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September 19, 2022

Dr. Cheryl Laskowski,
Branch Chief, Low Carbon Fuel Standard Team
California Air Resources Board
Submitted via LCFS Comments Upload Link

RE: Comments on "Potential Changes to the Low Carbon Fuel Standard"

Dear Dr. Laskowski:

Thank you for the opportunity to comment on the California Air Resources Board's (CARB) public workshop on Potential Changes to the Low Carbon Fuel Standard (LCFS). Gevo, Inc. (Gevo) supports this highly successful program and encourages CARB to be innovative in its life-cycle assessment (LCA) approach, specifically in recognizing all the carbon reductions associated with modern-day agriculture.

Gevo's mission is to transform renewable energy and carbon into energy-dense liquid hydrocarbons. These liquid hydrocarbons can be used for drop-in transportation fuels such as gasoline, jet fuel, and diesel fuel, that when burned, have the potential to yield net-zero greenhouse gas emissions when measured across the entire life cycle of the products. Gevo uses low-carbon renewable resource-based carbohydrates as raw materials and is in an advanced state of developing renewable electricity and renewable natural gas for use in production processes. Gevo's production process results in low-carbon fuels with substantially reduced carbon intensity (the level of greenhouse gas emissions compared to standard petroleum fossil-based fuels across their life cycle).

Establishing carbon reduction markets is one of the fastest ways to reduce climate change while building a new industry. The California LCFS is a prime example of a market-based program that has successfully reduced transportation emissions, exported carbon reductions to other states, and built the renewable fuels industry. Sustainable aviation fuel (SAF) is a product just beginning to benefit from the market-growing forces of the LCFS, and we encourage CARB to expand the compliance curve to provide our industry with a market for years to come as we scale up to meet California's demand.

Growing this market-based approach by including climate-smart agriculture will also assist California in meeting its climate change goals. While considering potential changes to the LCFS, CARB should consider a modification to the CA-GREET 3.0 model to count all carbon within a fuel's life cycle. This includes the carbon benefits of reduced tillage practices, cover crops, low carbon fertilizer, etc. Counting all carbon reductions through

regenerative agricultural practices is the most complete and accurate LCA and incentivizes carbon reductions beyond California.

Gevo engages with farmers to track their reduced-tillage practices to establish a future market and create the lowest carbon-intense fuel possible through an ethanol to jet process. We are developing and utilizing a system called Verity Tracking to capture this farm-specific data through blockchain technology. Once entered in the Verity system, the information is expected to be auditable, traceable, secure, and immutable. By developing this process and technology, Gevo is excited to incorporate the knowledge and information into future LCA models within the LCFS to fully count the carbon reductions associated with climate-smart agricultural practices. Gevo is ready to be an asset to CARB as it discusses this crucial area for future CA-GREET models.

Climate-smart agriculture is also an area of focus for the Biden Administration and the U.S. Department of Agriculture (USDA). In September of 2021, the USDA announced up to \$1 billion in grant funds as part of the Climate-Smart Agriculture and Forestry Partnership Initiative. Gevo is honored to be one of the recipients of this grant and will be the lead partner in the Farm to Flight Program. The grant, which has a ceiling of up to \$30 million, will work to create critical climate-smart market incentives for low carbon intensity corn as well as accelerate the production of SAF. Given this new USDA initiative and Gevo's existing Verity Tracking process, CARB will have significant data available to recognize climate-smart agricultural practices in the next CA GREET model.

Gevo's focus in these comments on agricultural practices and the need to count all the carbon reductions in production agriculture is aligned with our position on limits to crop-based biofuels within the LCFS. We do not support caps, reductions, or any other artificial barrier to carbon reduction or innovation within the LCFS. This program's very nature assesses a fuel's carbon intensity, values the fuel based on this score, and disincentivizes fuels that do not provide true GHG reductions. This feedstock agnostic approach works, and no other interventions are needed to limit biofuels in the system. Artificial and arbitrary limits on crop-based biofuels go against the market approach established a decade ago and will harm California's access to lower carbon liquid transportation fuels, including SAF.

Gevo encourages CARB to review indirect land use change (ILUC) assessments for crop-based biofuels. Gevo is available to provide our data and expertise in regenerative agriculture efforts to reduce the carbon intensity of our SAF. Our net-zero assessment utilizes the Argonne GREET model. Gevo believes Argonne GREET is the best available standard of scientific-based measurement for LCA models. We encourage CARB to fully follow Argonne GREET and update ILUC values for crop-based feedstocks continuously. California's ILUC scores should be updated to account for the more precise science the Argonne GREET model provides.

Gevo will utilize low CI H₂ and RNG for process inputs in converting carbohydrates to SAF. We support the ability to utilize book and claim RNG for both purposes, thereby

allowing the renewable fuels industry to reduce the carbon intensity of fuel for California significantly. Gevo also supports comments by the Renewable Natural Gas Coalition and adopts them here by reference.

Thank you for the opportunity to comment on the CARB workshops on "Potential Changes to the Low Carbon Fuel Standard." We look forward to participating in this program as Gevo grows the production of SAF and other biofuels.

Respectfully,

A handwritten signature in black ink, appearing to read "KH", is positioned above the typed name.

Kent Hartwig
Director of State Government Affairs



Gevo, Inc.