



The Honorable Liane Randolph  
Chair, California Air Resources Board  
1001 I St, Sacramento, CA 95814  
Sacramento, California 95814

October 16, 2024

**RE: Second 15-Day Package for the Low Carbon Fuel Standard Update**

Dear Chair Randolph and Members of the Board:

Clean Energy supports the adoption of the proposed update to the Low Carbon Fuel Standard (LCFS) and would like to express our appreciation for a thorough public process. CARB remains committed to a fuel neutral approach using the best scientific data to measure greenhouse gas emissions performance to ensure the cleanest fuels are used in our state.

While we do broadly support the LCFS update, there are a few constructive improvements that we believe will maximize carbon reductions, improve LCFS credit prices, and foster expanded low carbon investments:

**1. Carbon Intensity (CI) Benchmarks:**

The proposed CI benchmarks of 22.75% in 2025 and 30% in 2030 are not aggressive enough to support a 2045 carbon neutrality target, let alone a near-zero/zero emissions future. The LCFS is a nation-leading transportation decarbonization policy last updated in 2018, so the time to be bold and have sufficient ambition with the program is now, not in another 5-6 years.

As of Thursday, October 9th, LCFS credit prices were \$69 from a \$42 low earlier this year. The market really needs to possess a credit price at or above \$120 a credit to support project investment and meet program targets. This is especially the case for dairy digester projects to be built in years 2025-2029, which as proposed, only receive two crediting periods for avoided methane crediting. Low LCFS prices already impact project returns, putting project development on-hold (this has already occurred) and prevents existing projects from operating profitably.

**PROPOSED AMENDMENT:** CARB staff should recommend a more ambitious benchmark for 2030 that signals a minimum 35% target or a maximum 40% target to the Board. Not only will setting a more ambitious mid-term target send a necessary market signal to investors, it's also critical to curb global warming and support the program's overall viability.

## **2. Avoided Methane Credit (AMC):**

We appreciate CARB proposing to provide three (3) AMC crediting periods to legacy projects (“grandfathered”) certified prior to the adoption of the new regulation. This protects project investments made previously under the program that have seen project returns rapidly deteriorate under the current LCFS market environment, but we must also recognize that new projects need extended AMC length if they are going to be successful.

**PROPOSED AMENDMENT:** The AMC should not be limited to two consecutive 10-year crediting periods for new projects built between 2025-2029. This action may inadvertently stunt new dairy project investments that California needs to meet its SB 1383 goals. Most dairy projects require long-term agreements with farmers and front-end manure management programs/infrastructure projects to be built at the dairy. AMC crediting is essential to all of this, so reducing the crediting opportunity by one (1) period (10 years) changes the investment criteria, especially at smaller dairies. Unmitigated dairy emissions are one of the largest sources of methane emissions in the state, so removing the AMC tool used to combat these emissions may materially impact the market, especially amongst the smaller dairy facilities. Reducing AMC crediting periods is counterproductive to our climate goals, and therefore, we urge CARB to retain the three (3) crediting periods for projects pre- and post-certification of the regulation.

## **3. Four-To-One CI Penalty:**

Dairy projects are biological in nature and are impacted by many factors, including but not limited to, ambient temperature, energy input increases and/or decreases, cloud cover, manure quality, herd count, etc., which ultimately can adjust a project’s CI. When these types of natural changes occur, the operator of an anaerobic digester will manage the fluctuating project CI and subsequent change in credits being generated. In the event the CI changes unfavorably (moves towards 0, i.e., from -250 to -200) resulting in an over-generation of credits, the appropriate step is to “bank or inventory” these credits in your LCFS LRT account for retirement through the Annual Fuel Pathway Reporting (AFPR) process. This is the normal course of operation and best practice in the industry.

Unfortunately, the proposed regulation would apply a four-to-one penalty to the project if the “operational CI” moves unfavorably compared to the credit generating CI. The four-to-one penalty concept is taken from Cap-and-Trade regulation which levies the penalty against an obligated party that falls outside its threshold, but a low CI project in the LCFS, like a dairy farm, is not an obligated party. To our knowledge, there is no precedent to use a Cap-and-Trade like penalty in the LCFS and doing so would have a material impact on the market.

As an example, and for illustrative purposes only, a 182,500 MMBtu per year (1.46M GGE) dairy project with a CI of -250 would generate approximately 57,232 credits per year. Assuming the project had operational changes resulting in an AFPR CI of -200, the effective credits would be 48,527. But because the LCFS only allows you to change your CI in the LRT system once per year, the project over-generated 8,705 credits. Under the proposed four-to-one penalty, the project would retire the 8,705 credits in the LRT system and then pay a penalty to the state which would be equivalent 8,705 credits x 4 x an assumed LCFS credit price. At a \$60 LCFS the cost is

\$2.08M and at a \$120 LCFS the cost is \$4.17M. This undoubtedly creates massive exposure and risk to the project with no real net environmental benefit to the state.

