



March 15, 2023

The Honorable Liane Randolph, Chair
California Air Resources Board
1001 I Street
Sacramento, CA 95817

RE: Roeslein Alternative Energy Comments Regarding Potential Changes to the Low Carbon Fuel Standard

Dear Chair Randolph,

Thank you for the opportunity to submit comments in response to the February 22, 2023 Public Workshop regarding potential changes to California's Low Carbon Fuel Standard (LCFS). Roeslein Alternative Energy (RAE) has been a leader for over ten years in developing and enhancing the anaerobic digestion of livestock manure and the production of renewable natural gas at facilities throughout the United States. RAE has been leading the way to a better future by maximizing all of the positive environmental and economic impacts from biogas systems when they are used to recycle organic materials into renewable energy and rich, organic soil products.

Biogas systems protect our air, water, and soil by recycling organic material, like food waste, biomass, and manure into renewable energy and soil products. Biogas systems are a biological means to capture methane that would otherwise be emitted into the atmosphere for use as a renewable fuel. Our process specifically decreases baseline methane emissions by capturing and converting methane back into carbon dioxide. All of this is an effort to protect our air, water, and soil – crucial parts of the solution to the challenges CARB seeks to address. **In addition to the many benefits of producing biogas, renewable natural gas, and organic soil products, Roeslein Alternative Energy is committed to enhancing the anaerobic digestion process by developing biomass feedstocks from perennial prairie and winter-hardy biogas crops. The recent \$80 million USDA Partnerships for Climate Smart Commodities grant received by Roeslein Alternative Energy and its fourteen (14) partners will help develop and enhance climate-smart markets, reduce greenhouse gas emissions, and improve carbon sequestration in the production of corn, soybeans, pork, and beef commodities, while creating opportunities for small and underserved producers and benefitting soil health, clean water, flood control, and habitats for native wildlife. The grant project provides financial compensation for producers to plant prairie grasses and cover crops to be harvested and converted to biogas and biofertilizer in anaerobic digesters.**

As you consider comments on this round of rulemaking, RAE would like to offer feedback for your consideration.



Carbon Intensity

Roeslein Alternative Energy applauds CARB's commitment to reducing carbon and is pleased to see a proposed reduction target of 30%. **However, we recommend a more progressive carbon intensity (CI) reduction to at least 40%, which would be more in line with the emissions reductions necessary to reach near-term benchmarks. If 40% cannot be achieved, we recommend a progressive carbon intensity (CI) reduction to 35%, as set forth in Alternative C which CARB put forth in its presentation in the November 2022 LCFS workshop. Adopting this Alternative would enable California to meet the emissions reductions necessary to reach near-term benchmarks. We note that many other stakeholders have expressed support for the 35% target reduction by 2030.**

We would suggest for 2024, that the carbon intensity target be increased by 5% (to 16.5% total) in order to absorb excessive banked credits then linearly increased to 40% from there and implement an automatic adjustment mechanism going forward such as increasing the next annual increase if the banked credits increased in the prior year.

Further, as proposed by CARB in slide 25 of the February 22nd workshop presentation, RAE agrees that a near-term step-down in compliance target stringency would ensure a steady price signal for credits in the market to support ongoing investment as mentioned in the presentation. In the February 22nd workshop presentation, CARB included the concepts of changing the way RNG is treated under the LCFS, both as to phasing out the Avoided Emissions Credit (AEC) and imposing deliverability requirements on RNG produced and injected into the pipeline outside of the western gas grid. If CARB instead adopts Alternative C, there would be no changes to either the AEC or which RNG can generate LCFS credits.

Book & Claim

While we are grateful for CARB's leadership on environmental matters, we are troubled to see CARB's proposal in the workshop that would effectively cut many US companies out of the California LCFS by limiting Book & Claim only to projects connected to the western United States.

