholders should ask themselves why to even consider a change in course as significant as an exclusion in the first place. The chief complaint about dairy digester development seems to be that the carbon intensity ("CI") score is too high. While it is true that dairies digester projects have favorable CI scores, these determinations are made through a robust and well-vetted emissions model (GREET) and are high because dairy manure is a potent source of fugitive GHG emissions. Unlike other alternative fuels like renewable diesel, dairy biogas is not the main driver in the growth in credit bank. Its CI score is evidence of the relative significance and importance of the methane emission reductions attributable to dairy digesters.

Concerns about environmental conditions in the San Joaquin Valley are also not a reason to exclude dairy projects. Dairy Cares is fully participating in the State's efforts to resolve long-standing concerns with environmental conditions which are being addressed by the agencies with jurisdiction in these matters, such as the State Water Resources Control Board. Exclusion from the LCFS is not the solution. Dairy Cares applauds CARB for not conflating the effect of digester projects with pre-existing environmental conditions. Responsibly-developed dairy digester projects do not exacerbate existing environmental conditions as suggested by certain anti-dairy activists in the pre-rulemaking process. Through numerous comments to CARB, Dairy Cares has explained how dairy digester projects can drive investments in mitigating existing environmental conditions, such as lining previously unlined lagoons, and reducing emissions from heavy-duty freight.

In sum, dairy digester participation has not and will not lead to the adverse externalities in the LCFS program. There is no rational basis for excluding in-state dairy digester projects in favor of other fuel pathways. CARB should allow digester projects to participate in the program indefinitely, recognizing that dairy biomethane can evolve into electricity and hydrogen for zero-emission vehicles, including heavy-duty trucks.

There is much more work to be done, and the decision about crediting periods is an integral question affecting how and whether that work will get done. The dairies that still require digester investment are generally smaller and mid-sized compared to the larger clusters that have generally been the subject of fuel pathways to date. Smaller dairies require a longer period of time for the dairy farmer and/or digester developer to recoup the investment needed for a new digester project, including cleaning and upgrading facilities and pipeline infrastructure. A guaranteed initial 10-year crediting period may be too short to justify new projects. New small digester projects need even longer financial support since these projects often require a 20-year business model with defined plans to cover ongoing operational and maintenance costs over a 20-30 year period.

CARB should continue to ensure a 10-year crediting period and afford an opportunity for pathway holders to prove the need for a second 10-year crediting period. Assuming credit prices remain relatively low and most of the future projects will be at smaller dairies, the ability to seek an additional crediting period for all projects may be necessary to facilitate the long-term operation of existing projects and financing of new projects. Ongoing operations and maintenance costs will require additional time to recoup these costs. Opportunities for additional crediting periods will enable dairies to reliably operate digester equipment, thereby sustaining annual emission reductions. The option for a second period will also help facilitate up-front financing needed for smaller dairy digester projects.

An application process for an additional crediting period would also adhere to the LCFS-related provisions in the statutes enacted in Assembly Bill 32 and SB 1383. As explained in prior comments, the California Health and Safety Code directs evaluation of cost-effective reductions and also requires minimization of leakage risks. Ongoing attrition and consolidation in California's dairy sector is evidence of leakage risk. But limiting the voluntary emission reduction tools such as the LCFS will, in and of itself, exacerbate leakage risks for California's dairy farms under the SB 1383 emission reduction requirements. By not having access to incentive-based, emission reduction tools and instead switching to command-and-control mechanisms, the State's policies would hurt local economies, the majority of which are in the disadvantaged communities the State has identified as priorities.

Finally, an optional application process is consistent with the requirements for long-term certainty related to the LCFS program. California Health and Safety Code Section 39730.7(d)(1)(B) provides:

> The state board shall develop a pilot financial mechanism to reduce the economic uncertainty associated with the value of environmental

> credits, including credits pursuant to the Low-Carbon Fuel Standard regulations (Subarticle 7 (commencing with Section 95480) of Title 17 of the California Code of Regulations) from dairy-related projects producing low-carbon transportation fuels. The state board shall make recommendations to the Legislature for expanding this mechanism to other sources of biogas.

The California Health and Safety Code further contemplates the eligibility of projects for an extension of credits after the first 10 years in Section 39730.7(e).

CARB released a staff concept paper for the pilot financial mechanism in 2018, but has yet to implement any sort of financial mechanism specific to dairy-related projects, as anticipated by Section 39730.7(d)(1)(B), which states that CARB "shall" implement that statutory requirement. An application process would provide a start to comporting with this statutory provision and would also provide a starting point for CARB to better understand the relative need for long-term financial certainty for dairy projects. It is important that dairy farmers have the certainty they need so that they and the local economies they support can be part of the successful achievement of the State's SLCP reduction targets. This mechanism is a rational way to provide additional certainty.

4. **CARB Should Adjust the Overall Carbon Intensity Targets for the LCFS Program to 35% by 2030.**

Dairy Cares supports CARB's efforts to provide near-term price support for LCFS credits and update the LCFS program to address growing credit banks. While the growth of alternative fuels production under the program should be counted as a programmatic success, Dairy Cares is nevertheless concerned that growing credit banks and the corresponding effect on credit prices will jeopardize the ability of program participants to attract longer-term financing. As discussed in Section 3 of these comments, long term financing is particularly important to the achievement of SLCP reductions in California's dairy sector.

Dairy Cares supports a reduction in the CI targets for the LCFS program to 35% by 2030. CARB should also develop a regulatory mechanism in the 2023 Rulemaking that thereafter enables the Executive Officer to make year-to-year adjustments in the overall carbon intensity targets to help build in a price floor. Such a mechanism would effectively create a more predictable price structure within the LCFS. Dairy Cares proposes that CARB's Executive Officer have explicit authority to adjust CI targets under certain pre-defined conditions and according to a new formula in the regulation. The formula would account for any annual period where credit bank averages reach a specified volume in excess of the annual, aggregate deficit obligation.

This would allow the agency to avoid going through a cumbersome rulemaking every time credit balances accumulate impacting credit prices, as they have in the last year. The recent changes in LCFS credit prices and the direct correlation to credit bank volumes provide a useful benchmark for the correlation of credit volumes and market behavior. We believe the observed credit banks over the 2021-22 period could provide the benchmark from which CARB would develop a formula that leads to the Executive Officer decreasing the next year's carbon intensity. For example, if the average bank volume is twice the annual deficit obligation, the Executive Officer would automatically reduce the CI by a specified percentage. We believe the very presence of such a mechanism would provide greater confidence to the market and help financing for projects that rely on LCFS revenue over a longer period of time (e.g., smaller dairy digester projects).

CONCLUSION

Dairy Cares appreciates CARB staff's extensive efforts to lead a robust stakeholder process, while at the same time implementing the existing LCFS Regulation. We appreciate the ability to participate in this pre-rulemaking process and offer our perspective on the need to achieve the State's SLCP targets in conjunction with this important program. We cannot underscore enough both the importance of providing clear, long-term signals to dairy farmers concerning their role in this program, and the State's commitment to supporting dairy farmers and the local economies in which they operate as California dairy farms fulfill their role in meeting the State's world-leading SLCP targets.