August 27, 2024

Chair Liane Randolph
California Air Resources board
1001 I Street
Sacramento, CA 95814

Re: Comments on the August 12th 15-day Package

Submitted electronically: https://ww2.arb.ca.gov//lispub/comm/bclist.php

Dear Chair Randolph and members of the California Air Resources Board:

Clean Fuels Alliance America (Clean Fuels)[1] and the California Advanced Biofuels Alliance (CABA)[2] appreciate the opportunity to provide comments on the 15-day package (Package) that was published on August 12th, 2024. Clean Fuels and CABA have been longtime supporters of the state's overall climate and air quality improvement goals and have collaborated frequently with CARB staff toward achieving those goals. We have been strong partners with California in its long-term efforts to decarbonize its transportation sector, with its vast portfolio of policies, regulations and incentives that target high priority zero emission technologies and the hugely successful Low Carbon Fuel Standards – the hallmark policy that champions a market-based approach to decarbonizing transportation fuels by being science-driven, fuel-neutral, technology-agnostic, and performance-based. CARB set out a lofty goal to reduce GHG emissions and the members of Clean Fuels and CABA responded swiftly and overwhelmingly to that call…with innovation and investment throughout the supply chain.

[1] Clean Fuels Alliance America (Clean Fuels) is the U.S. trade association representing the entire biodiesel, renewable diesel, and sustainable aviation fuel supply chains including producers, feedstock suppliers, and fuel distributors serving the on- and off-road applications, rail, marine, and heating oil markets. Made from an increasingly diverse mix of resources such as recycled cooking oil, soybean oil, and animal fats, the clean fuels industry is a proven, integral part of America's clean energy future.

[2] California Advanced Biofuels Alliance is a not-for-profit trade association promoting the increased use and production of advanced biofuels in California. CABA represents biomass-based diesel (BMBD) feedstock suppliers, producers, distributors, retailers, and fleets on state and federal legislative and regulatory issues.

Missouri Headquarters
605 Clark Ave
PO Box 104898
Jefferson City, MO 65110

800.841.5849

Washington, D.C., Office
1331 Pennsylvania Ave, NW
Suite 505
Washington, D.C. 20004

888.246.3437

cleanfuels.org

Overview

As of the Q1 2024 quarterly data summary, biodiesel and renewable diesel or biomass-based diesel (BMBD) make up an astonishing 73% of California's diesel pool. BMBD is the most successful fuel in meeting the LCFS reduction targets - representing 45% of the carbon reductions - more than electric vehicles, hydrogen, and RNG combined. Emissions of fine particulates and toxic air pollution have been reduced and local air quality has improved, especially in the Environmental Justice communities that are located closest to the transportation corridors where these vehicles are active. But now, after California has enjoyed 13 years of successful carbon reductions largely due to the use of BMBD, Clean Fuels and CABA are deeply disappointed that CARB is shifting away from what has made the policy successful in the past and towards a future that punishes selective fuels without cause.

On August 12, 2024, CARB released new proposed amendments to the LCFS following earlier changes released in December 2023 and an April workshop where staff explored additional options. Among the most important of the proposals to the BMBD industry are: 1) significantly increasing the program's carbon intensity (CI) targets between 2025 and 2030, 2) requiring that biomass used in fuel pathways must only be sourced on land that has not been cleared since 2008, 3) requiring that biomass must be produced according to best environmental management practices, and 4) restricting credit generation from biodiesel and renewable diesel made from soybean and canola oil.

In the Notice of Public Availability of Modified Text and Availability of Additional Documents and/or Information for the Proposed Low Carbon Fuel Standard Amendments (Notice), CARB claims that these modifications aim to promote zero-emission technologies and ensure that only waste oils are used to replace fossil diesel, but they provide no technical basis for their assertions. What the Notice fails to do is identify a critical problem or problems that exist in the current LCFS or the ISOR and then subsequently fails to identify why the proposals in the package can solve the problem(s).

CARB claims that these modifications are appropriate, given the state's transition to zero-emission technologies, but it is counter to the basic tenets of the LCFS as a technology-neutral, market-based program. Restricting access to specific fuels and/or feedstocks through an arbitrary cap will only decrease the options to meet the carbon intensity targets if the transition to ZEV does not live up to expectations. Furthermore, it leaves open the possibility that high-carbon fossil fuels will fulfill California's diesel needs. BMBD has played a leading role in reducing emissions to date and it should be allowed to continue to reduce emissions from the hard-to-electrify heavy-duty and off-road sectors. There is still work to be done and just two weeks ago, US Department of Agriculture Secretary Vilsack announced $32 million in Higher Blends Infrastructure grants: https://www.usda.gov/media/press-releases/2024/08/16/biden-harris-administration-invests-domestic-biofuels-and-clean to California companies, demonstrating that they are still committed to provide even more biodiesel to consumers.

