

California Air Resources Board (CARB) Response:

CARB appreciates the comments and agrees with commenters that it is important to consider potential local air and water quality impacts from the production and use of alternative fuels, and that public disclosure of non-confidential operational information supporting the calculation of fuel pathway carbon intensity (CI) is appropriate.

In response to the commenter's assertion that the project should be denied because it will harm local air quality and will threaten water quality in California, CARB notes that the LCFS pathway approval does not permit the project to operate. That decision is separate, and outside of CARB's control. Local permitting and air/water quality agencies are required to consider air/water quality controls, and could be expected to appropriately address any issues consistent with law.

Rather, the CARB pathway approval is an accounting of the life cycle carbon intensity (CI) of renewable natural gas (RNG) for use in transportation that can be used for LCFS crediting based on the displacement of diesel use by RNG in vehicles. This calculation is a narrow decision as to those issues, and so does not result in air quality impacts of any kind. Questions regarding water quality impact and double counting are addressed separately by the applicant.

Replacing diesel vehicles with natural gas vehicles reduces greenhouse gas (GHG) emissions and decreases criteria air pollutant emissions from transportation. Through the crediting of low carbon intensity RNG used to fuel light- and heavy-duty vehicles, the LCFS promotes decarbonization within the transportation sector. The alternative fuels and vehicles promoted under the LCFS have and will continue to result in net benefits for air quality statewide, as demonstrated in the air quality and health analyses conducted as part of the 2018 LCFS rulemaking.¹ CARB's emission analysis shows that, across the full fuel life cycle of dairy manure to RNG pathways, there is an overall net reduction in NOx and PM, relative to the use of diesel fuel.²

The potential for local increases in criteria pollution associated with some fuel production processes and related activities was acknowledged and discussed as part of the Final Environmental Analysis for Amendments to the Low Carbon Fuel Standard in 2018.³ That consideration also recognized the fact that increased availability of low carbon RNG provides an alternative to the use of diesel fuel thus resulting in lower diesel PM emissions throughout California and particularly in the valley where diesel trucks are one of the largest contributors to the diesel particulate matter. In approving the LCFS amendments, the Board found that despite the conservatively assessed

¹ Staff Report: [Initial Statement of Reasons for the Proposed Regulatory Amendments to the Low Carbon Fuel Standard](#), March 6, 2018. See Chapter V.

² California Air Resources Board. [Dairy Digester Emissions Matrix Presentation](#). May 2018.

³ [Final Environmental Analysis for Amendments to the Low Carbon Fuel Standard and the Alternative Diesel Fuels Regulation](#), September 17, 2018.

potential for adverse environmental impacts associated with certain pathways, other benefits of the regulatory action, such as those described above, were determined to be overriding considerations that warranted approval of the proposed regulation.⁴

In response to comments regarding transparency of information in the posted application materials, consistent with California law and LCFS guidance 20-05,⁵ the applicant had redacted the LCA report minimally to disclose as much information as possible. The Staff Summary provided the herd size and manure management practices both pre- and post-digestion at each dairy, and a description of the upgrading process and energy use at the production facility. Air Permits for the digesters and upgrading unit are included in the publicly posted application package to ensure the public is provided convenient access to information related to air quality. The posted package also includes the digester water permits. The utility invoices, electricity bills, other monthly data and the CA-GREET Model input values are designated as confidential business information by the applicant. All confidential data and supporting documentation was independently reviewed by CARB-accredited third-party verification bodies.

In response to the comment on assigning avoided emissions to elemental sulfur produced as co-product, note that this approach would result in a lower overall carbon intensity value for the fuel produced. By omitting the recovery and use of elemental sulfur as co-product, the calculated CIs are more conservative.

CARB encourages stakeholders to review responses submitted by the applicant and CARB and notify CARB of any potential factual or methodological errors based on the supplemental information. Stakeholders can submit additional comments to Anil Prabhu, Manager, Fuels Evaluation Section at Anil.Prabhu@arb.ca.gov.

Pursuant to section 95488.7(d)(5) of the LCFS regulation, CARB has determined that applicant's responses are adequate and certified these fuel pathways.

⁴ California Air Resources Board. [Resolution 18-34 Attachment E Findings and Statement of Overriding Considerations](#), September 27, 2018.

⁵ Low Carbon Fuel Standard (LCFS) Guidance 20-05. [Redaction of Confidential Business Information under the Low Carbon Fuel Standard](#), April 2020.