

October 22, 2024

Matt Botill California Air Resources Board 1001 | Street Sacramento, CA 95814

#### RE: AMP AMERICAS COMMENTS ON THE AUGUST 22<sup>ND</sup> CALIFORNIA DAIRY SECTOR WORKSHOP

Dear Mr. Botill:

On behalf of Amp Americas ("Amp"), a leader in the dairy digester and renewable natural gas ("RNG") sector, we appreciate the opportunity to submit comments on the August 22<sup>nd</sup> California Dairy Sector Workshop. Amp appreciates the California Air Resources Board's ("CARB's") ongoing efforts to mitigate methane ("CH<sub>4</sub>") and other potent short-lived climate pollutant ("SLCP") emissions, which are among the most important near-term actions to mitigate the worst impacts of climate change.

CARB has developed a successful model for addressing methane emissions from the dairy sector, leveraging the State's pioneering Low Carbon Fuel Standard ("LCFS") and its unique lifecycle emissions accounting framework. This framework values the full range of emissions reductions associated with a fuel pathway, including avoided methane emissions from dairy digesters, which has allowed the industry to scale and deliver significant emissions reductions, putting the dairy sector and California on track to meet its methane emission reduction goals pursuant to Senate Bill ("SB") 1383 (2016, Lara)<sup>1</sup>. We urge the state to continue along this successful path, which can provide a model for other states and jurisdictions to follow.

We especially appreciate and recognize the deep research effort undertaken by CARB and presented at the workshop to address concerns from some stakeholders associated with efforts to reduce methane at dairies. We support the findings presented at the workshop and agree that California's leading SLCP efforts are not contributing to consolidation of the dairy industry.

#### **ABOUT AMP**

Founded in 2011, Amp develops, owns, and operates RNG facilities that convert dairy waste into renewable energy. Over our history, Amp's projects have prevented over 2 million metric tons of carbon equivalent emissions, and we plan to rapidly expand our impact over the next several years.

As a pioneer in the dairy RNG industry, Amp registered the first 5 dairy RNG-to-CNG pathways in California's LCFS program, and we were the RNG supplier for the first 11 dairy RNG-to-hydrogen pathways. Our experience developing, operating, and reporting on these and other assets gives us a unique perspective on the impact CARB policy has on investment and project development activity related to low carbon fuels. Our projects and resulting methane and carbon dioxide reductions have

<sup>&</sup>lt;sup>1</sup> <u>https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill\_id=201520160SB1383</u>



been made possible by CARB's leadership in decarbonizing transportation, and we encourage CARB to continue to support the technology-neutral, performance-based policy framework that has made the LCFS so unique and successful.

### CALIFORNIA HAS DEVELOPED A SUCCESSFUL MODEL TO REDUCE METHANE FROM ALL SOURCES, INCLUDING DAIRY

Methane is a potent greenhouse gas ("GHG"), with a global warming potential over 80 times greater than carbon dioxide (" $CO_2$ ") over a 20-year period, and it is responsible for an estimated 25-30% of current warming effects. However, it is also short-lived in the atmosphere – existing for about a decade, compared to over a century for  $CO_2$  and other long-lived gasses – which means that reducing methane emissions in the near-term presents a tremendous opportunity to rapidly reduce the impacts of climate change and may be the most important action we can take to do so.

California has been at the forefront of methane mitigation and effective policy development to reduce methane from all sectors and in line with state and global climate goals. As described in the workshop, California has a comprehensive framework for reducing methane emissions, which includes research, regulation in certain cases, grants and loans, and environmental crediting. Not all sectors can be approached in the same way – especially for sectors like dairy where emissions leakage to other states is a prominent concern – which is why California's multi-pronged approach has been truly effective in creating a model for others to follow.

#### AVOIDED METHANE CREDITING IS CRITICAL TO ACHIEVING CALIFORNIA'S CLIMATE GOALS

The LCFS is one of the world's most powerful programs for achieving methane reductions, especially from the agricultural sector. It has positioned California as a leader in this effort, resulting in substantial in-state emissions reductions and incentivizing the modernization and sustainability of the critical agricultural sector. A large part of this success is tied to avoided methane crediting as part of lifecycle GHG emissions accounting for biomethane pathways. This accounting is both scientifically accurate and has been proven successful at supporting project development and significant methane reductions. CARB should maintain its current practice of accounting for avoided methane emissions associated with projects to avoid disrupting the market and ongoing project development and operation.

Prior to the LCFS program, just a handful of digesters had been developed, and many of those eventually shut down due to high costs and insufficient revenue. Methane emissions from the agricultural sector continued largely unabated. Following CARB's SLCP Strategy and the addition of avoided methane crediting in the LCFS, however, projects have rapidly developed, leading to significant methane and carbon dioxide emissions reductions. The current approach is working, as demonstrated in this



workshop, previous CARB workshops and reports,<sup>2,3,4</sup> and external research.<sup>5</sup> In particular, findings from a recent analysis by ERA Economics finds that, "Without LCFS credits digesters are not financially viable and would be abandoned."<sup>6</sup>

As CARB moves forward with its ongoing evaluation of the dairy industry, it will be critical to avoid disrupting this successful model. CARB should ensure the state remains a successful model for decarbonization that can spread to other jurisdictions and provide a model for addressing climate change, rather than a cautionary tale that could take climate progress backwards. Regulation would drive many dairies to relocate to neighboring states with less stringent environmental regulations and associated costs.