Previous Comments

Clean Fuels and CABA are keenly aware of how significant this rulemaking is to its members and the clean fuels industry. We have actively participated throughout the workshops in the pre-rulemaking process to provide information and perspective on how staff's proposal may impact the industry. In addition to this comment letter, please refer to our previous comments submitted for the May 31/June 2 virtual meeting, the May 23 workshop on Auto-Acceleration Mechanisms, the February 22 workshop to discuss potential changes to the LCFS, and the April 10 workshop. The gist of our prior and current comments is this: CARB has utterly failed to prove with any reputable evidence or modeling its ostensible concerns about the use of vegetable oils inducing meaningful land use change, specifically deforestation, which were raised (again without solid evidence) by stakeholders with an all-electrification objective at the expense of other alternative fuels like BMBD that are actually achieving significant environmental and public health benefits now. These unfounded concerns continue to drive CARB's proposals that unfairly target the most successful carbon-reducing fuels in the LCFS.

Comments on the 15-day Package

Regarding the 15-Day Package released on August 12, 2024, Clean Fuels and CABA offer the following comments:

1. **Support for Increased Stringency**

   We strongly support the proposed near-term increase in stringency to a 9% CI reduction, rather than the 5% year-over-year increase outlined in the Initial Statement of Reasons (ISOR) proposal. The 9% reduction offers the greatest certainty for rebalancing the LCFS credit bank in the short term and is the chief reason this rulemaking should be finalized on November 8th.

2. **Concerns About the Proposed Sustainability Provisions**

   We are deeply disappointed with the inclusion of sustainability provisions in the 15-day Package as a guardrail against negative unintended consequences that have still not been justified. We raised concern over the inclusion of these vague and unfounded provisions in our comments to the ISOR and offered our assistance to help CARB staff craft reasonable provisions that could be amenable to the industry. While the Package contains some additional details about how these provisions will be implemented, beyond what was proposed in the ISOR, several critical questions remain, including but not limited to:
   - How is land designated under the USDA Conservation Reserve Program (CRP) treated under 95488.9(g)(1)(A)?
   - What is the criteria for the best environmental management practices under 95488.9(g)(1)(B)?
   - What certifications will be aligned with EU RED 2018/2001?

Because of the need for additional details, we recommend that CARB convene a working group that includes agricultural feedstock providers, feedstock processors, and biofuels producers, to assist in the development of workable sustainability guardrail provisions that answer the questions posed above. The timing of this working group is critical to facilitate decision-making that is appropriate for the targeted planting cycle. For example, planting decisions and investments for the 2025 crop are happening as soon as the 2024 crop is harvested. The crops planted in 2025 will become fuels in 2026 which means that farmers will need to start complying with proposed, not adopted rules – gathering field boundary GPS coordinates and existing farmland attestations – which is not reasonable.

Therefore, we strongly recommend that:

- The working group be convened in the second quarter of 2025;
- Phase One begin in 2027;
- Phase Two begin in 2029; and
- Phase Three begin in 2031.

3. Concerns About New ILUC Values

CARB's proposal includes potential revisions to the Table 6 ILUC values to increase ILUC values for feedstocks from regions with a high risk of land use conversion based on empirical evidence; however, CARB neglects to consider ILUC value revisions for feedstocks from regions with a *low risk* of land use conversion based on empirical evidence (e.g., North American agricultural production lands, including the U.S. and Canada, which are already subject to sustainability requirements).

   a. Over the course of the existence of both the U.S. Renewable Fuel Standard and the LCFS, domestic soybean oil production has grown to satisfy the demand for BMBD without compromising the supply of soybean oil for other uses or instigating land use change, as evidenced by Tables 1 – 3 below.

