



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

May 10, 2024

RE: Potential Changes to the Low Carbon Fuel Standard

Dear Chair Randolph and Members of the Board:

I write on behalf of Clean Energy to emphasize our support for many of the proposed amendments to the Low Carbon Fuel Standard (LCFS) in the “Initial Statement of Reasons (ISOR)” and urge adoption of several additional amendments that will allow the state of California to effectively achieve its climate and clean air goals. The comments herein are in response to the staff workshop presentation on the LCFS held on April 10th.

The LCFS has displaced over 25 billion gallons of petroleum, reduced the carbon intensity (CI) of fuels sold in California by 12.5%, and resulted in approximately \$4 billion of annual low carbon investments. It is recognized as one of the most effective climate policies across the globe and is being replicated in other states and provincial governments. These successes, and the adoption of cleaner technologies to produce lower carbon transportation fuels should be celebrated, but it is no time to slow down and be less ambitious.

The program’s success has also resulted in a massive surplus of LCFS credits, largely in part due to widespread adoption of renewable diesel which is driving down prices and stalling new project investments that would capture avoided methane emissions and support zero emission strategies. California needs billions of dollars of investment to implement the California Air Resources Board’s (CARB’s) *2022 Scoping Plan for Achieving Carbon Neutrality* in the transportation sector. Low carbon projects, like renewable natural gas (RNG) facilities that capture methane at landfills, wastewater treatment facilities, and livestock farms, rely on LCFS revenues to be financed, built, and operated, and these projects are unable to be developed without a robust LCFS program.

As CARB staff indicated in the April workshop, the vast majority of all market participants are asking for more stringency in the program and an aggressive LCFS curve. We support the science-based analysis presented by CARB and urge you to please consider adopting the following amendments:

- **A 9% step-down in the compliance curve in 2025:** there are over 25 million credits in the LCFS bank and growing. To support a more ambitious program, CARB needs to adopt the

9% step-down in 2025 modeled by staff. Industry has provided analytics justifying an even more aggressive step-down in 2025, so the 9% step-down is the minimum that should be done. Without it, the credit bank will not reduce fast enough and we will be stuck in a depressed LCFS price environment.

- **Auto-Acceleration Mechanism (AAM):** allow the AAM tool to be used annually starting in 2025 if data confirms that the credit bank drawdown is occurring too slow (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. A more stringent and necessary target would be established to help: (A) avoid large credit bank builds, (B) push credit prices up that are currently at an all-time low of \$48.75; and (C) help deter some low carbon fuel producers from converting facilities back to fossil fuel production as we are witnessing at one facility in Mobile, Alabama¹.
- **Compliance Curve:** we urge CARB to set an ambitious compliance curve course with a minimum 9% step-down that immediately draws down the credit bank and ensures a steady market to 2030. ICF forecasts that the program will have a bank of about 29-30 million credits by the end of 2024² and suggests that the currently proposed CI step-down of 5% will slow the bank build by about 50% compared to previous years. However, the credit bank is still likely to grow by nearly 4 million credits by the end of 2025 and therefore a CI reduction of 25% in 2025 is likely needed to ensure that the credit bank reverses and is drawn down to a level that is in line with a credit bank of only two quarters' worth of deficits.

This level of stringency, while seemingly high, is likely what is needed to achieve CARB's stated intent of correcting for the "near-term over-performance" of the program."³ We are also supportive of at least a 35% CI reduction target by 2030. Our industry's extensive quantitative modeling⁴ concludes that implementing a 41% CI reduction would increase the current approximate \$52 credit price to \$100-\$120 by the end of 2025 and maintain at least that price through 2030, thereby sufficiently supporting investment.

The primary reason for the substantial surplus in credits is the increasing supply of renewable diesel, which EIA forecasts to top 6 billion gallons by 2026. Several in-state projects are projecting to operate at full capacity by year-end and additional projects are coming online. This is positive as it displaces fossil diesel supply, but without a compliance curve change and more stringency in the program, the credit bank will continue to increase, prices will remain low, and the LCFS program will effectively be a refiner's program.

