



June 24, 2022

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

Re: Newtrient Comments Regarding CARB Draft 2022 Climate Change Scoping Plan

Dear Chair Randolph:

Newtrient LLC respectfully offers these comments to the California Air Resources Board (CARB) in response to the CARB Draft 2022 Climate Change Scoping Plan.

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 the development of the Scoping Plan has been such a thorough process, as we view biogas as a vital part of meeting our current and future climate-based challenges and priorities. At their core, biogas systems protect our air, water, and soil by recycling organic waste into renewable energy and soil products, while reducing greenhouse gas (GHG) emissions. Biogas systems are part of the solution to the challenges CARB seeks to address.

Support for Proposed Scenario:

Newtrient has carefully reviewed the Alternatives included in the Draft Scoping Plan, and strongly supports the Proposed Scenario (modeling scenario Alt 3) with one exception. Newtrient does not support the strategy of accelerating demand for dairy and livestock product substitutes such as plant-based or cell-cultured dairy and livestock products to achieve reductions in animal populations. In all other respects, the Proposed Scenario allows for the capture and use of biogas from dairies to meet the methane emissions goals of SB 1383 and maintains the footprint of agriculture in California.

In contrast, Alternative 1 will produce less energy to meet the state's needs, will likely cause significant leakage or result in a significant reduction in the size and number of dairies in the





state and devastate the number one commodity product produced in California, one which represented approximately 15 percent of the state's farm and ranch cash receipts in 2020.ⁱ

Alternative 2, although a significant improvement over alternative 1, in our opinion, does not do enough to protect the economic health of the California Dairy Industry. By accelerating the timeline for reaching carbon neutrality to 2035 and putting downward pressure on the states economy because of the aggressive deployment of a full suite of technology and energy options, including engineered carbon removal, this alternative slows both job and economic growth.

Alternative 4 does not reflect the urgent need for significant action to address climate issues and does not put the state on a path to achieve the 80 percent reduction in GHGs below 1990 levels as called for in Executive Order S-3-05 by 2050.

Alternative 1: Specific Comments

According to the May 10, 2022, Draft 2022 Scoping Planⁱⁱ:

Alternative 1 reflects many of the priorities shared by the [Environmental Justice] EJ Advisory Committee. No new digesters or landfill dairy capture would be supported; instead, there would need for an overall reduction in herd size over time and more composting. Oil and gas fugitive methane emissions would be nearly eliminated as combustion is phased out. Hard to electrify sectors such as stone, clay, glass, and cement may need to close unless some amount of [carbon capture and storage] CCS is allowed with some combustion technology to meet their energy needs. If demand for those goods persists, there is a high likelihood of leakage for those sectors. To ensure no transportation fossil fuel combustion in 2035, the state may need to establish programs to buy back vehicles before end of life and help ensure low-income households have access to [Zero Emissions Vehicles ZEV's and any required charging access. There would be no petroleum supply to support any internal combustion vehicles after 2035. Similar buy-back programs may need to be established for replacing gas appliances before their end of life because of no availability of gas. Oil and gas extraction and refining operations would be phased out by 2035 as demand for these fuels would also be forced to zero in 2035.

The impact of implementing Alternative 1 would be nothing short of devastating to California's dairy industry. Reducing methane emissions from dairies and livestock facilities is critical to California achieving its climate goals. We continue to believe that one of the key methods for CARB to ensure reduced methane emissions is for CARB to continue to incentivize the development of anaerobic digesters (AD) on dairy and livestock facilities as well as support the use of biomethane from these systems in the Low Carbon Fuel Standard (LCFS) and other programs.

Anaerobic digesters and related technologies are critical to reaching California's climate goals, but continued support of anaerobic digesters on dairies and other livestock operations is also required by multiple laws in California.

Alternative 1 would clearly conflict with the following requirements of SB 1383 specific to dairy biomethane:



- The requirement that CARB “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 . . . from dairy-related projects producing low-carbon transportation fuels.”ⁱⁱⁱ
- The requirement to adopt a mechanism to provide LCFS credits for 10 years to dairy biomethane producers that begin production before the adoption of dairy methane regulations.^{iv}
- The requirement that the California Energy Commission recommend measures to increase the production and use of biomethane, with priority going to “fuels with the greatest greenhouse gas emissions benefits, including the consideration of carbon intensity and reduction in short-lived climate pollutants.”^v

Alternative 1 would also conflict with other California laws calling for in-state biomethane production including:

