



September 18, 2022

The Honorable Liane Randolph, Chair  
California Air Resources Board  
1001 I Street  
Sacramento, CA 95814

**Re: Newtrient Comments Regarding CARB August 18th, 2nd Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard**

Dear Chair Randolph:

Newtrient LLC respectfully offers these comments to the California Air Resources Board (CARB) in response to the CARB August 18th, 2nd Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard.

Newtrient was founded by 12 leading milk cooperatives representing nearly 20,000 dairy farmers producing approximately half of the nation's milk supply. Newtrient brings together farmers, industry associations, researchers, investors, technology leaders and product developers to make informed decisions about manure management opportunities. Newtrient's work includes advancing manure-based management and product technologies and bringing public and private sector partners together to advance environmental asset trading opportunities. Newtrient understands dairies, markets, practices, and technologies, and brings entities together for success in reducing the environmental impact of the dairy industry.

We applaud CARB's leadership on climate change and are pleased to collaborate in the discussions regarding the potential changes to the Low Carbon Fuel Standard (LCFS). The dairy industry and the family farms of California and nationwide have embraced the challenge of reducing their carbon footprint and the biogas systems that they have and are in the process of installing are part of the solution to the challenges CARB seeks to address.

Two programs directed by the California Department of Food and Agriculture have been vital to the progress California has made. According to the 2022 CARB Mid-Year Data Update report on the cumulative progress of the California Climate Investments Program as of May 31, 2022, (<https://www.caclimateinvestments.ca.gov/annual-report>)

the Dairy Digester Research and Development Program and the Alternative Manure Management Program have received a total of \$263.5 million in funding and have reduced 22.1 million MTCO<sub>2e</sub>. The funding for these programs represents 1.84% of the California Climate Investments program as of May 31, 2022, but the GHG reductions from these two programs represent 28.11% of the total for all California Climate Investments programs.



10255 West Higgins Rd, Suite 900 Rosemont, IL 60018-5616  
[www.newtrient.com](http://www.newtrient.com) [info@newtrient.com](mailto:info@newtrient.com) 847-627-3855



There are 73 subprograms listed in the 2022 CARB Mid-Year Data Update report on the cumulative progress of the California Climate Investments Program as of May 31, 2022. Only one of these subprograms has produced a GHG reduction at a cost of less than \$10 per MTCO<sub>2e</sub>, that is the Dairy Digester Research and Development Program. This program has reduced the largest GHG reductions of any single subprogram.

### **Regarding the Changes to the Low Carbon Fuel Standard Presented at the Workshop:**

Newtrient understands and supports CARB in its efforts to significantly reduce transportation emissions to reach carbon neutrality and improve air quality for all Californians. Newtrient also agrees that the LCFS program is a key mechanism for reducing and replacing fossil fuels, accelerating investment in low-carbon fuel production, and supporting the associated infrastructure buildout, and finally, as stated by Matthew Botill, Chief of the Industrial Strategies Division, in the opening remarks of the workshop, Newtrient agrees that long-term market certainty, beyond 2030, is needed to support the transition to renewable and sustainable energy production.

The following comments are related to the specific topics and comments shared during the workshops. Newtrient would like to emphasize its position on the following topics from the first workshop:

- Newtrient supports an acceleration of reductions in Carbon Intensity targets to the proposed 30%-by-2030 and believes that providing five-year interim CI targets between 2030 and 2045 would be effective in helping to stabilize the LCFS credit markets.
- Newtrient believes that continued support of anaerobic digestion technologies that convert waste to energy is necessary to achieve the climate goals of California and funding for these systems should be given the highest priority as they provide the double benefit of reducing emissions and replacing fossil fuels. Additionally, renewable natural gas can be used as the precursor to more advanced fuels like dimethyl ether, methanol, and hydrogen, that have the potential to be keys in the decarbonization of the transportation sector going forward.
- Newtrient would not recommend that CARB set an upper limit on biofuel volumes from lipid-based feedstocks at this time but encourages staff to evaluate the need for adjustments and limits to avoid deforestation, land conversion, and adverse food supply impacts. Incentives that promote the conversion of waste to energy and increase the adoption of practices that have the potential to reduce environmental impacts at the same time as replacing fossil fuels should be considered as a primary mechanism for reducing the impact of lipid based feedstocks.
- Supporting equity in the LCFS is important to CARB and is equally important to the dairy industry. Providing a technologically feasible, cost effective and equity-focused transition to a carbon neutral economy, improving the environment, and living conditions for everyone in California, and specifically addressing the health and safety issues of those in the agricultural communities where the dairies are located, is a shared goal of everyone involved.