CARB has a well-earned reputation and legacy as a visionary pacesetter for the kind of change that begins at home in California but ultimately drives environmental policy across the country. Though RAE is pleased to see some states establish their own LCFS programs, there are still too few and California remains the gold standard other states strive to meet. Currently, best practices for some renewable natural gas producers in states that do not have their own LCFS is to participate in the robust



California market, essentially converting the RNG they put into an interstate pipeline in their state into California LCFS credits that can be purchased by obligated parties. In this regard, California drives the growth of low-carbon fuels nationwide by providing incentives to RNG producers. Losing access to the California market for non-western RNG producers would be a major setback to national adoption of low-carbon fuels and low carbon fuel standards.

Forward-looking entities operating outside of California have looked for ways to connect their renewable energy initiatives to the standards that are set in Sacramento, whether that is through state legislatures adopting regulatory policies based on the LCFS or businesses connecting their projects directly to the LCFS. In this way, these organizations are catalysts for broader adoption of policies inspired by CARB nationwide.

Therefore, while the changes to the Book & Claim program proposed by CARB last month may prove beneficial to California companies, they will have the unintended consequence of derailing billions of dollars of planned investments in RNG projects east of the Rockies and undermine confidence in CARB's technology and science-based implementation. Further, for companies that rely on Book & Claim to validate the stability of credit markets like the LCFS for future application in other states, CARB's proposed modifications would have a limiting effect on the momentum that is seen around the country for programs modelled after the LCFS and could risk reviving the circa 2015 legal stay of the LCFS over program structuring that appears intended to disproportionately disadvantage interstate commerce.

In addition, while the idea behind limiting Book & Claim to projects on the Western pipeline is to reduce the abundance of credits on the market, thereby increasing credit prices, CARB's proposal to significantly increase CI reduction targets is intended to accomplish the same goal. Thus, the limitation on Book & Claim to western projects would disincentivize renewable natural gas production nationwide in the name of achieving credit pricing goals in California that can be reached through other means.

Further, we recommend updating LCFS rules to allow book & claim for onsite power generation for charging medium and heavy-duty EV fleets fueled by directed biogas RNG. Opening up this pathway will directly support Governor Newsom's Executive Order N-79-20, which established a target where 100 percent of medium and heavy-duty trucks are zero emission vehicles by 2045, while also eliminating the need for diesel backup generators at EV charging facilities. One of the biggest challenges with deployment of fleet EV charging facilities is that they require a large amount of capacity, and transportation infrastructure upgrades that can take up to 5 years to complete. Allowing book and claim for directed biogas RNG for power generation powering medium and heavy-duty EV



fleets would not only accelerate the State's transportation electrification goals, but it would also allow biogas producers to access this growing market.

We strongly urge CARB to leave Book & Claim unchanged. Existing projects and others in development would risk becoming stranded assets, with associated damages, and CARB would have shaken the foundation of the LCFS with a stroke of pen. This risk will prevent participants from following through on projects in and outside of California by backtracking on Book & Claim.

Companies that rely on Book & Claim to drive the growth of renewables in other parts of the country have billions of dollars earmarked for projects that hinge on the California credit market being available to them. These projects all divert methane emissions away from our skies and into pipelines. An abrupt cessation of access to the LCFS for these initiatives would not only hurt the RNG market outside California but worse, would eliminate a major incentive that drives our national pivot away from fossil fuels.

Avoided Emissions Credits

Roeslein Alternative Energy strongly opposes a decision to phase out avoided emissions credits (AECs). This incentive-based approach has proven highly successful, and we encourage CARB to not limit crediting until another incentive is in place. This is another area where CARB is deviating from science-based implementation and its own precedents under the carbon offset protocol and the LCFS to recognize methane emissions, one of the most potent GHG.

CARB should clarify that additional types of livestock manure, such as chicken and beef cattle manure, can obtain an avoided emissions credit (AEC) and confirm treatment of deep pit swine facilities as anaerobic. While we believe the current Tier 2 process is sufficient for a user to develop and CARB to approve avoided emissions credits for feedstocks such as poultry and beef cattle manure, project developers and users may benefit from further regulatory clarity with explicit statements of support by CARB.

