



June 23, 2022

Chair Randolph and Members of the Board
California Air Resources Board
1001 I St
Sacramento, CA 95814

Re: Renewable Fuels Association Comments on the Draft 2022 Scoping Plan

Dear Chair Randolph and Board Members,

The Renewable Fuels Association (RFA) thanks you for the opportunity to comment on the Draft 2022 Scoping Plan now before the Board. The RFA was actively involved in the stakeholder process developing the Draft Scoping Plan and provided comments on the three workshops held over the last year.

The RFA is the leading national trade association representing U.S. fuel ethanol producers. Its mission is to advance the development, production, and use of low-carbon fuel ethanol by strengthening America's ethanol industry and raising awareness about the benefits of renewable fuels. Founded in 1981, RFA serves as the premier forum for industry leaders and supporters to discuss ethanol policy, regulation, and technical issues. RFA's 300-plus members are working daily to help America become cleaner, safer, more energy secure, and economically vibrant.

The RFA supports California's efforts to achieve carbon neutrality by 2045 and agrees that Scenario 3 as presented in the Draft Scoping Plan is the best course for achieving this goal. The ethanol industry is doing its part by continuously reducing carbon intensities and today US ethanol production on average reduces GHG emissions by 50 percent compared to gasoline and all RFA member companies are committing to net zero carbon ethanol production no later than 2050 with many producers on pace to achieve this result well before 2050.

The Executive Summary of the Draft 2022 Scoping Plan emphasizes the needs for an aggressive reduction in the consumption of fossil fuels, a portfolio approach of solutions, a focus on the opportunity for carbon removal with natural lands and ensuring equality and affordability. Renewable liquid fuels are positioned to offer significant positive contributions in all these identified areas.

A principal focus of the Scoping Plan, and the state regulations it will influence, should be achieving the greatest reduction in GHG emissions starting as soon as possible. The most recent UN IPCC report made it alarmingly clear the imperative of further reducing GHG emissions immediately. The Introduction to the Scoping Plan draws heavily on the UN IPCC proceedings calling for immediate and large-scale reductions in GHG emissions.

The cumulative impacts of not reducing GHG emissions as soon as possible can be catastrophic. Ethanol blended into California gasoline at ten percent blends has delivered the single largest source (over 30 percent) of GHG reductions under the LCFS since its inception in 2011. Focusing California policies on employing the use of higher ethanol blends offers an immediate opportunity to significantly reduce GHG emissions from the transportation sector which is responsible for fifty percent of total statewide GHG emissions.

The expeditious approval of E15 as a legal fuel in California facilitates valuable and immediate GHG reductions.

The adoption of E15 blends in California would reduce GHG emissions from transportation by approximately 2 million tons per year. Attached are the results of the recently completed emissions study (in part funded by CARB), conducted by the *UC Riverside Center for Environmental Research and Technology*, comparing E15 and E10. The results confirm that in addition to GHG reductions, E15 reduces most criteria pollutants. With ethanol trading today (and historically) at a significant discount to gasoline, E15 reduces GHG emissions, criteria pollutants, and consumer price, which is a rare and laudable combination.

