

# Clean Fuels Alliance America

Clean Fuels Comments on WA Clean Fuels Standard Rule and Air Quality Fee Rule for Ecology's Consideration.



**Clean Fuels**  
ALLIANCE AMERICA

August 31, 2022

Rachel Assink  
Rulemaking Lead  
Washington State Department of Ecology  
P.O. Box 47600, Olympia, WA 98504-7600

Re: Clean Fuels Comments on Clean Fuels Standard Rulemaking

Dear Ms. Assink:

Clean Fuels Alliance America (“Clean Fuels”) appreciates the opportunity to provide comments on the proposed Clean Fuel Standard regulation, filed July 18, 2022 (hereinafter “Proposed Regulation”). Clean Fuels is the U.S. trade association representing the domestic supply chains for the biodiesel, renewable diesel, and sustainable aviation fuel (SAF)<sup>1</sup> industries. We have over 100 members, including farmers, feedstock processors, fuel producers, marketers, and technology developers, as well as Clean Cities coordinators.

As an initial matter, we thank the Department of Ecology (Ecology) staff for all the hard work and stakeholder engagement they put into the rulemaking process. There are a number of aspects of the proposed regulation that we support and appreciate, which we note below. However, there remain some elements we continue to have concerns about, which we will reiterate from our April 8, 2022,<sup>2</sup> and April 25, 2022<sup>3</sup>, comment letters, both of which we incorporate herein by reference.

### **Strong Support for Carbon Intensity (CI) Targets**

We strongly support the proposed CI reduction targets of 10% by 2031 and 20% by 2034. These targets will better position Washington for alignment with Oregon’s and California’s clean fuels programs. It should be noted that both California and Oregon are currently considering deeper pre- or post-2030 targets, with Oregon considering a 20% target by 2030 and 37% target by 2035, while California is workshopping both a 25% and 30% target by 2030 and requesting stakeholder input on interim targets as well as post-2030 targets.

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<sup>1</sup> Biodiesel, renewable diesel, and SAF are all made from the same waste and by-product fats, oils, and greases generated from surplus lipids such as used cooking oil, rendered tallow, inedible corn oil, soybean oil, and canola oil. SAF is also sometimes referred to as “alternative jet fuel,” as it is in the Proposed Regulation.

<sup>2</sup> See [April 8<sup>th</sup> Joint Comment Letter](#), accessed Aug. 31, 2022.

<sup>3</sup> See [April 25<sup>th</sup> Joint Comment Letter](#), accessed Aug. 31, 2022.

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## Support for Certain Changes Made from Earlier Draft Language

We appreciate and support the changes that were highlighted in our April 8th and April 25<sup>th</sup> comment letters, specifically the grandfathering of Tier 2 pathways from other jurisdictions (CA and OR) and the opportunity to be granted a Tier 1 pathway for specified source feedstocks prior to 2025, when Tier 2 pathway applications will be accepted and reviewed. We also appreciate removal of the 8-hour oxidation stability requirement for B100 that was in the earlier draft.

With that said, we continue to recommend language which clarifies that a certified Tier 2 pathway for an existing facility should be grandfathered in before 2025 if that facility undergoes an expansion.<sup>4</sup> Low carbon fuel production facilities with already-certified pathways are expanding now in response to the market signals sent by the California and Oregon clean fuels programs; grandfathering these expansions will strengthen and better align Washington's program with those states. As suggested in our prior letter, expanded production from existing facilities should be included in grandfathered Tier 2 pathways for the time period in which production begins and when Ecology approves a new Tier 2 pathway after 2025. Since the expansion will be utilizing the same technology as the certified one, CI scores should remain equal.

### WAC 173-424-600 Carbon Intensities Sec. (7) and (8)

As we noted in our April 25<sup>th</sup> letter, the language in sections (7) and (8) dealing with a "margin of safety" could, under a strict reading, be interpreted as requiring each and every gallon of fuel sold in Washington State to meet a given producer's registered carbon intensity value. The carbon intensity limits in the regulation are, by design, intended to be applied to each regulated party on an aggregate basis, hence applying it to each and every gallon sold in the state does not appear to be the intent of the provision. We therefore recommend removing the language in these sections prohibiting the generation of credits on fuel that has carbon intensity calculated above the certified carbon intensity value. It makes little sense to prohibit the generation of any and all credits from fuels that have carbon intensity below the annual CI standard for that compliance period.