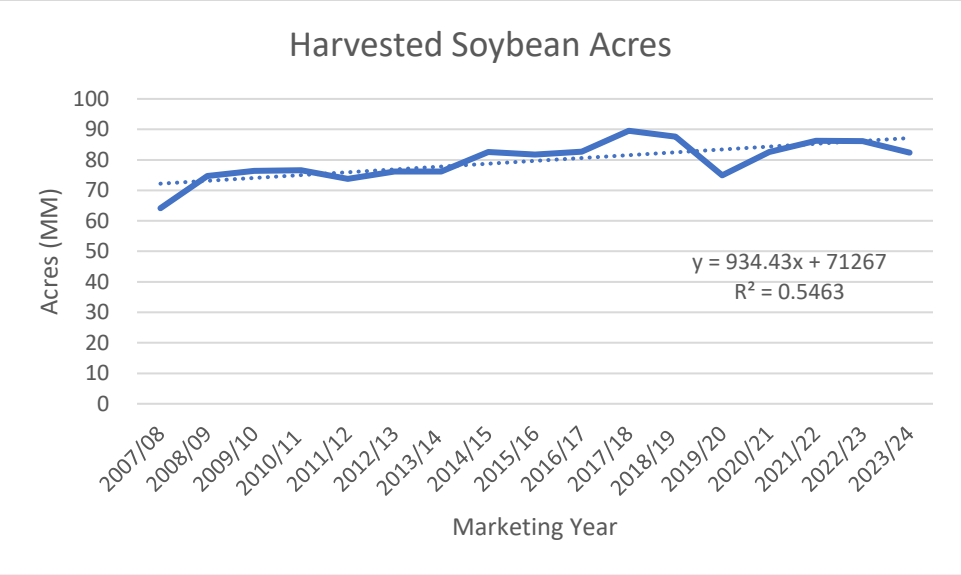

Table 1. Total U.S. Soybean Acres Harvested[3]

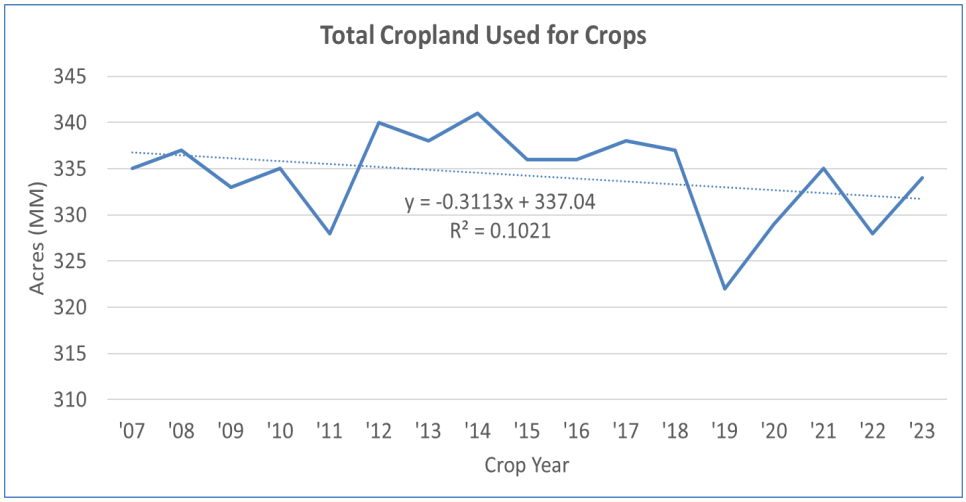

Table 2. Total U.S. Cropland Acres[4]

[3] https://www.ers.usda.gov/data-products/oil-crops-yearbook
[4] https://www.ers.usda.gov/data-products/major-land-uses/

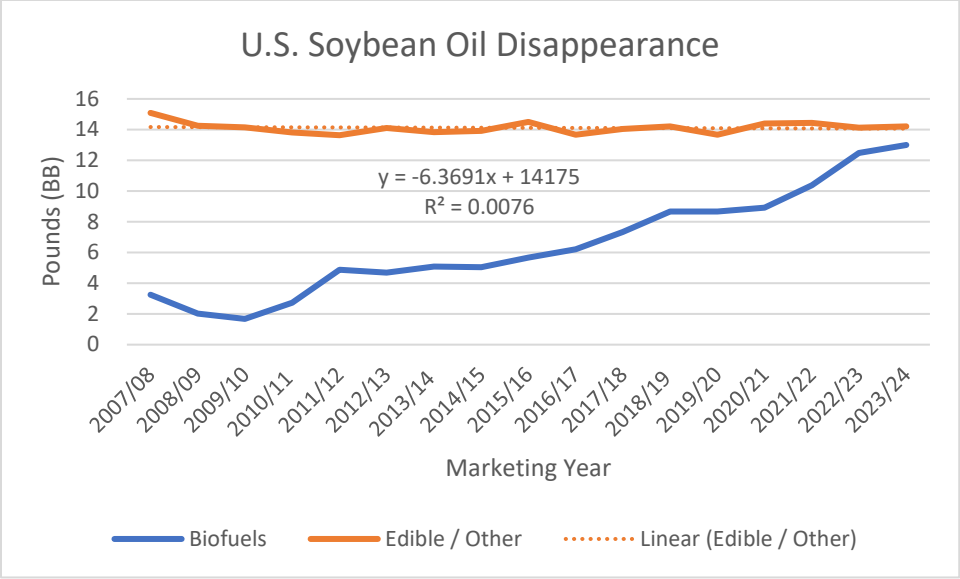

Table 3. U.S. Soybean Oil Use[5]