- To further enhance the LCFS program, Newtrient would support establishing a biogas to electric vehicle (EV) pathway, similar to the book-and-claim processes in places for compressed natural gas (CNG). Establishing a book-and-claim pathway for biogas would significantly increase the prospect of biogas as an alternative fuel, as well as improve the economics of the biogas market. For instance, rather than limiting dairy biogas participation to those with a direct pipeline connection to the San Joaquin Valley, all LCFS participants would be able to participate in California's growing dairy biogas market. As seen in Dairy Cares latest California Dairy Digester Development update, 182 dairy farms are planned to be included in the "hub and spoke" pipeline model. However, an additional 35 dairy digester projects under development are not part of the hub and spoke clusters. CARB should consider allowing biogas book-and-claim in the LCFS program to unlock the full potential of California's biogas market. Industry estimates indicate that biogas from California's dairy farms has the potential to generate 300MW+ of power, equivalent to powering approximately 600,000 EVs, each traveling 15,000 miles per year. When considering the nationwide market, the potential is even greater.

Related to the specific topics and comments shared during the August 18th workshop. Newtrient would like to emphasize its position on the following:

- Newtrient strongly supports the streamlining of implementation of pathway requests. During the last workshop, stakeholders producing RNG from dairy manure commented that the pathway certification process takes too long, causing them to forego LCFS credits they would be entitled to if their pathways were certified on a timely basis. That delay imperils the ongoing incentivization of decarbonization of the transportation pool and we urge CARB to employ additional staff resources to address this bottleneck on an ongoing basis.
- Newtrient agrees that the recommendation to make the Tier 1 and Tier 2 pathway deemed complete date is a reasonable way to reduce confusion and to ensure consistency while permitting a detailed review of applications without additional pressure to complete the process before the end of a quarter. We believe that the true-up of temporary pathways should be implemented jointly if this recommendation is accepted.
- Newtrient supports the concept of a full credit true-up for all pathways that receive credits below the demonstrated Carbon Intensity (CI) value of their project once the actual operational CI score is established. Allowing reporting entities to generate credits based on actual operational CIs after certification of Tier 1 or Tier 2 pathways is the responsible way to ensure that project revenue is not unfairly withheld simply due to the need to establish the CI score. This will go a long way toward alleviating concerns with delays in certification. The concept should be extended to any time a project receives less than the actual operational CI score, hence the support of a "full credit true-up". We do recognize that there may be a limited time period for this true-up to be requested.
- The introduction of a simplified Tier 1 Hydrogen Calculator is another recommendation that Newtrient supports. We do not support the comments made by anti-animal