While a "margin of safety" assigned by the producer is in line with the practices in California and Oregon, neither program prohibits the generation of any credit on a fuel that exceeds the margin. Instead, both states provide for an end-of-year reconciliation period in which a regulated party may "true up" the difference between the actual CI reported and the certified CI. Accordingly, we recommend adding clarifying language to these sections to incorporate a year-end reconciliation or true up period to ensure biofuel producers are in compliance with the program. This would be similar in practice to the way in which California and Oregon handle this situation and would provide clear guidance to biofuel producers whose CI can vary throughout the year. Variance can occur in the short term for a variety of reasons (e.g., due to planned or unplanned downtime for maintenance, catalytic replacement, or switching to different grades of renewable diesel).

We ask that these sections be clarified so that either an annual review of carbon intensity scores for facilities will be used to determine compliance for participants or that a minimum of 12 months will be used to evaluate the fuel carbon intensity and compliance.

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<sup>4</sup> Id. at 1.

## Fee Structure

As we noted previously, while Ecology has the statutory authority to implement fees for CFS participation, we suggest avoiding fees charged to credit generators. The Washington CFS will be the only carbon market charging a fee for participation<sup>5</sup>, which could create a competitive imbalance. Even the modest fees to producers of renewable fuels (covering 20–30% of the program cost) could stifle the program's success. Smaller producers might avoid Washington's program due to the fee, opting instead to sell fuel in British Columbia, California, and Oregon markets, which would have lower costs and potentially higher value credits. This will reduce Washington's access to important biofuels and could hinder the advancement of the program and innovation needed to create new production in the state. To the extent fees are necessary, those should be levied on obligated parties rather than credit generators.

## Lifecycle Accounting and Science

We strongly reiterate our request that the following topics be addressed during this rulemaking, or if that's not feasible the next rulemaking, which we recommend Ecology staff to initiate as expeditiously as possible:

- Focus the WA-GREET Model to account for updated science related to indirect land use change for canola production, similar to British Columbia's carbon intensity score for Canola Methyl Esters and Canola renewable diesel, along with the updated science for soy. See Comments from Clean Fuels and REG from April 13, 2022.
- Establish a mechanism in WA-GREET to reduce the carbon intensity of fuels for feedstock utilizing carbon reducing agricultural practices such as no-till.
- Provide a mechanism for indirect accounting of renewable forms of electricity, hydrogen, and natural gas used at renewable fuel production facilities to allow them to pursue low carbon inputs that will reduce their carbon intensity without having a direct connection.

Finally, we remained puzzled by the proposed regulation's use of different lifecycle assessment models for corn ethanol and soy (and canola) biodiesel, even though the same model has been updated by Argonne National Laboratory for both feedstocks and fuels. It would seem that the latest version of GREET is either good enough for both or neither, especially when the substitution rationale cited by Ecology's consultant<sup>6</sup> for treating soy and canola differently has been addressed in the latest publications from Argonne and Purdue University. More importantly, as we noted in comments to a recent CARB workshop on the Low Carbon Fuel Standard (attached for convenience), the substitution/food price impacts and deforestation issues were definitively addressed by CARB when it formally incorporated the indirect land use change (ILUC) modeling framework into the LCFS, which remains essentially unchanged and central to foundations for both California's LCFS and Oregon's CFP.

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<sup>5</sup> For example, California's Cost of Implementation Fee Regulation explicitly exempts biodiesel, renewable diesel, or any other biomass-derived fuel from the fee used to support the implementation of California's climate programs since such fuels are credit generators. See section 95201(c), title 17, California Code of Regulations, <https://www2.arb.ca.gov/our-work/programs/ab-32-coi-fee-regulation/regulation>, page 4.

<sup>6</sup> On a related note, the "peer review" cited in support of the consultant's recommendation – to use one lifecycle assessment model for corn ethanol and a different one for soy and canola – would appear to fall short of best practices for independent, scientific peer reviews given that the reviewer has previously published on the unproven issue of substitution/displacement in biofuels policies. See, e.g., <https://theicct.org/sites/default/files/publications/Biofuels-displacement-emissions-oct2020.pdf>.

