



August 5, 2022

Ms. Cheryl Laskowski
Branch Chief, Low Carbon Fuel Standard
California Air Resources Board
1001 I St.
Sacramento, CA 95814

RE: World Energy Comments on the July 7th LCFS Workshop

Dear Ms. Laskowski,

World Energy appreciates the opportunity to engage in the initial conversation to update the Low Carbon Fuel Standard (LCFS) regulation. Congratulations on a program that is thoughtfully designed to spur persistent reduction of carbon in the transportation sector. The LCFS has become a flagship program, with many other jurisdictions having adopted or considering the use of the LCFS to reduce their own transportation emissions. World Energy is proud to be an in-state example of the type of disruptive technology that the LCFS has inspired to fuel the transportation sector with near-zero carbon alternatives.

In response to the July 7th workshop, we wish to provide the following comments:

Program Targets

The proposal to accelerate LCFS targets both before and after 2030 is urgently needed in the renewable fuel industry. LCFS values are trading at low prices, indicating the success to-date of the program, and that CARB can be even more aggressive with its targets in the future. Allowing transportation fuels to contribute more to California's overall reduction targets is an important proposal, given the large share of emissions that are produced from transportation.

As to the specific carbon intensity percentage, World Energy supports the best available modeling of what is feasible by 2030, whether that be a 25 or 30 percent reduction target. Through 2045, World Energy will be supportive of the strongest possible target and will scale our business operations to meet CARB's ambition.

Crop-Based Feedstock Limitations

Staff raised the concept of whether to limit fuels based on their feedstock within the LCFS. This is a major proposal that would chart a new precedent within the LCFS, and could have many unintended consequences. Global commodity markets and associated land use are a complicated market with many related products and co-products, so specific cause and effect relationships are difficult to determine. To date, we have not seen any conclusive evidence that the first ten years of the LCFS program has driven

PARAMOUNT FACILITY

AltAir Paramount, LLC

14700 Downey Avenue, Paramount, CA 90723

P. 562.531.2060 | E. paramountquestions@worldenergy.net | W. worldenergyparamount.net

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land use change in the United States or abroad. CARB staff appears to be raising this question based on a Lark, et al study authored in 2022. We encourage CARB staff to carefully review the response letter that was authored by notable experts Farzad Taheripour, Steffen Mueller, Hoyoung Kwon, Madhu Khanna, Isaac Emery, Ken Copenhaver, and Michael Wang.¹

CARB has traditionally employed carbon intensity values to consider aspects related to land use. We submit that that is a better solution than limiting large categories of fuels that today make the LCFS a robust and successful program.

We would like to caution CARB that its interest in promoting Sustainable Aviation Fuel (SAF) for the hard-to-abate aviation sector might be curtailed with this proposal. Apart from World Energy, the SAF market is still in incipient stages. SAF will depend on a range of crop-based feedstocks and an overly broad limitation would be detrimental to the continued development of this sector.

About World Energy and Its Low-Carbon Products

World Energy is a global supplier of biofuels, with seven biodiesel production facilities and one SAF + renewable diesel (RD) facility, totaling over 300 million gallons of annual renewable fuel production capacity among its assets. Our SAF + RD facility located in Paramount, California is currently being converted to the world's most advanced clean energy facility that will produce approximately 350 million gallons of low carbon fuels per year with completion anticipated in late 2024. We have achieved this production in accordance with California's strict environmental permitting and while paying a living wage to our local workforce. This achievement is due in part to the Low Carbon Fuel Standard and the success of CARB's programs.

Among the other fuels World Energy produces, our SAF meets ASTM Jet A specifications and is widely used in commercial aircraft today, with the primary market at Los Angeles International Airport. Compared to conventional fossil jet fuel, SAF provides an immediate and increasing opportunity to decarbonize aviation, a sector that will be incredibly difficult to electrify by California's midcentury climate goals.

World Energy's SAF is a drop-in fuel providing near-term opportunities for reducing harmful air pollution in communities adjacent to airports. SAF has verified significant emission reductions of particulate matter (PM) and sulfur oxides (SOx), moderate reductions of carbon monoxide (CO) and unburned hydrocarbons (UHC). SAF yields significant reductions in the net life-cycle carbon dioxide (CO₂) emissions from aviation operations.²

¹ https://growthenergy.org/wp-content/uploads/2022/05/Response-to-Lark-et-al_b-May-2022.pdf

² "Sustainable Aviation Fuel: Greenhouse Gas Reductions from Bay Area Commercial Aircraft". Bay Area AQMD. October 2020. [saf-report-final-for-distribution-to-baaqmd-pdf.pdf](#)

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On July 22nd, Governor Newsom requested a plan to reach a 20% clean fuels target for aviation, a hard-to-decarbonize transportation sector.³ World Energy's production of a suite of renewable fuels in California positions us to support the Governor and CARB's decarbonation goals as well as contribute to the Biden Administration's goal of 3 billion gallons of SAF produced by 2030.

We appreciate CARB's hard work during this process, and look forward to continuing to support the LCFS regulatory update.

Sincerely,

A handwritten signature in blue ink that reads "Leeor Alpern".

Leeor Alpern
Senior Director of Government Relations and Public Affairs

³ Office of Gavin Newsom, July 22, 2022. <https://www.gov.ca.gov/2022/07/22/governor-newsom-calls-for-bold-actions-to-move-faster-toward-climate-goals/>

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