January 7, 2022

Ms. Cheryl Laskowski
California Air Resources Board
Industrial Strategies Division
1001 I Street
Sacramento, CA 95814

RE: World Energy Comments on the Public Workshop on Potential Future Changes to the LCFS

Dear Ms. Laskowski,

Thank you for the opportunity to provide written comments in response to CARB's LCFS workshop on December 7, 2021. I am writing on behalf of World Energy to endorse many provisions of the staff presentation from the workshop and encourage these provisions' further development.

World Energy is one of the most veteran biofuel companies in North America. It is a global supplier of biofuels, with five biodiesel production facilities and one California renewable fuel facility, totaling over 300 million gallons of annual renewable fuel production capacity among its assets. The California facility located in Paramount, and produces renewable diesel, sustainable aviation fuel, and renewable naphtha. The facility is currently undergoing a conversion and upgrade to increase production capacity to 350 million gallons of fuel per year.

Since the December 7th workshop was an initial scoping session, we understand that the details of the proposed changes are still under consideration. World Energy would like to be a partner to CARB in thinking through these details. Listed below are the components of the staff presentation that will most impact our business, and our feedback for how these provisions can be developed to best bolster the market for low carbon fuels in California. All the items listed are of great interest to World Energy, and we encourage staff to further develop these concepts for future workshops.

Establish declining CI compliance targets post-2030, and potentially strengthen interim pre-2030 targets

A robust market for LCFS credits indicates that the production capacity for low carbon fuels, including liquid fuels and electricity, are growing as anticipated and now provide sufficient or excessive compliance options for obligated parties. In accordance with Executive Orders N-79-20 and B-55-18, the state must move farther, faster on climate action in order to provide better balance to supply vs demand and continue to encourage further investments in new, low carbon fuel production capacity.

Establishing stronger pre- and post-2030 targets will help meet the Governor's order and provide necessary steps to reduce the carbon intensity of the state's transportation fuels.

Allow for book-and-claim accounting of new-or-expanded low-CI hydrogen injected into hydrogen pipelines

Hydrogen is an important feedstock in the production of renewable fuels and producing lower carbon hydrogen could be more flexible under the LCFS. Incorporating this provision would provide that incentive to lower the carbon intensity of the feedstocks and inputs into transportation fuels and be in line with the intent of the program.

Support hydrogen refueling infrastructure for medium-and-heavy-duty vehicles

World Energy supports the inclusion and development of this provision. This inclusion adheres to the principles outlined within the workshop and of the program in general. Hydrogen refueling infrastructure will be another tool in California's toolbox to transition away from fossil-based transportation.

Reflect changes in technology and data

World Energy is supportive of the three updates proposed which would ensure that the LCFS is operating on new data with regard to lifecycle accounting, including: updating emission factors, incorporating new Tier 1 Calculator for hydrogen fuel pathways; and updating to a new version of the OPGEE model. This is in keeping with CARB's broad principles outlined on slide 11 of the workshop presentation to support exportability, harmonize with federal policy signals, and reflect changes in data.

Allow for preferential allocation of low-CI hydrogen to specific fuel pathways used for reporting

This is a priority issue for World Energy. Like the input of any lower carbon feedstock, lower carbon hydrogen could be preferentially utilized to lower a specific fuel pathway's carbon intensity. Currently, the LCFS reporting tool does not allow for the dynamic use of low CI hydrogen to match current market realities. Allowing for this allocation of hydrogen to a specific fuel pathway on a mass balance basis will align LCFS reporting with the growing interest in low CI hydrocarbon fuels.

Stakeholder proposals

CARB should:

- Re-evaluate default land use change carbon intensity values to better reflect current science and practices in agricultural production
- Consider individual regenerative agriculture practices, soil carbon and low carbon agricultural inputs from joint applicant agricultural sources in fuel pathways

- Consider allowing book-and-claim on process energy natural gas and electricity for fuel production.
- Consider allowing specific utility electric power carbon intensities rather than regional in the calculation of fuel pathways

These considerations would serve the broad principles for policy concepts that CARB identified at the beginning of the staff presentation. While these are large undertakings, each would be beneficial to the program

World Energy is encouraged by the ideas outlined in the staff presentation and looks forward to further engagement with CARB on the details of the provisions that will impact our business. We appreciate your time and consideration of our comments.

Sincerely,

Scott Lewis
Senior Vice President, Commercial