



JOHN DEERE

Deere & Company
One John Deere Place
Moline, IL 61265

September 19th, 2022

California Air Resources Board
1001 I Street
Sacramento, CA 95814

Julian Sanchez
Director, Emerging Technology
SanchezJulian@JohnDeere.com

Richard Corey
Executive Officer

Liane Randolph
Chair

Rajinder Sahota
Deputy Executive Officer, Climate Change and Research

Cheryl Laskowski
Branch Chief, Transportation Fuels

Subject: Comments relating to August 18th, 2022 Public Workshop on Potential Changes to the Low Carbon Fuel Standard by Deere & Company

To the Low Carbon Fuel Standard team,

We thank the California Air Resources Board (CARB) staff for the opportunity to comment on the LCFS during this Pre-Rulemaking period. In a recent letter, we outlined three modes of action cited by CARB as important for John Deere's customers: (1) on-farm electrification; (2) healthy working lands; and (3) low-carbon fuels. For each of these modes, we can contribute substantive climate impact for California, especially with additional support and consideration from CARB. We see each of these modes of action as complementary and additive towards larger climate goals.

John Deere supports the recognition in the CARB Draft 2030 Scoping Plan of how vital our forests and soils are to climate mitigation, resiliency, and adaptation. Through our innovative products and solutions, we and our customers are actively contributing to this vision as part of our day-to-day operations.

Below we offer comments on specific topics of interest requested by CARB staff in their August 18th, 2022 workshop on Potential Changes to the LCFS.

Updating Emissions Factors Related to Crop Production

John Deere supports staff's plan to update emissions factors that are out of date or otherwise not in line with the most recent and defensible science. Crop production emissions factors, including Indirect Land Use Change, are an obvious opportunity for such an update. Argonne National Lab (ANL) has released five newer versions of GREET since the 2016 model that is the current basis for CA-GREET. Both farming practices and the scientific understanding of their impact on carbon emissions continue to evolve at a rapid pace.



JOHN DEERE

John Deere recommends updating to the most recent version of GREET, including the most up-to-date understanding of iLUC values, as well as creating a pathway to adopt new versions outside of a full regulatory update so that emissions factors can stay current with best scientific guidance.

Quantification of on-farm practices for fuels production

In addition to improvements contemplated in the Public Workshop, we recommend future improvements to the LCFS in one key area: inclusion in future LCFS policy of farm-level GHG accounting for biofuel feedstocks, whether produced in or out of the state of California. Emissions generated as part of growing feedstock for biofuel production are as engrained in the fuel carbon footprint as the processing of the feedstock, which is already included in LCFS calculations regardless of where the processing occurs. This sentiment was echoed by several commentors at the workshop.

John Deere would welcome the opportunity to demonstrate to Staff how the data collected by our precision agriculture equipment could be used to rapidly and reliably calculate farm-level carbon intensity, which could be aggregated and reported to CARB on behalf of participating growers.

Conclusion

John Deere looks forward to being an active participant in upcoming rulemakings around both the LCFS, as well as medium and heavy-duty off-road electrification. We would value the opportunity to work collaboratively with CARB on ways to include farmers as part of the solution to California’s climate goals, including sharing learnings and results from our ongoing field-level carbon intensity quantification demonstration projects.

Respectfully submitted,

Julian Sanchez
Director, Emerging Technology
Deere & Company