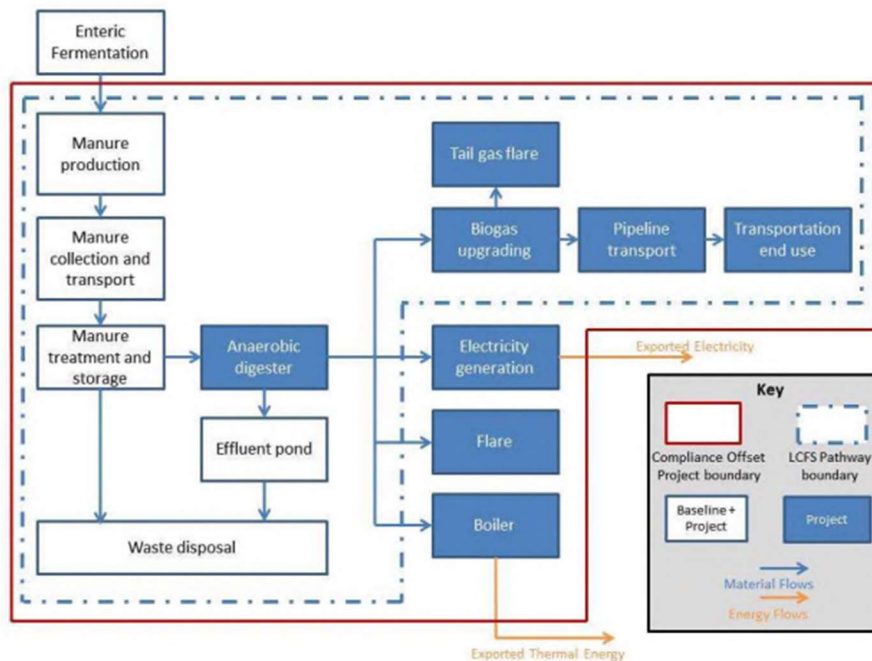
agriculture activists that it be limited to solar and wind powered electrolysis systems nor the idea that the hydrogen only be allowed in non-combustion applications.

- Newtrient would also like to weigh in with regards to updating the Emissions Factors and Life Cycle inventory as part the work for this rule and on the comments of Jamie Katz of the Leadership Council for Justice and Accountability made regarding review of animal agriculture anaerobic digestion calculations.

The ultra-low carbon indices within the dairy AD/Biogas sector is real and well-vetted within the national laboratory-developed Greenhouse Gases, Regulated Emissions, and Energy Use in Technologies (GREET) model. As such, anyone who values science must appreciate their role in meeting GHG and climate goals, and not selectively replace them with non-scientific reasoning.

The low carbon intensity (CI) of these projects arises from a combination of well-to-wheels carbon gains plus the methane offsets from baseline methane emissions from manure management, storage and application. Methane offsets from baseline emissions are a legitimate accounting practice as baseline, pre-AD/biogas systems emissions exist, and are largely removed through the installation of the AD/biogas system.

CARB has carefully and correctly set the boundaries of animal agriculture and clearly defines the baseline scenario of California dairies by providing a diagram of the LCFS boundaries and indicating the project related components in the Compliance Offset Protocol for Livestock Projects Capturing and Destroying Methane from Manure Management Systems Adopted: November 14, 2014.



**Figure 1: System Boundaries for Livestock Protocol and LCFS Manure-to-RNG Pathways**



Not only this diagram, but also Table 4.1. “Description of all GHG Sources, GHG Sinks, and GHG Reservoirs” within the document lists the sources sinks and reservoirs for livestock projects, indicating which gases are included or excluded from a project. The content of the list makes it clear that CARB did consider that there are feed production and enteric emissions from dairy operations, but that these were outside the boundary of the livestock protocol because they are part of the natural emissions from the dairy operation which are covered under the carbon footprint of the milk and meat produced. Manure is not a “product or by-product” of the dairy operation but is a material which is created as part of the production and not made for its own value.

Anti-agriculture activists often misrepresent the dairy industry and, as in the case of these comments, misrepresent the benefits of the use of anaerobic digestion (AD) and renewable energy production on dairy farms. By calling the scientifically supported GHG reductions achieved by AD systems “artificially inflated”, they show that they are not willing to discuss the science and the significant impact of AD on reducing GHG emissions from farms, but instead label and denigrate these projects with their own unscientific opinions.

## **Conclusions:**

In conclusion, Newtrient would like to reiterate its previous comments regarding the family dairies of California and their aim to be good stewards of the environment and citizens of the community. These hardworking, well-meaning families have demonstrated their willingness to improve the environment by adopting AD/biogas systems and alternative manure management programs to improve their existing stewardship.

