

GALLO CATTLE COMPANY

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June 26, 2020

Attn: Mr. Anil Prabhu
California Air Resources Board
1001 I Street
Sacramento, CA 95814

Re: Tier 2 Pathway Application: Application No. BOO89

Dear Mr. Prabhu,

Gallo Cattle Company LP (“Gallo”) is submitting a letter responding to the public comment letter posted on June 25, 2020 from The Association of Irrigated Residents, Central California Asthma Collaborative, Food and Water Watch and Leadership Counsel for Justice and Accountability regarding the Tier 2 pathway for low-CI electricity from dairy manure and creamery wastewater derived biogas.

The following response is in regards to the groups’ four primary reasons for opposing the approval of this project. Our comments related to the letters four main “potential factual or methodological errors” in section 95488.7(d)(5)(A) are in **bold** below.

Comment No.1. *“information and data included in the application and relied upon for approval is redacted such that an independent review of the proponents’ claims and the accuracy of calculations and impacts is impossible,”*

Response:

Gallo provided the California Air Resources Board (CARB) Staff with a comprehensive list of documents and information necessary to certify a Tier 2 pathway according to sections 95488.7 and 95488.8 of the LCFS Regulation, including all required air permits relevant to the project. CARB has reviewed all data relating to this application, including the carbon intensity score (CI) which was calculated in the “Simplified CI Calculator for Biomethane from Anaerobic Digestion of Dairy and Swine Manure” posted by CARB, and confirmed the accuracy of this information in their engineering review. The project has also been thoroughly vetted by a third-party validator who is approved by CARB and approved for the validation of these projects.

All redacted information in the documents posted for public comment contains “Confidential Business Information” (or “trade secret”) as laid out in Section 6254.7 of the California Government Code. In addition to this, the calculations required to obtain the outputs (which are confidential business information) were laid out in the “CA-GREET3.0 Model in Support of Application” which was posted for public comment.

Comment 1 (a): *“The materials available for review also leave out critical information regarding the demand for biogas for vehicles and fail to take into consideration clean, renewable energy sources”*

Replacing fossil fuel-derived electricity with low CI electricity is an appropriate and approved approach for reducing greenhouse gases and reducing air pollution from the transportation sector. The methodology is laid out in “Low Carbon Fuel Standard (LCFS) Guidance 19-06”.

Comment No.2. *“the project will increase air pollution and threatens water quality in the locality and region, thus undermining the state’s climate, environmental justice, and equity goals,”*

Response:

The statement is false. First, this project produces several tangible benefits for the farm, the local community, and the environment. The project captures and destroys methane, thus reducing emissions when compared to the baseline practice of sending the manure to an open pit lagoon. Pre-digestion solids are separated composted for 30 days and used for cattle bedding. Post digestion, manure is separated into solids and the liquids are applied to crop land to recycle nutrients, reducing demand for chemical fertilizer. It is common practice in the area to store the manure in an open lagoon and land-apply it, thus the existence of this digester poses no new water quality, and complies with all water quality regulations.

The commenter says “The handling of the digestate is not addressed”. The LCA clearly states that the digestate from the lagoon which is held in the effluent ponds prior to field application meets regulation, is captured within the quantification and divulged to CARB in the CBI documentation (in section L4 of the Manure Calculator). All emissions from the digestate are accounted for in the “Simplified CI Calculator for Biomethane from Anaerobic Digestion of Dairy and Swine Manure”. The land application of effluent is outside the scope of the project. Beyond this, the effluent storage tank and holding tank each emit substantially less than a standard practice manure lagoon. Second, regarding the project’s impact on environmental justice and equity, the common practice of storing manure in an open lagoon poses odor issues to the surrounding community and the use of a digester reduces odors. Other benefits to climate, environmental justice and equity include converting nutrients to more usable forms for crops and supplying well-paying jobs for the local community, increasing the surrounding community’s quality of life.

Furthermore, the approval of this pathway is accounting for the lifecycle CI of renewable electricity for use in transportation where higher CI, majority fossil fuel derived grid electricity is displaced by using said renewable electricity in electric vehicles (EVs). Replacing fossil-fuel derived vehicle fuel with renewable fuels is one of the primary strategies to reduce greenhouse gas emissions in the transportation sector.¹ Electricity is already one of the cleanest ways to power vehicles, and thus using low-CI electricity even further improves the environmental impact of this industry.

Emissions associated with the minimal flaring are captured and calculated according to the methodology in the “Simplified CI Calculator for Biomethane from Anaerobic Digestion of Dairy and Swine Manure” posted by CARB. The approach used is standard practice and has been scrutinized and approved by a third-party validator and by CARB in an engineering review. Also, any emissions associated with the use of internal combustion engines where the biogas is converted to low CI

¹ California Air Resources Board. Dairy Digester Emissions Matrix Presentation. May 2018.
https://ww3.arb.ca.gov/fuels/lcfs/fuelpathways/comments/tier2/b0060_carb_response.pdf

electricity are also captured in the aforementioned CI calculations and are explained in the “CA-GREET3.0 Model in Support of Application” Document”.

Comment No.3. *“it appears that the GHG calculations ignore the GHG emissions from the production and management of methane on dairies”*

Response:


The project’s greenhouse gas emissions from dairy operation and cheese plant wastewater are not ignored, but are rather the basis of the baseline GHG calculations. In the absence of the digester, the dairy would emit methane from the baseline practice of manure storage in an open pit lagoon, in the project condition these emissions are captured and destroyed. The CI calculation explicitly accounts for these greenhouse gases that are captured, destroyed, and converted into renewable electricity. The wastewater that the commenter fails to understand the source of, comes from an adjacent cheese plant which would be produced regardless of the existence of the dairy. By recycling this water to flush the free stall lanes of the cows, the farm is decreasing its reliance on valuable and scarce freshwater resources. Also, the emissions that would be associated with the degradation of the volatile solids in this wastewater that could occur at a conventional wastewater treatment plant are largely avoided by sending it to the covered lagoon where it degrades anaerobically and is used to produce biogas, and ultimately low-CI electricity. Emissions avoided from the cheese plant wastewater in this process are outside the scope of the project, but would exist in both the baseline and project scenarios. The contention of the commenter that manure can be valuable for agriculture is addressed through using the digester effluent for field application, and anaerobic digestion is a well-known method of nitrogen removal thus avoiding excess nutrient loading.

Comment No.4. *“this project will actually incentivize the production of methane.”*

This statement is unsubstantiated. The main reason that dairies have undertaken the task of managing their manure is to control their herd’s emissions in the most efficient way possible. The head number is dictated by facility capacity and market demand, not because they are incentivized to produce methane. To date, the environmental attributes associated with dairy manure projects are so time-consuming and costly and cumbersome to earn that they do not drive farmers’ decisions about herd size. Unlike the commenter has suggested, the facility has not opted out of solids separation, but rather has been doing this since the project’s inception in order to reduce emissions; this solid separation is captured in the emissions calculations.

Gallo Cattle Company appreciates the opportunity to respond to comments received for the Gallo Farms pathway. As demonstrated through the third-party validation, ARB review as well as the pathway application materials and responses to public comment herein, all requirements of the LCFS Regulation for certifying this pathway have been met. Gallo respectfully requests that the Executive Officer certify this pathway.

Sincerely,


Michael D. Gallo
Gallo Cattle Company