Because the four-to-one penalty is so severe, the only opportunity to mitigate it would be to leverage the Margin of Safety (“MOS”) mechanism in the regulation which allows you to apply an additional CI adder to your official CI score. A project may have a certified CI score of -250, but the owner of the facility may elect to apply a 50 CI MOS yielding an effective credit generation score of -200. Again, this provides no net environmental benefit to the state of project, but ensures the project is not left with an egregious penalty by generating at a low CI than the AFPR CI.

The material downside of being conservative through a MOS is that any “true-up” credits due back to the project, i.e. the MOS CI is -200 but the AFPR CI is -225, means you will not get those credits back for nearly two years. This results in long-term revenue deferral and LCFS price spread risk at the project.

**PROPOSED AMENDMENT:** CARB should eliminate the Four-to-One penalty as it provides no environmental benefit to the state and only encumbers a project with more financial risk and liability. If the proposed penalty stays, projects will be ultra conservative with their CI and forced to wait nearly two years to get their “true-up” credits after going through the AFPR and verification process. The state will not realize the actual emissions reductions occurring at the projects as they occur.

#### **4. Automatic Adjustment Mechanism (AAM):**

**SUPPORT:** We support the proposed change to the AAM trigger to using data from the most recent four quarters of reporting.

**PROPOSED AMENDMENT:** While we appreciate that CARB is keeping the AAM as a tool to be enacted in 2027, we believe the AAM would better serve the market if it could be applied immediately upon the LCFS Update’s implementation versus waiting to 2027. This is exemplified with the credit price recently hovering around the mid- to high \$60s in direct reaction to the release of both “15-day Packages.” The credit bank continues to build due to lower carbon fuels like renewable diesel expanding in the program, so implementing the AAM sooner will help work down the bank and increase pricing.

We strongly believe the AAM should be triggered as early as 2025 if the credit bank is awash with credits (i.e., the credit build is 2.5 times larger than the credit draw in any given quarter). This mechanism would dynamically respond to a potential future event where there is a significant underestimation of CI reductions in a given year. If left unaddressed or ineffective, the program cannot raise credit prices to levels private capital needs to further invest in low carbon fuel projects.

#### **5. Book-and-Claim:**

Book-and-claim is successfully contributing to reduced amounts of carbon and avoided methane emissions and we support CARB’s position to protect it. It is the preferred method for delivering

RNG in North American clean fuel programs, including EPA's Renewable Fuel Standard,<sup>1</sup> the Canadian Clean Fuel Regulation, the Oregon Clean Fuels Program, and the Washington Clean Fuels Program, as well as for electricity and hydrogen projects. Gas utility procurement programs for RNG also primarily use similar concepts, and Europe's Renewable Energy Directive requires book-and-claim for successful RNG project buildout in the European Union.

The second 15-day package includes a new proposal that if the number of unique Class 3-8 ZEVs reported or registered in California exceeds 132,000 ZEVs or NZEVs on December 31, 2029, then the entity reporting under bio-CNG, bio-LNG and bio-L-CNG pathways for CNG vehicles must demonstrate physical flow toward California after December 31, 2037 and not 2041. The first 15-day package required the Executive Officer to approve a "gas system map identifying interstate pipelines and their majority directional flow based on specified flow data by July 1, 2026", and therefore bio-LNG, and bio-L-CNG combustion in vehicles would need to demonstrate physical flow to California after December 31, 2037."

**PROPOSED AMENDMENT:** While a creative alternative since the previous proposal was difficult in which to collect mapping data, we are concerned that including classes 7-8 in this single broad threshold could inaccurately trigger this requirement when most ZEVs produced by December 31, 2029, could be light to medium-duty classes 3-6, which do not utilize much if any RNG. A trigger exclusive to classes 7-8 is a more accurate measurement of heavy-duty ZEV readiness and would better protect the RNG market and California's emission goals should estimates fall short.

We recognize both "15-day Packages" are a vast improvement over what was proposed over three years ago. We appreciate CARB's commitment to ambitious state goals and targets, backed by science-based and fuel neutral policies. The LCFS needs to be stringent and continue rewarding projects based GHG outcomes. Remaining true to these core concepts will ensure California leads the world in rapid transportation sector decarbonization.

Sincerely,



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Clean Energy



Ryan Kenny  
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<sup>1</sup> <https://www.biocycle.net/biogas-rng-projects/>