- AB 1900 (Gatto, 2012) requires that “the commission shall adopt policies and programs that promote the in-state production and distribution of biomethane. The policies and programs shall facilitate the development of a variety of sources of in-state biomethane.”^{vi}
- SB 1122 (Rubio, 2012) requires the California Public Utilities Commission (CPUC) to “encourage gas and electrical corporations to develop and offer programs and services to facilitate development of in-state biogas for a broad range of purposes.”^{vii}
- AB 2313 (Williams, 2016) requires the CPUC to “consider options to increase in-state biomethane production and use.”^{viii}
- SB 840 (Budget, 2016) states that for “California to meet its goals for reducing emissions of greenhouse gases and short-lived climate pollutants, the state must . . . increase the production and distribution of renewable and low-carbon gas supplies.”^{ix}
- SB 1383 (Lara, 2016) requires state agencies to “consider and, as appropriate, adopt policies and incentives to significantly increase the sustainable production and use of renewable gas, including biomethane and biogas.”^x
- SB 1383 also requires the Commission to “consider additional policies to support the development and use in the state of renewable gas, including biomethane and biogas, that reduce short-lived climate pollutants in the state.”^{xi}
- The requirement that the CPUC consider “adopting a biomethane procurement program focused on in-state and delivered biomethane.”^{xii}

Not only would adopting Alternative 1 be bad policy and ignore the progress already made on reducing carbon emissions, but there is simply no way to exclude dairy biomethane from the LCFS without conflicting with the unambiguous language and intent of California state law. There is also virtually no way to meet the 40% methane reduction target without dairy digesters, which are providing by far the greatest methane reductions of any programs or investments to date.^{xiii xiv}



According to a December 15, 2021 report, “Assessing California's Climate Policies—Agriculture” published by the Legislative Analyst's Office (LAO), CARB estimates that all the California Department of Food and Agriculture's (CDFA) Dairy Digester Research and Development Program (DDRDP) projects (including those funded but not yet implemented) reduces emissions at a state cost of \$9 per ton, which is one of the lowest costs-per-ton estimates among Greenhouse Gas Reduction Fund (GGRF) programs.^{xv}

The United Nations' IPCC recognizes the methane reduction potential from AD as up to 99 percent ^{xvi}, and that, along with other Waste-to-Energy technologies, if used with appropriate air emissions technology, can produce clean energy.

Alternative 2: Specific Comments

According to the May 10, 2022, Draft 2022 Scoping Plan^{xvii}:

[Alternative 2] ... reflects direction from some stakeholders and members of the Legislature to evaluate what it would take to achieve carbon neutrality by 2035 while deploying all tools available today. Unlike Alternative 1, this alternative does not exclude biomass-derived fuels or CCS. This alternative also allows for legacy combustion technology to reach a natural end of life with no need for early buyback programs, except in the case of medium- and heavy-duty vehicles. For electricity generation, all Renewable Portfolio Standard and SB 100 Zero Carbon sources are allowed. Oil and gas extraction and refining operations are phased down in line with the reduction in demand. To the extent demand persists past 2045, oil and gas extraction and refining would continue, but they are paired with CCS where applicable to avoid shutting down operations while still reducing GHG emissions.

Although Alternative 2 is an improvement over Alternative 1, the impact on California's dairy industry would still be quite significant. The accelerated timelines and the costs of adjusting to the changes required to implement CCS and retire heavy duty vehicles alone would impact dairy producers and processors and their transportation fleets.

Dairies and livestock operations are already some of the most regulated industries in the country. They are required to meet and maintain compliance with federal, state, and local regulations. Without the sustained economic assistance from CARB and CDFA programs, many of the family farms across California will be unable to afford biogas systems and will not be able to capture and reduce the methane emissions created by their farms. The addition of programs to implement and support CCS and replace heavy duty vehicles will likely impact the very programs that are contributing the most to the industries progress toward meeting the environmental goals of SB 1383. The economic value of dairy's role in a healthy, sustainable diet and its efforts to strengthen and connect the communities it serves is compromised by the stringent timetable this Alternative hopes to achieve.

Alternative 4: Specific Comments

According to the May 10, 2022, Draft 2022 Scoping Plan^{xviii}:

[Alternative 4] ... does not exclude biomass-derived fuels or CCS. This alternative also allows for legacy combustion technology to reach a natural end of life with no need for early buyback programs. For electricity generation, all Renewable Portfolio Standard and



SB 100 Zero Carbon sources are allowed. Oil and gas extraction and refining operations are phased down in line with the reduction in demand. To the extent demand persists past 2045, oil and gas extraction and refining would continue, but paired with CCS where applicable to avoid leakage and manage GHG emissions. This scenario results in the largest share of fossil fuels remaining in the economy in 2045. Also, this scenario does not achieve the 2050 80 percent reduction in GHGs below 1990 levels as called for in Executive Order S-3-05.