Above all else, it is our hope that the department chooses consistent methodological and sound science-based approaches toward all issues, including lifecycle analysis.

#### Enforceability of Co-Processing Provisions and Expanded Use of Book-and-Claim

As noted in our prior comments on co-processing,<sup>7</sup> we strongly encourage Ecology to build into the relevant provisions enhanced mechanisms and tools for ensuring the integrity of both the credits and the CFS program itself. These mechanisms include, but are not limited to, regular and frequent confirmation of renewable content using C-14 radiocarbon assay, applying consensus methodologies developed by ASTM International for this purpose.

Finally, we continue to recommend expansion of the regulation's use of book-and-claim accounting to other alternative fuels beyond electricity, hydrogen, and renewable natural gas. The goal for the program should be to drive innovations that lower carbon emissions for all alternative fuels, but especially those alternative fuels like biodiesel, renewable diesel, and sustainable aviation fuel, which can provide significant GHG and other pollutant reductions immediately, not years or decades down the road. Expanded use of book-and-claim can, for example, incent greater use of renewable electricity, renewable methanol, and renewable hydrogen in the production of many other alternative fuels, lowering the transportation sector's GHG footprint even faster and helping the state achieve its climate and air quality goals more quickly.

#### Conclusion

Thank you for the opportunity to present our comments and your engagement throughout the rulemaking process. We look forward to continuing to be a strong partner in Washington's decarbonization efforts and to help strengthen and implement the Clean Fuel Standard.

Respectfully,



Floyd Vergara  
Director of State Governmental Affairs  
Clean Fuels Alliance America

Attachment

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<sup>7</sup> April 8<sup>th</sup> Joint Comment Letter, op cit., at 5.



August 8, 2022

Cheryl Laskowski, Chief  
Transportation Fuels Branch  
California Air Resources Board  
1001 I Street  
Sacramento, CA 95814

Dear Dr. Laskowski:

The Clean Fuels Alliance America (Clean Fuels)<sup>1</sup> and California Advanced Biofuels Alliance (CABA)<sup>2</sup> appreciate the opportunity to provide comments on the July 7<sup>th</sup> Low Carbon Fuel Standard (LCFS) workshop to discuss potential changes to the LCFS program. 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 continue to support California's efforts to decarbonize its economy, especially the transportation sector, with a comprehensive all-of-the-above suite of measures.

Our California member producers and marketers support over 3,900 well-paying jobs in the state and about \$960 million in economic activity each year. Further, the biodiesel, renewable diesel, and sustainable aviation fuel supplied to the state by our California and national members are collectively the single largest source of GHG reductions in the LCFS, providing nearly half (44-45%) of the carbon reductions since 2017, more than any other fuel including electricity, and 42% since the start of the LCFS. Our fuels have grown to the point where fully a third (33%) of each gallon on average of diesel fuel consumed in the state in 2021 – and 44% of the diesel pool in Q1 2022 – consisted of our industry's low-carbon fuels.<sup>3</sup> Our sustainable replacements for petroleum diesel have been a major factor in driving California's continuing large-scale transformation of transportation from petroleum based toward a carbon neutral

<sup>1</sup> Clean Fuels (formerly the National Biodiesel Board) is the U.S. trade association representing the entire supply chain for biodiesel, renewable diesel, and sustainable aviation fuel. The name change reflects our embrace of all the products Clean Fuels members and the U.S. industry are producing, which include biodiesel, renewable diesel, sustainable aviation fuel, and Bioheat® fuel for thermal space heating. Our membership includes over 100 farmers, producers, marketers, distributors, and technology providers, and many are members of environmental organizations supportive of state and local initiatives to achieve a sustainable energy future.

<sup>2</sup> 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.

<sup>3</sup> See [LCFS Quarterly Data Spreadsheet](#) (dated July 31, 2022).

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system. More to the point, our liquid diesel replacement fuels remain the only viable, commercial scale alternatives to petroleum for the next several decades in the most difficult-to-decarbonize sectors: heavy duty on- and off-road, marine, rail, and aviation.

