January 9, 2020

California Air Resources Board
1001 I Street
Sacramento, CA 95814

Re: Tier 2 Pathway Application: Application No. BOO60

To Whom It May Concern,

The undersigned organizations write in opposition to the dairy waste to energy project proposed by AMP Americas and RDF Fair Oaks: (1) information and data included in the application and relied upon for approval is redacted such that an independent review of the proponent's claims and the accuracy of calculations and impacts is impossible, (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, (3) it appears that the GHG calculations ignore both potential GHG emissions and double count alleged GHG reductions, (4) this project will actually incentivize the production of methane, and (5) the project will contribute to methane leakage from transport of gas.

Lack of Available Information and Data Transparency

The applicants and/or the California Air Resources Control Board (CARB) withheld and redacted information regarding dairy operations, energy production, and calculations related to GHG emission reduction such that it is impossible to determine both the air quality and water quality impacts that the project will produce, as well as the energy conversion and energy production rates which, along with information regarding dairy operations, is necessary to assess the veracity of the claimed project benefits and the carbon intensity value. In short, based on our review of the available documents there is no way to comment in any informed way on the proposed project or assess the accuracy and value of the justification presented. Below we have reproduced just one page that is illustrative of the amount and kind of data and information hidden from public review.

1.3 Selected Electricity Grid Mix

The RFC West (RFCW) 2012 eGRID region was used to model the RDF facility (in Fair Oaks, IN).

1.4 Natural Gas Transmission

[redacted]

2. Fair Oaks 2 (Site 2) Fuel Pathway Results

Adopting modification stated above the following table reflects the fuel pathway for Fair Oaks 2 (Site 2) taken from Section 4 of the completed modified Tier 1 calculator.

Exhibit 2. Fair Oaks 2 CI Calculation Details

	CI Calculation Details – gCO2e/MJ
Raw Biogas Production – Digester	
Net-Grid Electricity	[redacted]
Utility Sources Natura Gas	[redacted]
Biogas Upgrading	
Grid Electricity	[redacted]
Utility source NG	[redacted]
Biomethane (flaring)	[redacted]
Feed Loss (fugitive methane)	[redacted]
Biomethane Transmission	[redacted]
CNG Production	[redacted]
Tailpipe Emissions	[redacted]
Methane Avoided Credit	[redacted]
CO2 Diverted Credit	[redacted]
Final CNG CI	-255.74

https://ww3.arb.ca.gov/fuels/lcfs/fuelpathways/comments/tier2/b0060_report.pdf

The materials available for review also leave out critical information regarding the demand for CNG and fail to take into consideration the availability of other, cleaner sources of energy (e.g. solar, wind, etc.).

Additionally, CARB withheld the following information, alleging that they contain confidential business information: Attestation Letter, Utilities Invoices, Facility Process Flow Diagram, and Monthly Data and Calculation for GREET Input Values. Without access to data critical to allow an independent analysis of truly monumental carbon intensity values or environmental and ecological impacts of the proposed project, the application must not be approved.

Finally, it is critical that there be up-to-date, accurate, verifiable, and ongoing monitoring of greenhouse gas emissions and air pollution along with water discharges from the subject dairies and related digester operations. No application should be approved without agreement from all applicants to participate in ongoing environmental monitoring that is available to the public and relevant agencies.

Air and Water Quality Impacts

This project will threaten environmental degradation in the local community and throughout the region due to increased air pollution and groundwater contamination. Studies find that manure exiting a digester emits as much as 81% more ammonia than raw manure. Increased ammonia together with increases in NOx creates an even more intensive ammonium nitrate PM 2.5 impact.

Additionally, this project could impact air quality in California by sustaining use of polluting fuel when alternative, zero emission energy sources are available as transportation fuels such as hydrogen and battery electricity. There is simply no need to generate and promote polluting transportation fuel when other sources are available, expanding, and increasingly cost effective. Additionally, large scale dairies are a primary contributor to groundwater and surface water contamination. Cow manure, and in particular liquefied manure applied to cropland, contributes nitrate to groundwater, which impacts the health and economic well-being of residents and communities in nearby towns and cities. Digesters, like the digester at issue in this application, rely on manufactured, liquefied manure that is deleterious to the environment and nearby communities to generate profits for a select few by monetizing waste for energy production. Our present understanding is that anaerobic digesters, such as the one at issue here, do not remove – and in fact concentrate – nitrogen. Additionally, the Federal Government's Natural Resource Conservation Service has acknowledged that nutrients in digester manure are more soluble than undigested animal waste—which makes it more likely to run off and leech into groundwater. The resulting digestate is thus at least as likely to impact water quality as unprocessed manure, and potentially more so. Furthermore, studies have shown that digesters that combine manure with other waste for increased fuel production, increase the nitrate concentration of digestate which in turn, when applied, will exacerbate groundwater pollution even more.

As no information is available with respect to total herd size, volume of liquefied manure produced, nitrogen concentration or chemical composition in digestate, or application of digestate to land, it is impossible to know the extent to which this project could pollute and threaten water quality under and near the participating dairy or dairies.

Incomplete and Potentially Inaccurate GHG Analysis

Similarly, the calculation of GHG emissions and alleged reductions ignore the GHG emissions of manure production. The GHG emissions from the dairy —including methane released from manure, enteric emissions, and other dairy operations—are not regulated. Therefore, these emissions must be calculated and applied to the lifecycle GHG analysis for this project. A complete LCA is a requirement for LCFS pathways. Just as with corn ethanol pathways, everything related to this dairy operation is in someway related to the corresponding production of methane including land use changes.