In Newtrient's opinion, Alternative 4 does not reflect the urgent need for significant action nor the incredible progress that has been made to address climate issues and does not put the State on a path to achieve the 80 percent reduction in GHGs below 1990 levels, as called for in Executive Order S-3-05 by 2050.

The family dairies of California always 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. Their progress is clearly demonstrated in the following:

- According to the Innovation Center for U.S. Dairy, the greenhouse gas footprint of the nation's dairy producers is less than 2 percent of the nation's total.^{xxix}
- Thanks to improvements in sustainable farming practices, U.S. dairy farmers are now using 65 percent less water and 90 percent less land to produce 60 percent more milk.^{xx}
- Thanks to improved farming practices, the carbon footprint of producing 1 gallon of milk shrunk by 19 percent between 2007 and 2017, requiring 30 percent less water and 21 percent less land.^{xxi}
- 34 dairy companies representing 75 percent of U.S. milk production have voluntarily adopted the U.S. Dairy Stewardship Commitment to help the U.S. dairy industry collectively advance, track and report progress on social responsibility areas important to consumers, customers and communities.^{xxii}
- A 2021 World Wildlife Fund analysis found that U.S. dairy farms could achieve net zero emissions in as few as 5 years if the right incentives and supportive policies are put in place. The investment would mean a return of \$1.9 million or more per farm. If even 10 percent of dairy production in the U.S. were to achieve net zero, GHG emissions could be reduced by more than 100 million tons.^{xxiii}
- A team of Virginia Tech researchers found that the removal of dairy cows from the U.S. agricultural industry would only reduce greenhouse emissions by about 0.7 percent — and it would significantly lower the available supply of essential nutrients for humans.^{xxiv}
- Dairy effectively, efficiently and affordably provides the annual protein requirements of 169 million people and the annual calcium requirements of over three-quarters of the population.^{xxv}
- In the U.S., there are 280 on-farm anaerobic digester systems used to convert manure into renewable energy. Of those, 77 percent are located on dairy farms.^{xxvi}



- 80 percent of what dairy cows consume can't be eaten by people, including byproducts of other foods like citrus pulp and almond hulls.^{xxvii}

Conclusions:

The dairy industry is incredibly important to California. As previously mentioned, in the 2020 crop year, California's top valued commodity was listed as "Dairy Products, Milk" with \$7.47 billion in sales or approximately 15 percent of the state's farm and ranch cash receipts.^{xxviii} According to "Contributions of the California Dairy Industry to the California Economy in 2018", a total of 179,900 California jobs were derived from the California dairy industry.^{xxix} In addition to these easily quantifiable statistics, less numeric but very important to the families involved, the dairy industry in California represents a stable and non-transitory workplace and thereby benefits those working in this industry and their families by supporting education and social stability in the communities where this industry is prevalent. In the important race to reduce the impact of climate change we must be careful not to negatively impact this essential and iconic California dairy farms.

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 strongly support the Proposed Scenario (modeling scenario Alt 3) recommended by CARB staff with one exception. Newtrient does not support the strategy of accelerating demand for dairy and livestock product substitutes such as plant-based or cell-cultured dairy and livestock products to achieve reductions in animal populations. 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,

A handwritten signature in black ink that reads "Mark Stoermann". The signature is written in a cursive style and is followed by a long horizontal line that extends to the right.

Mark Stoermann
Chief Operating Officer
Newtrient LLC

References

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- ⁱⁱ CARB. 2022. DRAFT 2022 SCOPING PLAN UPDATE MAY 10, 2022. <https://ww2.arb.ca.gov/sites/default/files/2022-05/2022-draft-sp.pdf>
- ⁱⁱⁱ Health & Safety Code section 39730.7(d)(1)(B).
- ^{iv} Health & Safety Code section 39730.7(e).
- ^v Health & Safety Code section 39730.8(e).
- ^{vi} AB 1900 (Gatto, 2012) adding Section 399.24(a) to the Public Utilities Code.
- ^{vii} SB 1122 (Rubio), Statutes of 2012, Chapter 612, codified at Public Utilities Code § 399.20(f)(2)(D).
- ^{viii} Public Utilities Code § 784.2.
- ^{ix} Senate Bill 840 (Budget), Statutes of 2016, SEC. 10, §§ (b) – (i).
- ^x Health and Safety Code 39730.8(c).
- ^{xi} Health and Safety Code 39730.8(d).
- ^{xii} Public Utilities code section 651(b).
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- ^{xxiii} WWF. Devine. (2021). Tackling Scope 3 Emissions and Reaching Net Zero in Dairy. <https://www.worldwildlife.org/blogs/sustainability-works/posts/tackling-scope-3-emissions-and-reaching-net-zero-in-dairy>
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