The dairy industry is incredibly important to California. The evolution of dairy farming in California has largely resulted in improved environmental sustainability—45 percent less carbon emissions, 88 percent less water used, and 89 percent less land used per gallon of milk produced over the past 50-plus years. Producing more milk with fewer cows is good for the environment. California leads the nation in climate-smart dairy farming and as originally posted by Dairy Cares, here are seven reasons why keeping cows in California is good for people and the planet:

1. Dairy is a huge economic contributor.

Dairy is California’s most valuable agricultural commodity, and milk production helps generate an estimated \$57.7 billion in annual dairy-related economic activity. The California dairy sector provides 180,000 year-round, high-quality jobs. Many of these jobs are in the San Joaquin Valley and are a critical source of employment to disadvantaged communities. Moreover, development of dairy methane reduction projects is creating hundreds of local construction jobs and ongoing operations and maintenance employment.

2. California dairy farms and processors are leaders in clean energy.



California's dairy sector is at the forefront of a national dairy commitment to achieve greenhouse gas neutrality by 2050. Meeting this national dairy goal will require significant investments in energy efficiency and clean energy—both within the dairy and utility sectors. More than 150 California dairy farms have installed on-farm solar energy. More than 200 California dairy farms have digester projects either operating or in development.

3. Dairy farming has a symbiotic relationship with California's other agricultural pursuits.

Up to 40% of feed ingredients used on California dairies are agricultural byproducts, such as almond hulls, grape pomace, and citrus pulp. By upcycling locally available leftovers that would otherwise go to waste, dairy farms are reducing the use of water, energy, and fossil fuels needed to grow feed, while reducing what's sent to landfills. In 2020, researchers at UC Davis analyzed the economic and environmental sustainability implications of feeding agricultural byproducts to California dairy cows. They determined that this practice reduces the amount of water needed to grow feed by as much as 1.3 trillion gallons.

4. The dairy community supports nutrition education and food access.

Milk and dairy products play an important role as one of the most cost-effective sources of under-consumed nutrients—including potassium, calcium, and vitamin D. By working directly with educators, foodservice professionals, and health and wellness providers, the California dairy community—via the Dairy Council of California—supports nutrition education and food access for children and families. The dairy community also helps feed millions of Americans each day by supporting federal nutrition assistance programs.

5. Dairy nourishes and enriches a vibrant culture.

California is ranked first in the U.S. in the production of milk, butter, ice cream and nonfat dry milk, and second in cheese and yogurt production. The state produces more than 250 different cheeses, including 25 varieties of Hispanic-style cheeses. California dairy products and ingredients are consumed in ways that celebrate heritage, contribute to family traditions, promote health and wellness, and enhance the enjoyment of food and beverages.

6. The California dairy community gives back and makes a difference.

Dairy organizations as well as dairy farm families and employees donate time, money, and energy to give back and make a difference. This includes coordinating canned food and toy drives, providing milk and snacks to first responders, and donating to local fundraisers and community projects.

7. California dairy farmers are among the most efficient producers of milk in the world.

Attaining California's current level of production efficiency in all dairy regions worldwide would reduce total global greenhouse gas emissions by as much as 1.73 percent. For perspective, reducing all of California's greenhouse gas emissions to zero would only reduce total global emissions by less than 1 percent.

For all these reasons and more, California's dairy farm families are demonstrating every day that they are committed to continuing their long tradition of providing sustainable nutrition to



millions of people, while improving their efforts to protect the planet and strengthen our state's economy.

In closing, Newtrient would like to thank CARB for the opportunity to comment and for the excellent work that it is doing in leading the way in reducing the impact of short-lived climate pollutants for California and the entire nation. We look forward to working with CARB, the California Dairy Industry, and the State of California to address the important environmental, economic, and social issues presented by climate change.

Sincerely,

Mark Stoermann  
Chief Operating Officer  
Newtrient LLC