



January 23, 2020

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

RE: Tier 2 Pathway Application: Application No. B0009 – Response to Public Comment dated January 15, 2020, submitted by Leadership Counsel for Justice and Accountability, Association of Irrigated Residents, Central California Asthma Collaborative, Sequoia ForestKeeper, Center for Food Safety and Food and Water Watch and Food and Water Action

Dear Mr. Prabhu:

Element Markets Renewable Energy, LLC (“EMRE”) is submitting this letter in response to the public comment letter received on January 15, 2020 from Leadership Counsel for Justice and Accountability, Association of Irrigated Residents, Central California Asthma Collaborative, Sequoia ForestKeeper, Center for Food Safety, and Food and Water Watch and Food and Water Action (“Commenter”) regarding Tier 2 Pathway Application No B0009 for biomethane (Bio-CNG, Bio-LNG, and Bio-LCNG) from anaerobic digestion of swine manure produced by Locust Ridge Farm located in Harris, Missouri (“Locust Ridge Pathway”).

This response letter addresses the comments related to potential factual or methodological errors in accordance with Section 95488.7(d)(5)(A) of the Low Carbon Fuel Standard (“LCFS”) Regulation.

Each of the comment letter arguments are listed below in *italics*, followed by EMRE’s responses provided in **bold**.

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.*

EMRE provided CARB Staff with a comprehensive package of all required supporting information and documentation necessary to certify a Tier 2 Pathway application in accordance with Sections 95488.7 and 95488.8 of the LCFS Regulation. CARB Staff reviewed EMRE’s submission package and confirmed that the application requirements per the LCFS Regulation had been satisfied and the carbon intensity (“CI”) score was accurately calculated using the Simplified CI Calculator for Biomethane from Anaerobic Digestion of Dairy and Swine Manure published on CARB’s LCFS website. All redacted information in the publicly posted application package contains competitive trade secret information and is considered Confidential Business Information which is protected from public disclosure under California Government Code 6254.7. EMRE submitted the full un-redacted pathway application to CARB Staff for review and certification.

Starting January 1, 2020, CARB implemented a mandatory verification program through which all certified LCFS pathways will be subject to ongoing verification by a CARB accredited third party auditor. The verification program will provide an additional level of oversight and scrutiny to all activity within the LCFS program which is in line with the Commenter's suggestion for ongoing environmental monitoring.

1(a). *The application "leaves out critical information regarding the demand for CNG and fails to take into consideration the availability of other, cleaner sources of energy for transportation fuels (e.g. solar wind etc.)".*

This comment is not relevant to approval of EMRE's Locust Ridge Pathway. However, CARB Staff has done a great job through the LCFS Rulemaking Process to develop a comprehensive fuel supply forecasting tool called the Illustrative Compliance Scenario Calculator which demonstrates the alternative fuel supply volume necessary to achieve the LCFS program goal of 20% reduction in CI of California transportation fuels by 2030. CNG demand growth through 2030 is well documented in this model and it is abundantly clear that in order to achieve the 20% reduction goal by 2030, California will need a significant volume of ALL alternative fuels including but not limited to agricultural biomethane and renewable electricity.

2. *The project will increase and/or sustain air pollution and threats to water quality in the locality and the region from these related swine CAFO's, this undermining universal climate, environmental justice, and equity goals which are also legislated in California.*

This statement is incorrect. Instead of venting methane, a harmful greenhouse gas with a global warming potential 25 times worse than carbon dioxide, the Locust Ridge Project voluntarily captures methane from the Locust Ridge Farm to produce biomethane for pipeline injection. This provides tremendous benefit to the locality and region in addressing air quality and GHG emission issues and promotes attainment of universal climate, environmental and equity goals.

With respect to operation of the Locust Ridge Project, all required air, operating, and other applicable permits were included in EMRE's Locust Ridge Pathway application for CARB Staff review.