Such a shift would have severe consequences for methane management. When dairies relocate to other states that do not have equivalent methane capture infrastructure or policies in place, methane emissions from manure management may go unchecked. This would result in increased methane leakage. Additionally, the carbon footprint of transporting dairy products back into California would further exacerbate the environmental impact.

Preventing the offshoring of methane emissions is crucial to maintaining California's climate leadership and achieving real, global reductions in SLCPs. The state must work with California's dairies to support their continued effort to modernize sustainably, instead of adding pressure to an increasingly challenging market. CARB should avoid changing its successful model so that it can continue achieving methane emissions reductions from California's dairy sector.

# DIGESTERS AND AVOIDED METHANE CREDITING UNDER THE LCFS ARE NOT DRIVING CONSOLIDATION AT DAIRIES

We appreciate CARB's deep dive effort to address claims that the LCFS is driving consolidation in the dairy industry, through development of the California Dairy and Livestock Database ("CADD"). This is a detailed, novel and impressive tool, developed at considerable expense in terms of staff time and research. CARB deserves credit for developing perhaps the most detailed tool available to fully evaluate stakeholder concerns regarding the state's approach to reducing dairy methane emissions.

We support the detailed efforts and findings of the analysis, which aligns with our experience in the market and various other research efforts exploring the topic. The dairy industry, due to a wide array of market factors, has been consolidating for decades. Larger dairies are more likely to succeed, or simply

https://onlinelibrary.wiley.com/doi/10.1111/gcbb.13101

<sup>&</sup>lt;sup>2</sup> https://ww2.arb.ca.gov/sites/default/files/2020-06/webinar\_Dairy\_and%20Livestock\_Sector\_05212020.pdf

<sup>&</sup>lt;sup>3</sup> California Air Resources Board, Analysis of Progress Toward Achieving the 2030 Dairy and Livestock Sector Methane Emissions Target, p. 22, March 2022, <u>https://ww2.arb.ca.gov/sites/default/files/2022-03/final-dairy-livestock-SB1383-analysis.pdf</u>

<sup>&</sup>lt;sup>4</sup> California Air Resources Board, Petition for Rulemaking to Regulate Methane and Other Air Pollutants from California Livestock, <u>https://ww2.arb.ca.gov/sites/default/files/2024-05/2024-05-30-CARB-CDFA-Response-to-Dairy-Rulemaking-Petition.pdf</u>

<sup>&</sup>lt;sup>5</sup> UC Davis, The Good, The Bad, and the Future: Systematic Review Identifies Best Use of Biomass to Meet Air Quality and Climate Policies in California, September 2023,

<sup>&</sup>lt;sup>6</sup> https://calcattlecouncil.org/wp-content/uploads/2024/10/2.-ERA\_CCC\_FinalReport\_Sept2024.pdf



survive, in an industry that is highly competitive and volatile. They are also the most likely to have the capital and/or longer-term commitment to remaining in the industry that is necessary to support capital intensive investments in digesters, as well as the economies of scale to help make a digester economically feasible. However, digesters themselves are not driving consolidation.

CARB's findings are not unique, and are consistent with other research on the issue. A recent study by ERA Economics conducted for the California Cattle Council, "Economic Analysis of California Dairy Consolidation, Attrition, and Policy Leakage" found that there is no evidence that adoption of dairy digesters is causing consolidation to larger dairies and that the current framework is working toward achieving the state's methane reduction target.<sup>7</sup>

# ADDITIONAL OPPORTUNITIES AVAILABLE TO SUPPORT SUSTAINABLE AGRICULTURE THROUGH DAIRY DIGESTERS

While state's current approach has been effective at mitigating methane, Amp fully supports other sustainability efforts at dairies, provided it is economically and environmentally sustainable. For example, the California Department of Food and Agriculture ("CDFA") has spearheaded several initiatives aimed at promoting soil health, reducing GHG emissions, and increasing the adoption of organic farming practices, one of which being the Healthy Soils Program. The Healthy Soils Program incentivizes farmers to implement soil management practices that enhance carbon sequestration, reduce chemical inputs, and promote the use of organic amendments like compost and manure.

Dairy digesters can also support development of new renewable and organic fertilizer products, which can support the State's healthy soils and organic agriculture goals. We would be happy to participate in discussions for how the state can further support development of projects like these and increase access to renewable and organic fertilizers in a manner that aligns with SB 1383 principles around technological and economic feasibility, cost effectiveness, and avoiding emissions leakage.

### CONCLUSION

Thank you for hosting this workshop and the detailed effort to evaluate unfounded claims regarding the impacts of dairy digesters and the LCFS on consolidation in the dairy industry. Amp appreciates CARB's thorough effort to answer these questions and fully supports the successful approach CARB is pursuing to reduce methane from the dairy sector and achieve the State's SLCP reduction goals. We believe that the findings and scientific methods deployed provide an accurate depiction of the state of California's dairy industry and the opportunities within it. Amp is interested in continuing to work with the state to support these efforts and help California reduce methane emissions while maintaining California's role as a leading dairy and agriculture state.

Sincerely,

Cassandra Farrant

Cassandra Farrant Head of Environmental Credit Compliance Amp Americas

<sup>&</sup>lt;sup>7</sup> https://calcattlecouncil.org/wp-content/uploads/2024/10/2.-ERA\_CCC\_FinalReport\_Sept2024.pdf

