



**Biotechnology Industry Organization
Comments to the California Air Resources Board
On the Low Carbon Fuel Standard
Readoption Plan
February 17, 2014**

The Biotechnology Industry Organization (BIO) appreciates the opportunity to submit comments to the California Air Resources Board (CARB) on the Low Carbon Fuel Standard (LCFS) readoption plan (the readoption plan, or the plan).

BIO is the world's largest biotechnology organization with more than 1,000 members worldwide. Among its membership, BIO represents over 85 leading technology companies in the production of conventional and advanced biofuels and other sustainable solutions to energy and climate change challenges. BIO also represents the leaders in developing new crop technologies for food, feed, fiber, and fuel. BIO member companies represent many of the low carbon fuel producers that will supply the State of California with the fuels for LCFS compliance.

BIO and its member companies commend CARB for its openness, inclusiveness and transparency throughout the LCFS rulemaking process. In light of its representation on the LCFS advisory panel, BIO has appreciated the opportunity to guide and comment on CARB staff review of the LCFS regulation. BIO and its member companies have reviewed the recent LCFS plan and wish to provide comments.

BIO supports California's efforts to reduce the carbon intensity of transportation fuels and believes that biofuels can and must contribute significantly to this important objective. While we are generally supportive of the readoption plan, we do have concerns about certain aspects of it and its potential impact on the production, distribution and availability of low carbon fuels in the State of California. Please see below for our brief comments on these areas of concern.

Compliance Curve

Under the new compliance schedule, the majority of the reductions are set to occur in the last two years, between 2018 and 2020. This new schedule will thus reduce the amount of credits needed between now and 2018. Instead of having a deficit in credits in 2015, which would have likely occurred under the former plan, it now appears that it is not likely that there will be a credit deficit until 2018. Given current and expected low carbon credit prices, BIO is concerned that, despite CARB's apparent projections, the credit price now and over the next four years would not attract fuels generating significant credits. In fact, the new compliance



schedule under the readoption plan may slow down investment in new facilities that would produce the very low carbon fuels that CARB is expecting and which are needed for full LCFS compliance.

Reporting Requirements

BIO and its members are concerned that the intensified reporting requirements under the readoption plan could be particularly burdensome in time and cost to small and new low carbon fuel producers. BIO urges CARB take this concern into account as it works to finalize the readoption plan. CARB should make every effort to ensure that the new reporting (and other) requirements under the plan do not inadvertently discourage small producers or innovation. One way to accomplish this goal could be for the LCFS reporting requirements to be harmonized with other existing programs, including the Quality Assurance Plan under the federal Renewable Fuel Standard.

GREET Model

BIO recommends that CARB ensure that the final version of the plan provides for periodic updates to the GREET model to ensure that new feedstocks are added and accounted for in a timely manner. This will help to encourage new and innovative low carbon fuel producers under the program.

Denaturant Calculation

BIO opposes the change to the denaturant calculation under the readoption plan and urges CARB to reconsider it as it works toward adopting a final readoption plan. Under the previous LCFS plan, the denaturant calculation was a standard 0.8 in carbon intensity (CI) added. As such, it did not appear to have a significant impact on the overall CI. The new denaturant calculation under the readoption plan would have a significant impact on the overall CI, and it would place a greater disadvantage the lower the CI. For instance, as the CI of an ethanol pathway decreases, the denaturant effect would increase. For ethanol with a CI above that of the CARBOB CI, the effect is such that the denatured ethanol has a lower CI than the anhydrous ethanol. BIO is concerned about the percentage used for ethanol, and the assumption that the non-ethanol components are CARBOB and not already accounted for in the anhydrous ethanol CI. Under the new denaturant calculation, the effect could be as little as <1 or close to 4 CI points, with the greater impact on the lower carbon fuels.

Conclusion

BIO is generally supportive of the readoption plan, but has concerns as outlined in this letter with respect to the compliance curve, reporting requirements, GREET model, and denaturant



calculation. We respectfully request that CARB consider BIO's comments and recommendations as it works to finalize the readoption plan.

Sincerely,

A handwritten signature in black ink that reads "Brent Er." with a stylized flourish at the end.

Brent Erickson
Executive Vice President
Industrial and Environmental Section