3. *It appears that the GHG Calculations ignore both potential GHG emissions and double count alleged GHG reductions.*

The Commenter incorrectly asserts that the Locust Ridge Pathway "*constitutes double counting of carbon credits*". The statement in the CARB Staff Summary that the biomethane and environmental attributes claimed under the Locust Ridge Pathway will not be claimed by any entity for any other purpose is accurate. Biomethane and associated environmental attributes from the Locust Ridge Project are delivered to California for use as transportation fuel. The biomethane and associated environmental attributes are not and will not be simultaneous delivered and consumed in any additional market in an attempt to double count usage of the biomethane for additional credit generation. Supporting documentation for the delivery and consumption of the Locust Ridge Project biomethane and environmental attributes was reviewed and accepted by CARB pursuant to Section 95488.8(i)(2).

The Commenter also incorrectly implies that the Locust Ridge Pathway ignores other GHG emission sources, specifically emissions from truck transport of biomethane from the Locust Ridge Farm to the pipeline injection location and liquefied natural gas (“LNG”) truck transport from the liquefaction plant to end users in California. The Locust Ridge Pathway CI included all lifecycle emission calculations including emissions for transporting biomethane via truck from the Locust Ridge Farm to the pipeline injection location in addition to the emissions associated from transporting LNG from Arizona to Los Angeles. This is confirmed by CARB through the “CA-GREET 3.0 Model in Support of EMRE Application” summary posted for public review.

4. *This project will actually incentivize the production of methane.*

Neither the LCFS Regulation nor the Locust Ridge Project incentivizes the production of methane. According to Section 95488.9(f), crediting for the voluntary capture of methane is limited to the methane that is captured by a biogas control system that would have otherwise been vented to atmosphere in the absence of such a project. Furthermore, avoided methane crediting only applies to methane emission reductions additional to any established legal requirement.

The suggestion that “*the methane released to the air by this operation must offset any methane collected and accounted for in the LCA*” is in direct conflict with both Section 95488.9 (f)(1)(B) of the LCFS Regulation and Chapter 5 of the Compliance Offset Protocol Livestock Project (“LOP”) regarding quantification of baseline and avoided methane emissions. Pursuant to the LCFS and LOP Regulations, all emission reductions claimed must be additional to any legal requirement for the capture and destruction of biomethane. The CI calculation for the Locust Ridge Pathway demonstrates the voluntary reduction of emissions below Locust Ridge Farm’s legal baseline condition.

5. *The project will contribute to methane leakage from transport of gas.*

The Locust Ridge Project will displace fossil fuel natural gas in the existing natural gas pipeline network, and introduction of biomethane from this project will not lead to incremental methane leakage from pipeline transport. Nonetheless, the calculated CI score for the Locust Ridge Pathway accounts for methane leakage in pipeline transport from the Locust Ridge injection location in Missouri to the end use location in California.

5(a). *Use of this hog manure gas as a negative carbon transportation fuel appears to be directly against California’s GHG reduction goals.*

This claim is unsubstantiated. The purpose of the LCFS program is to reduce the full fuel-cycle, carbon intensity of all transportation fuels in California in order to achieve the GHG and criteria pollutant reduction goals established by the State Legislature. Natural gas vehicle technology has played an instrumental part in reducing both GHG and criteria pollutant emissions from heavy duty trucking in California. Replacing on-road diesel trucks and buses with near-zero natural gas vehicles fueled by ultra-low CI biomethane sourced from swine manure produces immediate climate and air quality benefits for California.

EMRE appreciates the opportunity to respond to comments received for the Locust Ridge Pathway. As demonstrated through the pathway application materials and responses to public comment herein, all requirements of the LCFS Regulation for certifying this pathway have been met. EMRE respectfully requests that the Executive Officer certify this pathway.

Sincerely,

Brandon Price

Brandon Price | Director, RNG Operations

3555 Timmons Lane, Suite 900, Houston, Texas 77027

Direct 916.701.9262

bprice@elementmarkets.com