We will have additional comments on other aspects of the staff's presentation in the coming days but wanted to focus our comments in this letter on two specific items: the pre- and post-2030 carbon intensity reduction targets and the suggestion to cap vegetable oil feedstocks.

### Strong Support for More Aggressive Pre- and Post-2030 Carbon Intensity Reduction Targets

We generally support adoption of more stringent pre- and post-2030 targets. Increasing the stringency of the LCFS targets will bolster the market signal that has incentivized innovations and billions of dollars in investments by the alternative fuels industry.<sup>4</sup> We reserve further comment on specific targets pending publication by CARB staff of the underlying modeling, data and assumptions in support of any such proposed targets. With that said, we have supported and continue to support LCFS targets that facilitate the complete displacement of roughly 3.4 billion gallons of petroleum displacement with biomass-based diesel within the 2030-2035 timeframe.<sup>5</sup>

### Strong Opposition to Suggested Cap on Vegetable Oil Feedstocks

At the July 7th workshop,<sup>6</sup> CARB staff requested feedback on a number of questions related to a suggested cap on vegetable oil feedstocks (rearranged below for clarity):

- 1) Should staff consider a cap on crop-based biofuels?
- 2) If so, what mechanisms could staff consider or implement as part of the upcoming rulemaking?
- 3) What are the potential risks of increased use of crop-based biofuels?
- 4) What data sources or studies should staff review to evaluate potential impacts of future growth in crop-based biofuels?

The suggested cap was premised ostensibly on a concern, expressed without elaboration or supporting documentation, that increasing lipid-based feedstock for biofuels may result in food and fuel "conflicts" and, therefore, CARB should consider an upper limit on biofuel volumes from lipid-based feedstocks. Staff noted further that the suggestion follows similar actions in the European Union. The stakeholder recommendation was for CARB to evaluate the need for adjustments "to avoid deforestation, land conversion, and adverse food supply impacts."<sup>7</sup>

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<sup>4</sup>See, e.g., \$2B investment to expand World Energy's Paramount facility to include sustainable aviation fuel (SAF). [Green Air News](#), accessed August 8, 2022.

<sup>5</sup> See Clean Fuels & CABA joint comment letters dated [May 3, 2022](#) and [June 17, 2022](#).

<sup>6</sup> References to the "workshop" "or "staff presentation" are to the slides presented by staff at the [July 7, 2022, CARB workshop](#) unless otherwise noted.

<sup>7</sup> *Id.*, workshop slide 33.

1) Should staff consider a cap on crop-based biofuels?

We strongly oppose such a cap on vegetable oil feedstocks because it is unwarranted, not based on sound science, would chill substantial investments in the LCFS, and be counterproductive to California’s climate change and carbon neutrality objectives.

(A) The existing lifecycle assessment framework makes a vegetable oil cap unwarranted

The suggested cap is driven ostensibly by stakeholder concern regarding a “food and fuel” issue. As an initial matter, we note that global food prices are the result of a complex and highly interwoven set of factors well beyond the use of vegetable oil in biofuel production. Factors such as geopolitical events, wars, famines, droughts, and climate change, to name a few, play substantially greater roles in shaping food prices than biofuel feedstock production. Indeed, a study by Purdue University<sup>8</sup> found that doubling the price of soybean oil results in only minor retail food price increases (see attached infographics). And, to the extent such minor impacts can occur, they must be considered in context with the substantial environmental, public health, and economic benefits biomass-based diesel fuels provide to California and the U.S. Our fuels provide a 4% reduction in overall diesel fuel prices;<sup>9</sup> support more than 65,000 jobs, \$2.5 billion in wages, and \$17 billion in overall economic activity;<sup>10</sup> and reduce GHG emissions by an average of 74%, among numerous other benefits.