It is unclear what feedstocks are being added to this dairy digester project. In the air permit for the digester, up to six daily feedstock truck trips of 1.4 miles one-way and carrying a net load of up to 20 tons each, are entering the digester plant. What exactly is this feedstock and what would happen to it, alternatively, if this digester project, with the proposed pipelining of RNG to Bakersfield, did not exist? (see page 60 of the document linked below).

https://ww3.arb.ca.gov/fuels/lcfs/fuelpathways/comments/tier2/b0060_permitB.pdf

The fact that manure from dry lots may be added to the feedstock for these digesters, may be allowing the creation of methane that would not otherwise be created by this dairy otherwise. The extra feedstock, implies this project is producing methane that would otherwise not be created through the normal operations of the dairy. This, in turn, implies there should be no negative carbon intensity given to this methane because a significant quantity is being produced on purpose. The life-cycle assessment has to include the fact that feedstocks are being fed into the digester and creating methane solely because of the existence of the digester. This should disqualify the methane from receiving a negative carbon intensity.

Double counting of carbon credits is also an issue with this project. Below is a quote from an article about the Fair Oaks Dairy.

"A working dairy with some 35,000 cows, it has been compared to a Disneyland theme park with tours like Dairy Adventure, **where families and school groups can witness the "fun-filled life of a cow."** The Fair Oaks website touts transparency, animal welfare and sustainability as key tenets of the farm and describes a lean carbon footprint thanks to turning cows' manure into biofuel that powers its milk trucks."

If Fair Oaks wishes to claim a "lean carbon footprint" as a marketing ploy for their milk then they cannot also claim credit for the CNG sent to California where the CNG receives a negative carbon intensity. The LCFS does not allow double counting.

In another published article, it is stated: "Fair Oaks Farms aims to have a zero carbon footprint"

https://www.nwitimes.com/business/fair-oaks-farms-aims-to-have-zero-carbon-footprint/article_d73f7fd3-3ab1-507e-987f-08f3a2bb641d.html

Please explain how and to what extent this LCFS proposal is part of this "zero carbon footprint". This is important because no double counting is allowed.

As stated in the application staff summary: "The biomethane and its environmental attributes claimed under this pathway shall not be claimed by any entity for any other purpose, nor under any other program notwithstanding the exceptions listed in LCFS Regulation section 95488.8(i)(1)(B)(3)."

https://ww3.arb.ca.gov/fuels/lcfs/fuelpathways/comments/tier2/b0060_summary.pdf

Climate Impacts of Methane Leaks

It appears that the analysis fails to take into consideration the climate impacts of methane leaks, including the cataclysmic impacts of methane blowouts like we've seen in gas infrastructure throughout the country and recently in Ohio.

Incentivized Production of Methane

This project and similar projects do not just undermine California's climate and environmental justice goals, but actually incentivize increased production of methane (and the concomitant pollution that accompanies methane production). To the extent that dairies are making manure and waste

management decisions to increase methane production – such as increasing herd size to increase, in whole or in part, manure production, opting out of solid separation to increase methane, sometimes taking in food wastes for digestion, and even opting for liquefied manure management instead of methods that prevent production of methane in the first place – they should not reap the benefits of the LFCS program, designed to reduce greenhouse gases, instead of incentivize production thereof.

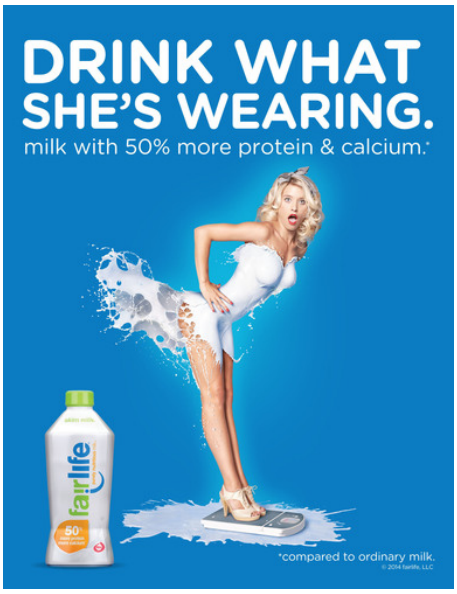
Project Rewards Dairy with Demonstrated Bad Behavior

This dairy digester project is in some way related to Fair Oaks Dairy where criminal animal abuse has been recently documented.

https://www.chicagotribune.com/business/ct-biz-fair-oaks-farms-what-to-know-20190607-story.html

At the very least, CARB must verify that each applicant is conforming with all mandated environmental requirements, including humane treatment of animals, prior to approving any application and must incorporate reporting procedures that ensure ongoing compliance with legal mandates.

California also should not be making LCFS deals with dairies that sexually exploit women to sell their product. This is one ad of several similar ads that originated from Fair Oaks Dairy as they developed and sold a product known as Fair Life Milk. https://www.huffpost.com/entry/fairlife-sexist-milk-ads_n_6248376



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In conclusion, this project should be denied because it will harm air quality in both Indiana and California, threaten water quality in Indiana, and fails to consider the full lifecycle emissions of 5 methane production from the dairy and feedstocks. Furthermore, there is inadequate data to determine the extent to which the project will reduce greenhouse gas emissions and fails to take into consideration how the project will incentivize production and emission of greenhouse gases. Unless and until there is publicly available and verifiable data demonstrating that this project will not produce negative local air

and water impacts, and the extent to which this project will actually reduce greenhouse gas emissions that could not otherwise be reduced by other means, CARB must deny this application.

Sincerely,

Phoebe Seaton, Leadership Counsel for Justice and Accountability
Tom Frantz, Association of Irritated Residents
Kevin Hamilton, Central California Asthma Collaborative
Ara Marderosian, Sequoia ForestKeeper
Rebecca Spector, Center for Food Safety
Jim Walsh, Food & Water Watch and Food & Water Action