CARB should add chicken and beef cattle manure to the new Tier 1 Calculator, which should be renamed Tier 1 Simplified CI Calculator for Biomethane from Anaerobic Digestion of Livestock Manure and amend the Livestock Offset Protocol (LOP) to include them. The scientific basis exists to do so in the document CARB used to create the LOP. We would also recommend changing the name of the Protocol to the LCFS Livestock Protocol.



A recent UC Davis analysis, *Meeting the Call: How California is Pioneering a Pathway to Significant Dairy Sector Methane Reduction*, states,

“ . . . misguided efforts to change course by forced coercion to pasture-based operations, direct regulation of dairy farms, or limitation on dairy digester’s incentives will not only fail to achieve the desired greenhouse gas emissions reductions but will exacerbate the problem by causing significant emissions leakage. Revenue streams that incentivize investment in biogas capture and beneficial use are critical. Phasing out of avoided methane crediting in the dairy sector would jeopardize existing projects, making them uneconomic in the long-term, and dry up investment capital for the additional digester projects sought by CARB to achieve the state’s ambitious and aggressive targets.” (<https://www.arb.ca.gov/lists/com-attach/91-lcfs-wkshp-nov22-ws-AWJWMVwvVWQGxwFt.pdf>)

Climate Smart Agriculture

We also encourage CARB to establish a process for expanding the scope of recognized climate smart agriculture (CSA) practices including soil carbon sequestration in future rulemakings. By recognizing CSA in CA-GREET and in LCFS pathways, CARB would take a leadership role in incentivizing climate-smart farming practices in all locations that grow feedstock for LCFS fuel pathways, build knowledge regarding the short and long-term effectiveness of various CSA strategies, and speed fulfillment of California’s aggressive decarbonization goals. Roeslein Alternative Energy advocates for synchronizing the LCFS program with USDA programs that support the adoption of perennial prairie and winter-hardy biogas crops and their utilization in anaerobic digestion systems.

Winter-hardy biogas cover crops, which are a potential crop-based feedstock grown on land typically devoted to another crop and grown during the base crop’s “off-season”, would have no impact to either land-use or the nation’s food supply. Winter-hardy biogas cover crops could generate crop-based transportation fuels from a feedstock not currently available. CARB should promote such innovation in farming and renewable fuels processing and creation rather than trying to limit crop-based fuels in California. As noted in the 2022 Scoping Plan, California “must continue to support low-carbon liquid fuels during this period of transition for the much harder sectors for ZEV technology such as aviation, locomotives, and marine applications”. Cover crop “biomass” can serve as an excellent substrate that can be used in anaerobic digestion, along with other organic feedstocks such as livestock manure and food waste, to produce renewable natural gas. RAE believes CARB should encourage and incentivize the use of cellulosic feedstocks from cover crops and perennial prairie by incorporating these feedstocks in both the LCFS and Tier 1 calculators.



Roeslein Alternative Energy appreciates the opportunity to comment. The primary issues identified in this document — an accelerated carbon intensity reduction target of at least 40%, keeping Book & Claim unchanged or allowing a longer phaseout of 9 years, keeping Avoided Emissions Credits in place, expanding the scope of CSA practices including encouraging and incentivizing the use of cellulosic feedstocks from cover crops and perennial prairie, and expanding the scope of additional livestock manures and deep-pit livestock manure storage structures— are key issues for our organization and company as we continue to provide leadership in this industry. We hope these comments and suggestions are helpful in the rulemaking and decision process.

Thank you for your consideration.

Sincerely,

A handwritten signature in blue ink, appearing to read "Chris Roach". The signature is fluid and cursive, with the first name "Chris" and last name "Roach" clearly distinguishable.

Chris Roach, President
Roeslein Alternative Energy