The “food and fuel” concern was first raised in the original 2009 rulemaking,<sup>11</sup> and again in the 2011<sup>12</sup> and 2015<sup>13</sup> rulemakings. CARB definitively addressed this issue when it incorporated into the 2009 LCFS rulemaking the groundbreaking use of the Global Trade Analysis Project (GTAP) model and related models<sup>14</sup> to infer potential impacts from the growing of feedstocks used in the production of some biofuels. Since then, the GTAP modeling framework has provided the foundation for addressing “food and fuel” and other concerns related to indirect land use change (ILUC) impacts. CARB’s subsequent refinement of the GTAP modeling system was developed through a comprehensive, multi-year public vetting process, including the convening of an Expert Working Group (EWG) under direction from the CARB Board.<sup>15</sup> The EWG met eight times since its formation in 2010, and its nine technical subgroups met numerous

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<sup>8</sup> Lusk, J.L. (2021). *Soybean Oil Prices and Retail Food Costs*. Center for Food Demand Analysis and Sustainability, Purdue University, for the United Soybean Board.

<sup>9</sup> Kruse, J. (2022). *The Offsetting Impact of Expanded Diesel Production Biomass Based on Diesel Prices*, World Agricultural Economic and Environmental Services, for Clean Fuels Alliance America.

<sup>10</sup> LMC International (2019). *The Economic Impact of the Biodiesel Industry on the U.S. Economy*, for National Biodiesel Board (now Clean Fuels Alliance America).

<sup>11</sup> See “Food vs. Fuel” comments and staff responses, [December 2009 LCFS Final Statement of Reasons](#), starting at 403.

<sup>12</sup> See [October 2012 LCFS Final Statement of Reasons](#), at 102.

<sup>13</sup> See, e.g., [October 2015 LCFS Final Statement of Reasons](#), noting that the proposed 2015 rulemaking, which was informed by the EWG’s work, was developed “using the best available economic and scientific information...”

<sup>14</sup> Indirect land use change is, by definition, indirect and therefore cannot be observed directly. Inference via GTAP modeling shows that the assumed ILUC impacts were grossly overestimated at the beginning of the program and could be 90% less than the original estimate.

<sup>15</sup> See [Board Resolution 09-31](#), at 15.



times to tackle specific issues, including food consumption issues.<sup>16</sup> In addition to being informed by the EWG, the Board also commissioned two independent peer reviewers from MIT and Yale University to conduct “bottom up” and “top down” evaluations of changes to the GTAP model made by Purdue and CARB staff’s ILUC modeling; the peer review analyses were presented to the EWG and CARB for their consideration.<sup>17</sup>

The result of the comprehensive effort described above was to estimate the impacts on carbon intensity from indirect land use change from biofuel production, a metric which accounts for modeled impacts on food prices, among other impacts. Indeed, the concern for food price impacts was the primary driver for the incorporation and continued updating of the GTAP modeling framework in the LCFS. Notably, the estimated ILUC value for soy biodiesel was originally assessed by CARB’s GTAP modeling for the 2009 rulemaking to be 62 g CO<sub>2</sub>e/MJ, which was subsequently lowered to 29.1 in the 2015 rulemaking. Recent modeling by Argonne National Laboratory and Purdue University suggests the current ILUC estimate for soy is within the 6-8 g CO<sub>2</sub>e/MJ range, an estimated 90% reduction from the original 2009 ILUC score assessed for soy.<sup>18</sup>

Further, the Board’s modeling in the 2015 rulemaking already accounts for an increase in soy, canola, and palm biomass-based diesel of about 1.6 billion gallons.<sup>19</sup> Since California already consumes over 1.1 billion gallons of waste-oil biodiesel and renewable diesel,<sup>20</sup> an increase of 1.6 billion of vegetable oil-based biodiesel and renewable diesel is well within the modeling CARB staff recently conducted as part of its “preferred scenario,” which modeled 2.4 billion gallons of biomass-based diesel as part of the scenario for achieving carbon neutrality by 2045.<sup>21</sup> It’s important to note that, in adopting the 2015 LCFS rulemaking, CARB’s Board found that “no reasonable alternatives to the proposed LCFS...would be more effective at carrying out the purpose for which the regulation is proposed or would be as effective and less burdensome to affected entities...”.<sup>22</sup> The Board’s Final Environmental Analysis for the 2015 LCFS rulemaking explicitly accounted for concerns expressed and analyzed regarding land use change and food price impacts.<sup>23</sup>

In short, the LCFS already accounts for the “food and fuel” concern, CARB’s Board determined that the concern is best addressed through the use of GTAP modeling to assess an appropriate ILUC score for crop-based biofuels, and that the ILUC scores for soy and canola have consistently decreased as the science for ILUC modeling has been refined over the years. Thus, placing a cap on vegetable oil feedstocks is unwarranted – there is no need to replace a

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<sup>16</sup> See [Detailed Analysis for Indirect Land Use Change](#), at I-5.

