



Ursula Lai

California Air Resources Board
P.O Box 2815
Sacramento, CA 95812

December 16, 2021

RE: Response to Public Comment - Application No. B0220 Tier 2 Pathway: Compressed Natural Gas (CNG) from Swine Manure

Dear Ursula,

Public comments were submitted during the last day of the 10-day public comment period for Element Markets Renewable Energy, LLC ("Applicant") Tier 2 Pathway for Compressed Natural Gas ("CNG") from Swine Manure for use as transportation fuel in vehicles in California. According to §95488.7(d)(5)(A)(2), this letter provides written response to the Executive Officer why the fuel pathway Applicant for application No. B0220 ("Application"), believes that revisions to the Application are not necessary or required. Responses to the public comments are included in this letter.

Pursuant to §95488.7(d)(5)(A): "Only comments related to potential factual or methodological errors will require responses from the fuel pathway applicant." The Applicant believes that the comments received are not related to factual or methodological errors and incorrectly claim adverse environmental damage resulting from the project. In the contrary, the project provides long-term benefits to improved air quality and reductions in greenhouse gas emissions.

We thank you for the opportunity to respond to public comments and we respectfully request that the Executive Officer certify the Application pursuant to §95488.7(d)(5)(B).

Sincerely,

A handwritten signature in black ink, appearing to read "S. O'Neill", written in a cursive style.

Scott O'Neill
Senior VP Operations
Element Markets, LLC

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Public Comment to the Application and Applicant Response

Comment No.1

“Were CARB to certify this pathway, it would be knowingly violating the LCFS regulation and corrupting the integrity of the LCFS program by failing to apply a “well-to-wheels” life cycle analysis, resulting in an inflated and unsupportable Carbon Intensity value that will allow transportation fuel providers to pollute more without actually offsetting those emissions. CARB has acknowledged that pollution from transportation fuels inflicts a racially disparate impact, so this continued certification of fuel pathways to allow more pollution from deficit holders contributes to this injustice.”

Applicant Response No.1

As required by sections 95488.7 and 95488.8 of the LCFS regulation¹, the Applicant provided all documents and information necessary to certify a Tier 2 pathway in conjunction with the approval of the CARB Staff. The same documents were provided to an approved third-party validator according to section 95500 of the LCFS regulation - a complete unredacted fuel pathway application and supporting material. The Staff Summary posted by CARB Staff and the Applicant provides an overview of the pathway, the facility operations, and ongoing operating conditions to which the fuel pathway will be subject. As stated in the Staff Summary, “[s]taff has reviewed the application and has replicated, using the Tier 2 modified version of the Simplified CI Calculator, the CI values calculated by the applicant. EcoEngineers (H3-20-008) submitted a positive validation statement”.

The approved GREET model provided by CARB calculates the Carbon Intensity of the project for the life cycle GHG emissions associated with the manure management practices of the farm and the biogas production and collection of the project. This documentation includes comprehensive farm and project information and data, including, but not limited to, the number of livestock, manure management practices and parameters, local environmental conditions, and metered operational records. This is used in the calibration of the CARB-approved CA-GREET3.0 Model (“GREET Model”)² for Anaerobic Digestion of Dairy and Swine Manure (August 2018).

The methodology follows the boundary defined in CARB's Compliance Offset Protocol for Livestock Projects (the “Protocol”)³. The Protocol accounts for emissions that would have occurred in the absence of the project and emissions generated through the operation of the project. The Protocol also specifies the parameters of the biogas production project that must be included in the emissions calculations. Any calculations used with the project data are taken from the Protocol and the GREET Model. This is in alignment with CARB guidance on calibrating the certified GREET Model submitted with the Application.

The third-party validator reviewed the entirety of the baseline and project data the Applicant used in the GREET Model. This review ensures the accuracy of the inputs and information. The same information was also provided to CARB for the purposes of an independent engineering review of the project prior to the pathway being posted for the 10-day public comment period.

¹ https://ww2.arb.ca.gov/sites/default/files/2020-07/2020_lcfs_fro_oal-approved_unofficial_06302020.pdf

² [Tier 1 Simplified CI Calculator for Biomethane from Anaerobic Digestion of Dairy and Swine Manure](#)

³ [Compliance Offset Protocol Livestock Projects](#)



Comment No.2

“Certifying this pathway would perversely reward Smithfield Foods’ irresponsible and harmful practices, which make it one of the biggest polluters in the United States. The source biogas for this project comes from a massive complex of Smithfield factory farms that deploy rudimentary, unsustainable waste management practices – i.e., storing vast quantities of liquified manure and other waste in lagoons in anticipation of disposal via land application.