The added demand of these biofuels programs has been met by increases in yield of roughly 10 bushels per acre over the same time period as well as increased oil yields from each bushel of soybeans during processing. In addition to the overwhelming evidence that domestic soybean farmers do not generate high-ILUC risk feedstock, GTAP-BIO's modeling also reflects other trade and agricultural dynamics that have developed over the last ten years that should assuage CARB's concerns that ILUC values for crop-based BMBD should only go up.

b. The hypothetical ILUC value GTAP-BIO assessed for soy-based biodiesel back in 2015 when CARB last updated the modeling to incorporate the world's agricultural and trade dynamics as of 2004 was 29.1 g CO2e/MJ of fuel. Since then, GTAP-BIO has been updated several times to reflect the ever-evolving areas of global trade and agriculture such that soy-based biodiesel's hypothetical ILUC value is 9.1 g CO2e/MJ as of the global economy in 2014. ILUC cannot be observed on the ground, nor verified by empirical evidence, but GTAP-BIO nevertheless continues to model the potential induced effects of biofuel production and shows that U.S. soy-based biodiesel comes with a much lower risk of land use conversion than CARB previously considered since U.S. soy biodiesel is overwhelmingly produced from domestic soybean oil.

c. Moreover, we take issue with CARB's addition of countries of origin to the 2015 Table 6 ILUC values. GTAP-BIO models shocks of *biofuel* supply in predetermined countries. It does not model shocks of specific-origin feedstock-fuel combinations, or pathways, without specifically baking in

[5] https://www.ers.usda.gov/data-products/oil-crops-yearbook

those assumptions to the model *a priori*. While in practice, certain pathways may model fuel production with likely feedstock origins (e.g., U.S. soy), GTAP-BIO does not dictate feedstock origin in its modeling.

This is best exemplified by using two hypothetical canola biodiesel scenarios where one is produced in the U.S., and another is produced in Canada. For the U.S. scenario, GTAP-BIO will probably source the canola oil from the U.S. first and then most likely source additional gallons from Canada, as needed. For the Canadian scenario, GTAP-BIO will probably source the canola oil from Canada first and may potentially never tap into U.S. canola oil because it can satisfy its needs domestically. Each of these hypothetical scenarios would result in different ILUC values because each country has distinct supplies of feedstock, and their trade dynamics are unique. As such, the knock-on effects GTAP-BIO models depend on those distinctions and must be considered carefully. These differences would be even more important for fuels imported from smaller countries where there is less trade and more LUC risk.

d. Consequently, Clean Fuels recommends CARB revisit its GTAP-BIO modeling holistically, update the modeling to incorporate the most recent database, and properly model pathway combinations to reflect both high- and low-ILUC risk pathways.

e. In addition to updating the GTAP-BIO modeling to reflect the latest global developments in trade and agriculture, Clean Fuels recommends CARB pair the model with an updated AEZ-EF. In 2019, IPCC published its Refinement to the 2006 IPCC Guidelines for National Greenhouse Gas Inventories, including revisions to Volume 4 Agriculture, Forestry and Other Land Use, which AEZ-EF relies upon. To more accurately assess the hypothetical induced land use change effects of crop-based BMBD, CARB should employ an updated AEZ-EF that reflects the latest science on changes in carbon fluxes from land use conversion.

f. Lastly, should CARB decide to continue on its proposed path, that is, to ignore the latest evidence and science on land use change and continue to employ an outdated version of GTAP-BIO and seek to further penalize crop-based BMBD from certain high-risk countries, Clean Fuels requests that CARB undertake further rulemaking on the "mechanism" that will be developed "through an empirical assessment" to assign additional penalties to those fuels. CARB's current proposal is overly vague as to this mechanism, preventing Clean Fuels from commenting on this revision with any proper technical analysis.

4. Concerns About the Proposed 20% Cap on Credits for Crop-Based Biomass-Based Diesel

We are concerned that the proposed changes would unfairly penalize soybean oil and canola oil used to produce BMBD and would undermine the innovation and economic viability of an industry that not only reduces emissions from the transportation sector but supports sustainable farming practices and rural economies. No other fuel in California (whether renewable or petroleum based) would face the same scrutiny and barriers as soy- and canola-based BMBD – not even the astonishingly high CI crude oil derived from Alberta's tar sands.