<sup>17</sup> Ibid.

<sup>18</sup> Chen, R., Qin, Z., Han, J., Wang, M., Taheripour, F., Tyner, W.,... & Duffield, J. (2018). Life cycle energy and greenhouse gas emission effects of biodiesel in the United States with induced land use change impacts. *Bioresource technology*, 251, 249-258.

<sup>19</sup> See Detailed Analyses for Indirect Land Use Changes, op cit. at I-8 (Table H-1).

<sup>20</sup> LCFS Quarterly Data Spreadsheet, op cit.

<sup>21</sup> See [AB 32 GHG Inventory Sectors Modeling Data Spreadsheet](#), see Alt. 3 under tab “Energy Demand.”

<sup>22</sup> [CARB Board Resolution 15-36](#) at 4.

<sup>23</sup> [2015 Final Environmental Analysis](#), at 34-38.

modeling framework that has been in place and has worked since 2009 with an arbitrary cap that is not based on sound, robust science but is instead based on speculation and a highly-politicized European approach. Instead, CARB should include in its upcoming rulemaking an update of the datasets used in the GTAP modeling to reflect the recent scientific developments and real-world observational data.

(B) The suggested cap is not based on sound science

As noted, the LCFS already uses the gold standard for lifecycle assessments (LCAs) in clean fuel programs (e.g., the use of GREET, GTAP-BIO, AEZ-EF, etc.). The LCAs in the low carbon fuel standard have been developed through a process that has undergone ten or more years of public and scientific vetting and refinement. By contrast, Europe's approach is unscientific, driven by anti-biofuel interests, established through state-by-state negotiations, and highly politicized.

Proposals for CARB to consider an arbitrary vegetable-oil cap, based on European developments, have no place in a science-based program. The LCFS has used essentially the same science-based LCA framework since 2010 to assess carbon intensity scores and gauge the potential impacts and benefits of the various fuels participating in the LCFS. CARB has been a leader in the regulation of transportation fuels through the LCFS and its groundbreaking, science-based lifecycle assessment framework. The state has no need, and would be ill-served, to replace that robust, scientific foundation with the haphazard and unscientific process Europe employs for addressing transportation fuel GHG emissions.

(C) A cap would chill investments in low carbon fuels

As noted, the LCFS has employed for over ten years the same LCA framework based on rigorous and publicly vetted science. This has helped provide regulatory certainty, enabling billions of dollars' worth of investments and capital financing to enable the innovations in fuel production needed to meet the LCFS requirements (e.g. soybean crush plants, new standalone biodiesel, renewable diesel, and SAF production facilities,<sup>24</sup> storage infrastructure, etc.). These investments have been made in direct response to the market signal provided by the LCFS. Adopting a vegetable oil cap sends the wrong signal to low carbon fuel producers that California regulatory programs cannot be relied on to make substantial investment decisions since the state is willing to replace a science-based framework with a politicized and arbitrary mechanism. Further, a cap of any kind could have unintended consequences, such as incurring a disproportionately harmful impact on smaller, in-state producers which have the lowest carbon fuels in the market (e.g., a cap could constrain supplies of all feedstocks, not just crop-based ones, making it harder for smaller in-state producers to procure sufficient feedstocks to continue operating).

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<sup>24</sup> See, e.g., World Energy's \$2B investment in SAF expansion, Green Air News, op cit.; \$1.1B investment in Diamond Green Diesel joint venture, [Louisiana Economic Development](https://www.lelezard.com/en/news-20337763.html); the millions of dollars invested in the recently completed expansion at Crimson Renewable Fuels (Bakersfield, CA), <https://www.lelezard.com/en/news-20337763.html>.