Applicant Response No.2

The hog farming industry is strictly regulated nationwide by state and local agencies who enforce regulatory processes and policies that proactively address unintended negative impact to the environment and communities. The state of Missouri is no exception.

The benefits of digestion and digesters in manure management, and the science surrounding the benefits of increased volatile solids destruction and pathogen reduction, are well-documented and clear. The U.S. EPA, USDA, DOE, etc., have encouraged the use of digesters for years as a means of enhanced manure management on farms.

The project’s biogas operations make hog farming even more sustainable by utilizing existing farming operations to create clean energy from fugitive methane emissions that would otherwise be emitted into the atmosphere. The LCFS program incentivizes the reduction of methane from the project's ongoing operations by rewarding project owners that mitigate methane venting, reduce flaring, or improve manure management practices and reduce the overall energy demand of the project. This project will reduce methane emissions and other GHG emissions with the capture of biogas produced from uncovered lagoons. Methane (CH₄) is a short-lived climate pollutant that is 25 times more harmful and potent than carbon dioxide as indicated by CARB’s default value in the submitted GREET Model.

The project only accepts manure from swine livestock and the manure management system involves a scrape/gravity feed system designed to reduce the need for additional flush water. In the event of overflow, the liquids from the covered lagoons are pumped to the on-site effluent treatment system before final land application according to permit requirements, which helps farms better manage wastewater compared with other manure management processes.

Comment No.3

Somerset Farm spilled an estimated 350,000 gallons of waste from its lagoons into the environment and Missouri waterways earlier this year. This avoidable practice, designed to maximize profits at the expense of the environment and local communities, directly causes the methane emissions supposedly mitigated by this project. Intentionally creating avoidable methane pollution should not be rewarded with LCFS credits.”

Applicant Response No.3

Smithfield worked closely with the state to resolve the accidental NOV as quickly as possible and has re-engineered the system involved to prevent any incident of this kind from recurring in the future. Incidents like these are extremely rare; this was the first violation of any kind for this facility in more than a decade. The compliance issue noted has been settled with the State of Missouri, and current operations are fully compliant.



Comment No.4

“As this application highlights, CARB’s unlawful administration of the LCFS program is causing environmental and public health harms not just in California, but to communities and ecosystems across the United States – in this case Missouri – by incentivizing and rewarding some of the worst factory farm practices.”

Applicant Response No.4

The LCFS program requires certified pathways to operate within the boundaries of the facility’s operating permits. The project is required to remain in compliance with applicable regulations and will continue to do so. Furthermore, the project will adhere to the reporting and recordkeeping obligations within the LCFS regulation. The Applicant submitted an unredacted copy of the Air Quality Permit for biogas operation issued to Murphy Brown LLC dba Smithfield Foods, INC – Somerset Farm by the State of Missouri Department of Natural Resources on August 11, 2020, to CARB as part of the pathway application.

A stringent level of methane monitoring and avoidance of fugitive methane emissions is required by the operating condition imposed by CARB and stated in the Staff Summary - “Any quantity of biomethane metered as captured that cannot be demonstrated by meter records to have been destroyed, must be calculated by energy balance and accounted for in the CI as a fugitive methane emission if the calculated value exceeds the default 2% fugitive emission.” The GREET Model submitted for this pathway accounts for any environmental impact of methane leakage from the project and does not provide this facility any crediting for vented or fugitive methane.

Air pollution is directly reduced by the capture of methane which would have been otherwise emitted or vented into the atmosphere. Air pollution is also improved since renewable natural gas will be utilized as a substitute for conventional fossil fuel powered vehicles. The presence and operation of the covered lagoons poses no new water quality issues and complies with applicable water quality regulations.

There are a few small biogas blowers transferring the raw digester gas to the upgrading facility via a closed network of pipelines that do not pose a risk of environmental effects or methane blowouts involving gas infrastructure. The facility has safety protocols in place to protect its employees involved in operations.

Comment No.5

“Petition for Rulemaking to Exclude All Fuels Derived from Biomethane from Dairy and Swine Manure from the Low Carbon Fuel Standard Program”

Applicant Response No.5

The remaining items issued in the response document to the Applicant for provisional certification of a Tier 2 pathway for manure methane are not objections about methane capture and upgrading. The petition referenced in Comment No.5 are comments submitted and addressed to CARB separately and as such, are outside of the scope of this fuel pathway application.