



July 14, 2021

California Air Resources Board
1001 I Street
Sacramento, CA 95814

Re: Comments on Analysis of Progress toward Achieving the 2030 Dairy and Livestock Sector Methane Emissions Target

To Whom it May Concern,

As a non-profit organization working closely with California dairies to reduce harmful greenhouse gas (GHG) emissions, Sustainable Conservation supports the goals set forth in Senate Bill 1383 (Lara, 2016) to reduce statewide methane emissions to 40 percent below 2013 levels by 2030, and to achieve equivalent reductions in the dairy and livestock sector. We also support the commitment shown by the California Air Resources Board to achieving these goals through the Analysis of Progress toward Achieving the 2030 Dairy and Livestock Sector Methane Emissions Target (Analysis). The Analysis rightly recognizes that a variety of approaches will be required to address methane emissions, as well as increased commitment of resources.

However, we believe that this report can be refined further. While the Analysis generally frames alternative manure management practices as a co-equal approach to the use of anaerobic digesters in solving the problem of methane emissions, we recommend several changes to more fully capture the true impacts of both approaches undertaken in support of SB 1383.

Sustainable Conservation recommends that the analysis be revised to more fully evaluate the role of alternative manure management practices in order to meaningfully compare these projects to anaerobic digester projects.

Specifically, we recommend the following revisions to how the analysis is conducted:

Equity in consideration of digester and non-digester practices in reducing methane emissions

The Analysis, while recognizing the importance of both alternative manure management practices and anaerobic digesters, is mostly focused on the impact of digesters. While digesters are indeed an important tool in the reduction of emissions, they are only one aspect of a wider approach that is needed to fully address GHGs generated in dairy operations.

Specific practices like pasture-based management, solid separation (weeping walls, stationary screen, vibrating screen, screw press, centrifuge, roller drum, belt press), composting, and others, provide substantial opportunities to reduce methane emissions from dairies with existing technologies and practices that most dairy producers know and have confidence in. These practices also achieve co-benefits and are feasible for a wide range of California dairies. Early

evidence suggests some of these practices and technologies rival digesters in cost-effectiveness of methane reductions (CDFA, *Dairy Subgroup 1*, 2021, https://ww2.arb.ca.gov/sites/default/files/2020-11/dsg1_final_recommendations_11-26-18.pdf).

The use of non-digester practices represents a more accessible set of options for all dairy operations to employ in reducing GHGs. Digesters are large, cost-intensive projects that not all producers can undertake. Widening the scope of state programs to include additional types of emissions-reduction projects will not only provide a more comprehensive solution to the problem, but also increase accessibility to these programs to traditionally underrepresented and under-resourced operators, who frequently do not have access to the economies of scale necessary to implement complex digester projects.

In order to gain a more complete understanding of where programs should be focusing resources and attention, this analysis should focus on the viability of non-digester projects as well. These projects can achieve multiple benefits in addition to emission reductions (such as soil health and water quality), feature quick turnaround times from funding agreement to implementation, serve as cost-effective approaches to methane emission reduction, and promote more equity in access to state assistance programs. The demand for assistance from programs like the Alternative Manure Management Program (AMMP) demonstrates the potential for utilizing non-digester approaches, in addition to digesters. The Analysis should accordingly include a more robust evaluation of the potential benefits of these approaches as well.

Clarification of 2030 emission targets is needed

There are conflicting interpretations between agencies of whether the 40% reduction in methane emissions set forth in SB 1383 are applicable to total methane emissions in the dairy industry, or specifically a 40% reduction in methane emissions related specifically to manure. This analysis should specify which interpretation is being used by the state going forward, in order to provide more clarity and a better understanding of the options being evaluated.

Analysis should be expanded to provide a more detailed review of the impact of digesters

A more complete understanding of the impact of digesters in achieving emission reductions is necessary in order to fully assess the relative priority of digester and non-digester solutions, especially considering that the draft conclusions of the Analysis include findings suggesting that digester projects tend to produce greater emission reductions. To this end, the analysis should be revised to examine more closely the following:

- *Include other sources of state funding beyond Dairy Digester Research and Development Program (DDRDP) and AMMP* – The report suggests that by evaluating these two programs, the totality of state funding efforts in methane reduction are being represented. However, the analysis should include additional state programs like the California Department of Food and Agriculture’s State Water Efficiency and Enhancement

Program, which funds practices like subsurface drip irrigation that utilizes dairy wastewater and has shown to reduce GHG emissions by 70% or more.

- *Provide specific breakdowns of funding efforts* – The analysis should include not only total funding levels associated with DDRDP, AMMP, and other programs, but also provide data related to specific resources dedicated to direct funding of projects, research, technology advancement, incentive mechanisms, permitting, and other categories.
- *Evaluate emission reductions in accordance with completed projects* – In order to fully understand the relationship between allocation of funds and reductions, the analysis should reflect how many digester projects that have received funding have been fully implemented and are operational, versus projects that have received funding but have not yet begun operation. This would provide a more accurate accounting of the rate of emission reduction achieved per dollar spent when it comes to digester projects, and a means to more accurately consider these projects in comparison to all available options.

Sustainable Conservation recognizes the value of anaerobic digesters in attaining the necessary goals set by SB 1383. However, if all of us are to complete this important mission in reducing methane emissions, we need an analysis that not only recognizes the efficacy of these digester projects, but also of all other options that dairy operators of all types and sizes can avail themselves of to be full partners in addressing climate change.

Sincerely,

Charles R. Delgado

Charles R. Delgado
Policy Director
Sustainable Conservation