(D) A cap is counterproductive to California’s climate change and carbon neutrality goals

As noted, the Scoping Plan update shows CARB needs to at least double the current biomass-based diesel volumes from 1.22 billion gallons in 2021 to 2.42 billion gallons in 2030 to meet the 2045 carbon neutrality target under the staff’s “preferred scenario.” Indeed, a recent U.C. Davis paper showed that, in the absence of deep and rapid electrification, the only way California reaches its 2030 targets and beyond is to scale up the effective biomass-based blend rates from 24% (2020) to 60-80% by 2030,<sup>25</sup> which cannot be done solely with current waste oil feedstock supplies. If vegetable oil feedstocks are capped, and alternatives to biomass-based diesel and SAF cannot meet the projected need (as shown in the Scoping Plan’s “preferred scenario”), the only remaining fuel available that can provide the high energy density needed in the heavy duty on- and off-road sectors is petroleum distillate. It is hard to imagine how increasing reliance on petroleum fuels, rather than decreasing it, serves the climate and air quality needs of California.

2) If cap is warranted, what mechanisms could staff consider or implement as part of the upcoming rulemaking?

As noted above, a cap is not warranted, particularly for biofuels used in the difficult-to-electrify heavy duty sectors – California will need both waste based and co-product/surplus vegetable oil feedstocks to keep petroleum in the ground and meet the energy demands of the heavy-duty on- and offroad sectors while the state aggressively electrifies everywhere else it can. The state should be singularly focused on doing everything it can to keep from adding large quantities of new carbon into the atmosphere vis-à-vis by keeping fossil fuels in the ground. By necessity, this means increasing reliance on biofuels done in a way that is scientifically robust and defensible (i.e. with the current LCA framework, updated with latest science) while electrifying everywhere it can.

3) What are the potential risks of increased use of crop-based biofuels?

A better question to ask is: What are the risks of decreased use of biofuels? The Scoping Plan update shows the limits of over-reliance on electrification, and the state’s analysis and modeling leaves little room for other fuels besides biomass-based diesel fuels to make a meaningful impact. Thus, in the absence of a substantial increase in biomass-based diesel and SAF, the only other fuel that can provide the high energy-density demand, especially in the most-difficult-to-electrify sectors, are petroleum distillates and related high carbon fossil fuels. Capping vegetable oil feedstocks can therefore lead to a shortfall in the supply of high energy density fuel, a gap which would otherwise be filled with petroleum fuels.

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<sup>25</sup> Bushnell, J. et al. (2019). [\*Uncertainty, Innovation, and Infrastructure Credits: Outlook for The Low Carbon Fuel Standard through 2030\*](#), at iv.

4) What data sources or studies should staff review to evaluate potential impacts of future growth in crop-based biofuels?

The LCFS is already built on a solid LCA foundation that accounts for both direct and indirect/induced emissions. That LCA framework has been established through a rigorous scientific process resulting from extensive, public and scientific vetting. The existing ILUC framework already works well to minimize feedstocks that can lead to deforestation and other significant harms (e.g. palm-based fuels). The only question for CARB to consider, therefore, is not how to replace that long-established and well-vetted framework, but how soon can the underlying datasets and assumptions in the ILUC framework be updated to reflect the latest science from Argonne, Purdue, and other reputable academics, which CARB has relied on and which has provided the last 10+ years of regulatory certainty in the LCFS. As noted, the current science shows the ILUC impacts from soy and canola have been substantially overestimated, and CARB should accelerate its efforts to incorporate that latest science to ensure the scientific integrity of the LCFS.

Conclusion

We strongly support a more stringent set of pre- and post-2030 CI reduction targets. With that said, we are deeply concerned with and are strongly opposed to any proposed cap on vegetable oil feedstocks as being unwarranted, not based in sound science, would chill ongoing and future investments, and is counterproductive to California’s climate and carbon neutrality objectives. Instead of pursuing this line of inquiry further and introducing more uncertainty into the LCFS market, we strongly encourage CARB to focus on adopting more stringent CI targets and update the science, datasets, and assumptions underpinning the existing LCA framework as expeditiously as possible in the upcoming rulemaking.

Thank you for your consideration of these comments. We look forward to continuing our strong collaboration with CARB and staff.

Sincerely,



Floyd Vergara, Esq., P.E.  
Director of State Governmental Affairs  
Clean Fuels Alliance America



Rebecca Baskins  
Executive Director  
California Advanced Biofuels Alliance