



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

December 28, 2022

**RE: Response to Public Comment - Application No. B0371, Tier 2 Pathway: Compressed Natural Gas (CNG) from Swine Manure**

Dear Ursula,

Public comments were submitted during the 10-day public comment period for Element Markets Renewable Energy, LLC ("Element Markets") 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 explaining why Element Markets, as fuel pathway holder, believes that revisions to the fuel pathway application are not necessary or required.

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 comments received are not related to factual or methodological errors. However, Element Markets desires to address these claims as a participant in the Low Carbon Fuel Standard ("LCFS") program, because the comments incorrectly attribute adverse environmental damage to the project. To the contrary, the project provides long-term improvements to air quality and reductions in greenhouse gas emissions.

Element Markets' responses to all public comments received are included below and Element Markets' position is that no revisions to fuel pathway application B0371 are needed. We thank you for the opportunity to respond to comments on this fuel pathway application and we respectfully request that CARB certify the pathway 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 of Operations  
Element Markets, LLC

## Public Comment to the Application and Applicant Response

### Comment No.1

*“...the application incorporates an unlawfully truncated system boundary that ignores feedstock production at the source...” and “...other emissions such as those from storage and disposal of digestate, resulting in artificially low Carbon Intensity (CI) values and inflated credit generation...”*

### Applicant Response No.1

We believe these statements to be inaccurate. The analyses have been conducted according to the LCFS requirements and verified by CARB staff. Element Markets has fully utilized the CA-GREET3.0 life cycle analysis tool for this pathway application. We understand that this tool will continue to evolve over time due to changing technology and continually improving emissions inventory accounting.

The baseline is the absence of an anaerobic digester, the manure would have been sent to an open lagoon where it would degrade and create methane. This is common practice in the industry as the farms standard practice is to produce swine products. In the project scenario, the methane is being captured, cleaned of contaminants, and used as vehicle fuel. Thus, emissions are avoided from the baseline. The LCFS provides the incentive to the farm to reduce the carbon footprint of its operation.

The Commenters also oppose the application because its renewable digester gas would be available for book and claim accounting. The use of existing program mechanisms would be a positive example of the LCFS program working to promote low carbon fuel production and utilization.

### Comment No.2

*“CARB has failed to ensure that the additionality requirements of Health and Safety Code section 38562 are met. (...) the methane capture at issue is patently not additional. (...) Accordingly, any purported emission reductions associated with these digesters have already been occurring and presumably will continue to occur with or without being subsidized by the LCFS program.”*

### Applicant Response No.2

A portion of the Commenter’s response is addressed to CARB separately and as such, is outside the scope of comments to this fuel pathway application. As required by sections 95488.7 and 95488.8 of the LCFS regulation, Element Markets provided all documents and information necessary to certify a Tier 2 pathway in conjunction with the approval of 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 provides an overview of the pathway, the facility operations, and ongoing operating conditions to which the fuel pathway will be subject.

### Comment No.3

*“...CARB’s flawed approach is rewarding the biggest factory farm polluters and incentivizing further expansion and herd consolidation, which does more climate harm than good.” ...  
“Smithfield-owned factory farms in Missouri were responsible for 748 reported spills, releasing more than 7.3 million gallons of pig waste on land and into waterways. Whitetail Farm was responsible for spilling an estimated 129,750 gallons of pig waste over that period”*

### Applicant Response No.3

A portion of the Commenter’s response is addressed to CARB separately and as such, is outside of the scope of this fuel pathway application. However, we agree with the mission and objective of the LCFS program to incentivize the reduction of methane and support a 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. The pathway application was vetted by both CARB and the third-party verification body and was found to be in compliance with regulatory boundaries.

The commenter also references pig waste spillage in nearby waterways. As the fuel pathway applicant, we believe these comments are directed towards the farm owners and not the capture and upgrading of renewable natural gas as indicated in this fuel pathway application. The required unredacted permits of operations are included with the fuel pathway application and were vetted by both CARB and the third-party verification body. Secondary containment receptacles are in place to capture spilling events, and Smithfield has never had a spillage event that reached the waters of the state. Thus, the statement “releasing more than 7.3 million gallons of pig waste on land and into waterways” is untrue. Smithfield worked with the state to resolve the compliance items noted, the matter has been settled with the State of Missouri, and current operations are fully compliant.

### Comment No.4

*“...this application is so opaque that it is impossible for Commenters or other stakeholders to meaningfully evaluate it. The lifecycle analysis redacts information critical to understanding the CI calculation.”*

### Applicant Response No.4

As required by sections 95488.7 and 95488.8 of the LCFS regulation<sup>1</sup>, Element Markets 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.

This documentation includes comprehensive farm and project information and data, including, but not limited to, 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”)<sup>2</sup> for Anaerobic Digestion of Dairy and Swine Manure (August 2018).

The third-party validator reviewed the entirety of the baseline and project data Element Markets 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.

The CARB Staff Summary posted for public review ensures that all pathway information required for public comment is unredacted. For example, a Life Cycle Assessment Report (“LCA Report”) discloses a summary of historic and current manure management practices, average number of swine livestock and other details regarding the facility operations.

All redacted information in the documents posted for public comment constitutes "Confidential Business Information" and is exempt from public disclosure under the California Public Records Act (see Section 6254.7 of the California Government Code and CARB guidance document 20-05<sup>3</sup>). In addition, any modifications to the default equations or assumptions of the GREET Model were also included with the posting.

#### Comment No.5

*“...the inflated CI values CARB proposes here work an additional environmental injustice on California citizens who will be exposed to higher levels of pollution from fossil transportation fuel and dirty vehicles made possible by excessive credit generation”*

#### Applicant Response No.5

The Commenters offer no analyses that evidence communities will be further harmed through this pathway, specifically the higher levels of pollution from fossil transportation fuel and dirty vehicles. This project will reduce methane emissions and other GHG emissions with the capture of biogas produced from uncovered lagoons. Methane (CH<sub>4</sub>) 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.

As a renewable fuel producer, the project supports CARB's objective to reduce greenhouse gas emissions and decrease petroleum dependence in the transportation sector. As such, Element Markets believes that this pathway benefits communities and ecosystems both in California and Missouri.

<sup>1</sup> [https://ww2.arb.ca.gov/sites/default/files/2020-07/2020\\_lcfs\\_fro\\_oal-approved\\_unofficial\\_06302020.pdf](https://ww2.arb.ca.gov/sites/default/files/2020-07/2020_lcfs_fro_oal-approved_unofficial_06302020.pdf)

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

<sup>3</sup> [Low Carbon Fuel Standard \(LCFS\) Guidance 20-05](#)