¹ "Vertex Energy to 'Pause' Renewable Diesel Production at Alabama Refinery – OPIS," May 9, 2024, [Vertex Energy to 'Pause' Renewable Diesel Production at Alabama Refinery -- OPIS - MarketWatch](#)

² "Analyzing Future Low Carbon Fuel Targets in California; Response to Staff Report," Page 3, ICF, February 2024

³ "Analyzing Future Low Carbon Fuel Targets in California; Response to Staff Report," Page 4, ICF, February 2024

⁴ "Analyzing Future Low Carbon Fuel Targets in California; Initial Results for Accelerated Decarbonization, Central Case," ICF, June 2023

The oversupply of credits in the market hurts existing project returns, limits new project development, and sends the wrong signal to investors. In fact, based on spot and futures markets, Wall Street believes California has lost its urgency to decarbonize transportation and the market has not reacted favorably to each proposal released thus far during the LCFS update public process. Investment banks are viewing and buying credits as distressed assets rather than proactively investing in low carbon projects that move California closer to its climate and clean air goals.

- **Pathway CI True-up:** this remains necessary to properly recognize the true environmental performance of all pathways. The certification of pathway approvals can take anywhere from 18 to 22 months which places a significant financial hardship on a project and those in the entire value chain. A project should be able to apply its actual CI performance retroactively to the start of a project. The project would be eligible to claim the full benefit of its project CI even when starting with the temporary pathway (also known as the project start up period).
- **Increased Pathway Processing Times:** we encourage CARB to move dairy and livestock sector projects from Tier 2 to Tier 1 pathways immediately so that all RNG projects are processed under a more time efficient process. Currently, a Tier 2 dairy pathway takes 18-21 months to receive approval of its Provisional CI pathway application. These capital intensive projects are left to generate credits based on a -150 CI Temporary Pathway (default) while waiting for approval, resulting in hundreds of thousands of dollars of revenue loss and lower project returns. Incrementally, the state is unable to recognize the true CI benefit of the project because it is being recognized at a default CI vs the actual project CI. As outlined in the LCFS regulation, this process is supposed to take approximately 6 months.
- **Remove Fixed-year Phase-out of Avoided Methane Crediting:** removing this from the proposed rule would prevent any dramatic reduction in LCFS market value that enables methane capture and beneficial use projects. Without that revenue stream and market certainty, projects such as dairy digesters will not be able to be financed or implemented post-2030. The development of dairy digesters is widely recognized by the California Air Resources Board⁵ and the Legislative Analyst Office⁶ as the most productive and cost-effective climate investment currently being implemented. Without avoided methane crediting under the LCFS, new projects will not be developed, and existing projects will not remain economical and will cease operating.
- **Four-To-One CI Penalty:** we do not recommend CARB adopt a penalty mechanism for CI changes at a project. Projects are biological in nature and can experience changes in CI due to many factors, including but not limited to, ambient temperature, energy input increases and/or decreases, cloud cover, etc. When these types of natural changes occur, the operator of the low carbon project, like an anaerobic digester, will properly manage the fluctuating

⁵ California Air Resources Board, *California Climate Investments 2022 Mid-Year Data Update*, https://ww2.arb.ca.gov/sites/default/files/auction-proceeds/ci_2022_mydu_cumulativeoutcomes.pdf (page 4).

⁶ Legislative Analyst Office, *Cap-and-Trade Spending Overview*, March 30, 2023.

<https://sbud.senate.ca.gov/sites/sbud.senate.ca.gov/files/230238LAO%20Cap%20and%20Trade.pdf>

project CI and credits being generated. In the event the CI changes unfavorably resulting in an over-generation of credits, normal course of operations is to bank these credits for retirement through the Annual Fuel Pathway Reporting (AFPR) process.

Unfortunately, the proposed regulation will apply a four-to-one penalty to the CI if it moves unfavorably to the credit generating CI. Because of this, an operator will be forced to apply a very conservative margin of safety to the CI of their project, thus reducing its quarterly revenues. As it stands today, the pathway approval process takes nearly two years to complete, resulting in lower revenues at the beginning of a project and now you will also see lower revenues during a project while it goes through the AFPR process, which can take up to two years. This proposed change will not provide any CI emissions benefit to the program and puts additional financial strain on low carbon investments.

The success of the LCFS is due to ambitious state goals and targets, backed by science-based, fuel neutral policies, along with a broad portfolio of clean fuel stakeholders working together to decarbonize California's transportation sector. The LCFS needs to double-down on its aggressive state goals by being more stringent and continuing to reward projects based GHG outcomes. Remaining true to these core concepts will ensure California leads the world in rapid transportation sector decarbonization.

Sincerely,

A handwritten signature in black ink, appearing to read 'Todd R. Campbell', with a stylized flourish at the end.

Todd R. Campbell
Vice President, Public Policy & Regulatory Affairs
Clean Energy