

November 17, 2025

Environmental Improvement Board
New Mexico Environment Department
1190 St. Francis Dr.
Santa Fe, New Mexico 87505

Re: EIB 25-23 (R) - In the Matter of Proposed Adoption of 20.2.92 NMAC Clean Transportation Fuel Program

Electrochaea Corporation is providing comments on the direct testimony of the Coalition for Clean Affordable Energy (CCAIE) Exhibits 9-12 on the New Mexico Clean Transportation Fuel Program (CTFP) by Cheryl Laskowski. Electrochaea supports the use of book and claim and does not support the CCAIE's recommendation 2, which asserts that low-carbon fuels and process electricity must be physically delivered to New Mexico.

Electrochaea is a provider of an e-fuel technology for the industrial-scale production of low carbon intensity (CI) renewable synthetic biomethane, a renewable and clean drop-in replacement for fossil natural gas. Electrochaea's process uses a biological catalyst, a methanogenic archaeon, to combine CO₂ and hydrogen into synthetic methane. In the first step, renewable electricity is used to produce renewable hydrogen by electrolysis. In the second step, hydrogen and CO₂ are delivered to the reactor. The reactor contains the archaea within a stirred nutrient solution which maintains the activity of the organism. The archaea take up hydrogen and CO₂ and synthesize methane and water. After leaving the reactor, the low CI synthetic methane is prepared for gas grid injection or use. The process produces clean, synthetic methane with a CI that is significantly lower than fossil natural gas.

e-Fuels are not exclusively liquid fuels and can benefit the CTFP

In their testimony, the CCAIE provides a definition for e-fuels saying they are "liquid fuels made from hydrogen and captured CO₂,"¹ and goes on to discuss how they are not commercially viable at this time. These statements are both incorrect. e-fuels can also be produced in gaseous form, as seen in Electrochaea's proprietary process. This process creates a gaseous e-fuel that is grid compatible and works as a drop-in replacement for fossil methane. Additionally, e-fuel production can benefit the CTFP through the use of waste CO₂. Utilizing the typical 40% CO₂ present in a 60% CH₄/40% CO₂ raw biogas mixture, e-fuels prevent this CO₂ from being emitted and generate nearly double the amount of fossil fuel replacement available in the CTFP.

¹ CCAIE Exhibits 9-12, *Direct Testimony of Cheryl Laskowski, Ph.D.*, pg. 7.

Electrochaea does not support the recommendation of the CCAE that fuels must be physically delivered to New Mexico

The CCAE argues that book-and-claim is not a verifiable or robust system for tracking fuel volumes delivered via gas pipelines and credit deficit generation, claiming there are zero in-state environmental and economic benefits, and that it creates a high verification burden. Electrochaea believes all these claims are untrue.

The CCAE makes the argument that the “low-carbon fuel never reaches New Mexico, so residents do not experience the cleaner air or health improvements.”² This argument ignores that emitted CO₂ is not confined to the borders of a state and is free to move in our atmosphere, causing climate change effects that impact New Mexico. Residents of New Mexico, therefore, benefit from avoided fossil emissions due to this impact. Avoided emissions generally serve an overall benefit to the reduction of greenhouse gases and apply to the CTFP’s mission of “reducing the carbon intensity of transportation fuels used in the state,”³ even when the fuel is generated elsewhere.

The CCAE also states that allowing book-and-claim accounting leads to the economic benefits of low-carbon fuel generation to be felt elsewhere, saying that “the program would transfer significant consumer dollars out of state while delivering no increase in the use of low-carbon fuels within New Mexico’s borders.”⁴ This argument does not consider the counter-factual that requiring physical deliverability requirements can also lead to economic burdens on in-state consumers. This can limit the supply of low-carbon fuels, resulting in an increased price of said fuels that would be passed on to consumers. Inevitably, leaving New Mexico behind instead of leading the way, in the race to reduce GHG emissions.

Lastly, the CCAE claims that book-and-claim is challenging for verification of fuels and credits, and that it creates “fraud concerns and potential double counting.”⁵ The CCAE uses California’s LCFS system as a comparison factor for an affidavit system without any evidence that California’s system does have rampant fraud through its tracking and generation systems. The CCAE also talks about Washington and Oregon’s CFS’ using M-RETS as a recognized tracking system, and suggest that “[s]hould the Board allow book-and-claim for biomethane, the Board must, at a minimum, require all biomethane book-and-claim to use RTCs and define what constitutes a ‘recognized’ tracking system.”⁶ Despite this, the CCAE still recommends that book-and-claim is not suitable for the CTFP. Book-and-claim accounting should be used in CTFP to avoid fraud. In addition, book-and-claim accounting expands the economic opportunity of the CTFP. Book-and-claim accounting provides flexibility to producers to participate without jeopardizing their projects.

Book-and-claim accounting should be allowed for low-CI electricity

In their recommendations, the CCAE recommends that the Board must “prohibit book-and-claim for fuels and process electricity unless physically delivered to and used in New

² CCAE Exhibits 9-12, *Direct Testimony of Cheryl Laskowski, Ph.D.*, pg. 38

³ *NM HB 41*. <https://www.nmlegis.gov/Sessions/24%20Regular/bills/house/HB0041.HTML>

⁴ CCAE Exhibits 9-12, *Direct Testimony of Cheryl Laskowski, Ph.D.*, pg. 42.

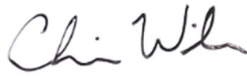
⁵ CCAE Exhibits 9-12, *Direct Testimony of Cheryl Laskowski, Ph.D.*, pg. 42.

⁶ CCAE Exhibits 9-12, *Direct Testimony of Cheryl Laskowski, Ph.D.*, pg. 46.

Mexico,”⁷ claiming it as a “loophole for process energy inputs.”⁸ This recommendation juxtaposes their own arguments, as they also cite that “[f]or electricity, there are strict requirements regarding the use of RECs to support claims of low-carbon electricity...This is an appropriately strict standard...”⁹ Even further saying that RECs used in a system such as the WREGIS are well-established, widely-used, and provide stronger safeguards.¹⁰ The CCAE’s recommendation for the disallowance of book-and-claim accounting for process electricity is incongruent with their own statements of its trustworthiness and should not be considered.

The CTFP is a well-designed program. It includes ample protection against double-counting and fraud and recognizes the importance of maintaining a technology-neutral program that is dependent on science-based CI calculations. New Mexico is creating a program that can lead the way for other states with smaller distribution systems to aid them in reducing their GHG footprint. Electrochaea recommends that the Environmental Improvement Board adopt the New Mexico Clean Transportation Program without inclusion of CCAE’s recommendation to require physical deliverability to New Mexico.

Sincerely,



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⁷ CCAE Exhibits 9-12, *Direct Testimony of Cheryl Laskowski, Ph.D.*, pg. 47.

⁸ CCAE Exhibits 9-12, *Direct Testimony of Cheryl Laskowski, Ph.D.*, pg. 43.

⁹ CCAE Exhibits 9-12, *Direct Testimony of Cheryl Laskowski, Ph.D.*, pg. 46.

¹⁰ CCAE Exhibits 9-12, *Direct Testimony of Cheryl Laskowski, Ph.D.*, pg. 44.