AEMETIS

VIA ELECTRONIC FILING

August 27, 2024

Matthew Botill
California Air Resources Board
1001 I Street
Sacramento, California 95814

Re: Aemetis, Inc. Comments on Low Carbon Fuel Standard 15-Day Amendments

Dear Mr. Botill,

Aemetis, Inc. submits these comments to the California Air Resources Board (CARB) in response to the August 12, 2024, Notice of Public Availability of Modified Text and Availability of Additional Documents and/or Information for the Proposed Low Carbon Fuel Standard (LCFS) Amendments (15-Day Package).

Aemetis, Inc. is a California based Renewable Natural Gas (RNG) and renewable fuels company focused on the production of low and negative carbon intensity products that replace fossil fuels. Aemetis is the state's largest renewable ethanol producer and is operating and constructing an extensive network of dairy digesters and interconnecting pipelines delivering negative carbon intensity (CI) RNG for truck and bus fleets throughout California. Additionally, Aemetis has been permitted to build a 78 million gallon per year Sustainable Aviation Fuel (SAF) production facility and Carbon Capture and Underground Storage (CCUS) well near Modesto, California.

We applaud CARB's leadership in creating groundbreaking policies that have become a model for other states and countries in the battle to reverse climate change. From the beginning of this century to present time, CARB has shown how the collaboration of stakeholders, both public and private, can bring about change that was once unimaginable.

Aemetis has been a significant contributor and supporter of the LCFS for almost 14 years and has committed to spending nearly one billion dollars to build new or expanded biofuel production facilities in California over the next few years. Because of CARB's innovative programs and policy leadership, we have embarked upon a very ambitious expansion plan that will allow us to contribute to both existing and future low carbon fuel markets. In short, we are "all in" on the future of the LCFS and intend to play a meaningful role in its success.

Key to this ambitious future is the ability for our company, our customers, and our investors to rely upon consistent policies from CARB. As sure as the LCFS cannot survive without robust investment from the private sector, private investment cannot be sustained if programs and policies do not allow for markets to mature, investments to be recouped, and policy objectives to be met. This unique compact requires shared objectives, and a steady, reliable path to outcomes.

It is in this spirit that we offer our comments and suggestions as you consider the next chapter of the LCFS. Much is at stake in the coming months, and we strongly encourage CARB to keep all perspectives in full view and weighted fairly as you embark upon this critical task.

- We support CARB's approach to expanding the programmatic targets in the 15-day package. The proposed expansion recognizes that without immediate action, the carbon market will continue to languish with low targets and an oversupply of credits. This is critical as most investments already made or contemplated for the future require a higher LCFS price to merely break even, much less become profitable. The current paradigm has resulted in investors holding back, stalling projects, reconsidering future investments, or looking to other states or countries for alternative strategies. Without aggressive action, this will be catastrophic to the LCFS and similar programs that require large capital investment to move forward. **While the proposed 9% near-term-stepdown for 2025 is a clear improvement over the prior proposal, we believe that adjusting the stepdown to 10.5% - 11.5% will prove more effective. The lack of market response to CARB's proposed 15-day rule on this topic clearly demonstrates that the increase does not go far enough, nor is the suggested >$130 credit price credible**. We encourage CARB to adopt a higher stepdown.

- The 15-Day Package continues the proposed timeline for implementing the Auto Acceleration Mechanism (AAM), such that 2028 remains the first year for which the AAM can amend CI reduction targets. This is unreasonable given the current credit oversupply and corresponding market price. Without near-term action, we fear that the current low LCFS price will simply extend for three or more years, creating even more doubt about the program's long-term viability. **We recommend that 2025's performance should be able to trigger the AAM. A 2025 data-year triggering would be able to impact CI targets in 2027.** The AAM should trigger as early as possible as a backstop if the step down is not sufficient to address the current credit oversupply.

- Similarly, **a <u>greater than</u> 30% reduction in CI by 2030 is not only warranted, but also achievable** and in keeping with the overall past performance of the LCFS. Biofuels have far exceeded GHG reduction targets set by CARB, and with the influx of additional fuels into the portfolio, it is not mere speculation that the market will respond once again. For true progress to be made, **CARB should not allow the program to be hampered by obligated parties who are rewarded with longer time periods and slower progress. We strongly support a CI reduction of 40% by 2030.**

- **We strongly support the 15-day package proposal of a full credit true-up after Annual Verification for RNG.** Using a full true up to verified actual CI performance for all pathways (temporary, provisional, and fully certified) makes good sense given the changing nature of bioreactors, which are sensitive to changes in weather and operating conditions. For this reason, **however, we are opposed to the arbitrary proposal in the 15-Day Package retains a "4-to-1" penalty for the case where a verified CI is higher than the certified CI.** This is unnecessarily punitive and does not follow science. It is not only conceivable but likely that CI changes will occur year-to-year due to conditions beyond the producer's control (i.e., weather). **If the verified CI is higher than the certified CI, the project should simply repay CARB for any excess credits claimed, and not be subject to further enforcement liability** (unless there is misreporting etc.).