Vegetable oils are effectively "capped" in the LCFS, not by explicit regulatory limits, but by the increasing CI targets and CARB's continued refusal to update the Global Trade Analysis Project (GTAP) modeling hardwired into the LCFS for estimating indirect land use change (ILUC) impacts, despite our numerous requests to update the modeling over the past several years. These factors naturally constrain the use of vegetable oils in biofuel production, as the higher CI targets push the industry towards lower-carbon alternatives. Without updated modeling in GTAP to reflect current market realities and advancements in agricultural practices, imposing further explicit caps is redundant, could stifle innovation, and is downright punitive, punishing a particular biofuel for achieving the success the LCFS was intended to foster in the first place. Instead of penalizing fuels, CARB should be focusing on improving the robustness of the models and encouraging sustainable practices through targeted incentives that might provide a more effective balance between environmental protection, food security, and the promotion of renewable energy.

To illustrate the fallacy of the proposed caps, ethanol previously generated around 80% of all the credits at the start of the LCFS. Now it generates around 10% (per Q1 2024 LCFS data). That reduction in ethanol's credit generation happened without any explicit cap on either the fuel or its feedstocks; instead, the fuel generated fewer credits as the CI targets grew increasingly more stringent. More importantly, that reduction in credits occurred at the same time electrification in the light-duty vehicle sector ramped up significantly, driven by CARB's zero emission vehicle mandates and consumer/infrastructure incentives. Thus, it's clear that an explicit cap on a biofuel's credit generation is not required to facilitate growth in EVs.

We strongly urge CARB to reconsider the proposed caps on vegetable oils in the LCFS. If implemented, any caps:

- Will substantially constraining the lowest cost feedstocks for these petroleum diesel replacements can raise the price of diesel fuel, increasing consumer prices of both the fuel and goods transported by trucking. To illustrate, a recent study by LMC International showed that the use of BMBD has lowered

the cost of diesel fuel by 4% overall, equivalent to about 22 cents per gallon at the credit prices evaluated during the study.[6]

- Could inadvertently destabilize the carbon market in California by limiting the availability of a key feedstock for renewable fuel production at a time when consistent supply is crucial to meet the state's ambitious carbon reduction goals.
- Could create further uncertainty in the LCFS market that reduces much needed investments in clean energy and fuels by signaling the state's willingness to modify the regulation in arbitrary, unpredictable, and scientifically unsound ways to achieve an objective.
- Will delay decarbonization and increase the cost to comply with the LCFS – for every 5 years of delay, 13 times more emissions reductions will be required to have the same climate impact[7].

By removing these proposed caps, CARB can help ensure that the rules governing the LCFS are both practical and conducive to market stability, thereby encouraging continued investment in clean energy technologies.

5. **Insufficient Time for Proper Consideration**

We were surprised by the scope and magnitude of the proposed changes contained in this 15-day Package. Several significant amendments were introduced without any prior workshop to specifically discuss the issues, nor did CARB staff engage with the BMBD industry to inform these proposals. Unfortunately, 15 days is far too short of time to properly analyze and understand the long-term the timing of this 15-day Package and leaves minimal opportunity to provide CARB with further information and analysis before the Board votes to adopt these amendments at its November 8th, 2024 meeting. While detailed discussions about potential changes to LCFS have been going on for approximately three years, these substantial changes are being proposed with only three months remaining in the process.

In summary, Clean Fuels and CABA encourages CARB to adopt the proposed amendments – without the proposed caps, delaying the sustainability provisions, and with the intent to revisit its ILUC values for both high-risk and low-risk feedstocks – at the November 8th Board meeting. The remaining issues should instead be addressed in a workshop next year and considered during a subsequent regulatory process where it can receive full and fair consideration. This approach will ensure that the state's carbon market remains robust, supporting both environmental and economic objectives.

---

[6] LMC International, Economic Impact of Biodiesel on the United States Economy 2022: Main Report. https://cleanfuels.org/wp-content/uploads/LMC_Economic-Impact-of-Biodiesel-on-the-US-Economy-2022_Main-Report_November-2022.pdf

[7] Joos et al, Carbon dioxide and climate impulse response functions for the computation of greenhouse gas metrics: a multi-model analysis, acp-13-2793-2013.pdf (copernicus.org).

Clean Fuels and CABA thank CARB staff for their continued efforts to strengthen the LCFS and provide the vision for the program to meet California's carbon neutrality goals. Thank you for your consideration of these comments. We look forward to continuing to collaborate with CARB staff.

Sincerely,

Cory-Ann Wind
Director of State Regulatory Affairs
Clean Fuels Alliance America

Carlos Gutierrez
Executive Director
California Advanced Biofuels Alliance