- **The 15-Day Package proposal reducing the total number of crediting periods for avoided methane emissions for some projects breaking ground before January 1, 2030, from three to two is bad policy, and could likely result in existing projects breaking covenants with debt holders.** As previously mentioned, developers and investors/lenders based significant financial decisions on CARB's stated policy – a policy that was reaffirmed and encouraged by CARB leadership for years. Changing the rules in the middle of the game will not only discourage future investment in RNG and other fuels, but it could also likely lead to loan defaults and financial distress for investors, developers, and dairy owners. Avoided methane crediting is a critical part of the economic formula that allows developers to seek – and repay – investors and lenders. **No serious alternative to avoided methane crediting has been put forward, and until a reasonable replacement or alternative strategy is established and discussed, no change should be made.** Shortening and eventually eliminating this credit will likely result in backsliding, leakage within California and to neighboring states, and millions of dollars of stranded assets. Moreover, progress made in methane remediation will be lost – without an alternative. **We urge CARB to eliminate this provision from the 15-day package.**

- **We strongly encourage CARB to immediately adopt a process to implement a15% blend allowance for bioethanol.** California is the only state in the nation to restrict ethanol blending to 10%[1], effectively imposing a 90% mandate for petroleum-based gasoline. This is illogical as ethanol is a cleaner burning fuel than gasoline. An earlier study commissioned by CARB[2] found that adopting E15 in California could also provide significant environmental benefits, cutting emissions of tailpipe pollutants—like particulate matter and carbon monoxide—that cause air quality and human health problems. According to the Renewable Fuels Association[3], if all gasoline in California in 2022 had been E15 instead of E10, the state would have seen a 450-million-gallon reduction in petroleum consumption and additional GHG savings of 2.2 billion metric tons, based on CARB's own data.

  Furthermore, a recent UC Berkely/US Naval Academy study indicates that moving to E-15 will save California motorists approximately $0.20 per gallon, or about $2.7 billion per year[4]. All required testing for E-15 in California has been completed, and there is no reason to further delay its implementation. Until California vehicles have been converted to hybrids, EVs, or other technologies, it is antithetical to the LCFS for California to continue a 90% fossil fuel mandate, which only benefits petroleum producers.

- Finally, in section 95482(a), staff proposes to remove "Fossil Jet Fuel" from the list of transportation fuels that the LCFS applies to. **Aemetis does not support this change**

[1] Montana becomes 49th state to approve the sale of E15 | Ethanol Producer Magazine
[2] E15_Final_Report_7-14-22_0.pdf (ca.gov)
[3] RFA Letter to CARB re E15 10-3-23.pdf (d35t1syewk4d42.cloudfront.net)
[4] E15 in California Initial Report (d35t1syewk4d42.cloudfront.net)

and believes that it will delay the adoption of SAF by air carriers in California. Rather than stipulating that the rule is faulty because it does not obligate air carriers to transition to SAF (but rather purchase credits), we recommend that staff revisit the proposal to make such a requirement and set a timeframe – as has been done with other obligated parties. Air transportation is a significant source of $CO2$ emissions, and it escapes logic that this sector would be excluded from the LCFS due to a faulty proposal or insufficient clarity on the transition. **We strongly CARB to reassess this change and include Fossil Jet Fuel in the LCFS**. By deferring this change, it is less likely that air carriers will move to SAF in a reasonable timeframe. Additionally, the need for in-state production of SAF will diminish, thus reducing or eliminating investor interest in supporting California based SAF production. Production facilities take years to permit and construct. **California will be woefully behind other states[5] and the European Union[6] in adopting incentives or requirements for air carriers to adopt SAF.**

Aemetis sincerely appreciates the opportunity to comment on the proposed 15-day rule. Our goal is to be constructive, and as one of the leading biofuel companies in California, we hope that our comments are taken in the spirit of collaboration with CARB. We understand that this process is challenging, with many different stakeholders advocating for positions that are often at odds. We trust that the CARB staff and Board will carefully consider the inputs and implications of these viewpoints upon the ultimate policy that is adopted.

Thank you for your dedication to this task, and please do not hesitate to contact us if you have any questions or require additional information.

Sincerely,

Andy Foster
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[5] From Legislation to Lift-Off: State Support Powers Sustainable Aviation Fuel Growth (twelve.co)
[6] European Union Aerospace and Defense Sustainable Aviation Fuel Regulation (trade.gov)