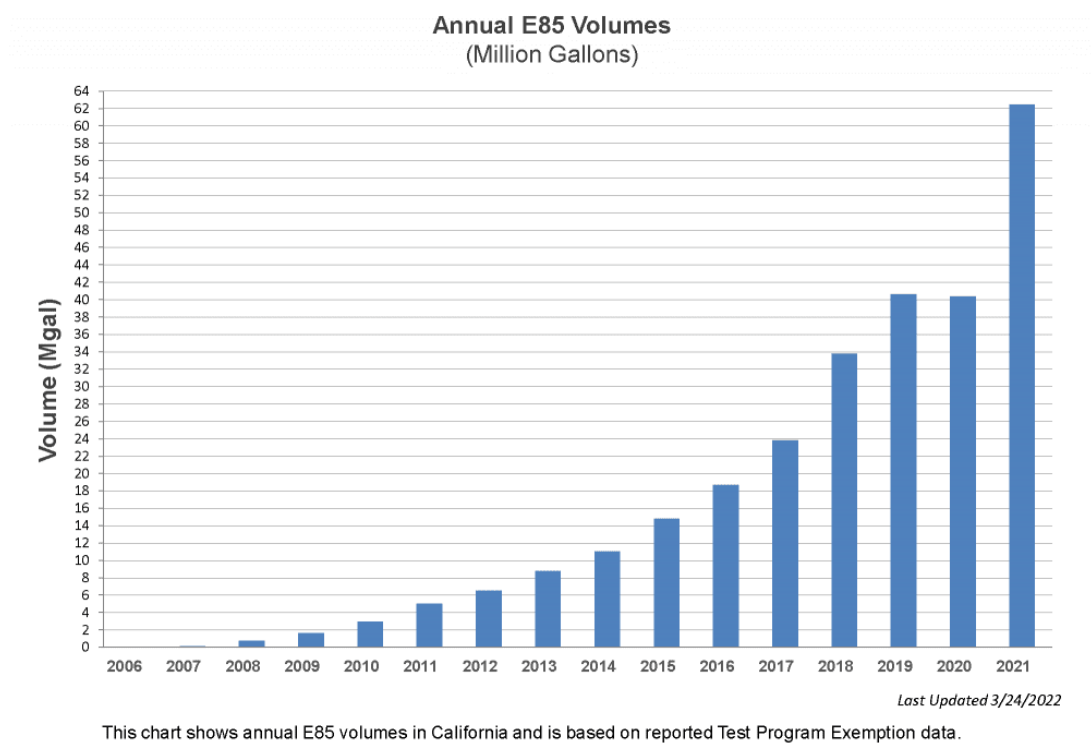
Currently, California and Montana are the only two states that do not recognize E15 as a legal fuel. Responsive to the Draft Scoping Plan's call for GHG emission reductions now, CARB should expedite the adoption of E15 as a legal fuel in California. This can quickly reduce fossil fuel use, lower emissions, and lower the cost to the consumer.

Amend the proposed ACC II regulations to include a requirement that all new internal combustion engine (ICE) vehicle sales from 2026 forward be flex fueled vehicles (FFVs).

Higher blends of low carbon ethanol in the current and future gasoline pool represent the nearest term and most affordable path for even greater and immediate reductions of GHG emissions from the light duty fleet. An FFV requirement for all ICE vehicles sold from 2026 enables the future fleet of vehicles to be capable of running on low to zero carbon ethanol over their useful life.

Additionally, employing the sale and use of FFV PHEV vehicles powered by renewable electricity and renewable liquid fuels under the proposed ZEV requirements from 2035, will sustain the GHG reductions from this practical and affordable option for California consumers. FFVs running on 100% renewable low to zero carbon fuel is equivalent to the GHG benefits of battery electric vehicles and at a lower cost of the vehicle

The automakers have demonstrated the ability to produce mass quantities of FFV engines at a negligible incremental cost. What is not negligible is the significant GHG and criteria pollutant benefits of higher ethanol blends. And as a bonus, ethanol sells at a material discount to gasoline. E85 in California has been selling recently at a price over two dollars a gallon less than regular gasoline. Consumers have responded to the E85 price signal with over a fifty percent increase in E85 sales in 2021.



Securing this low-cost compliance option for lower income consumers is valuable in meeting the equity goals of the ACC II regulation and the broader policy umbrella of the Scoping Plan. Given the feasibility, low-cost and environmental benefits of an FFV requirement, it offers a simple and compelling addition to the ACCII regulation and adds significantly to the portfolio approach advocated by the Draft Scoping Plan.

Strengthening the LCFS compliance curves before and after 2030 builds the bridge to carbon neutrality by 2045.

As it relates to transportation policies, it is critically important to harmonize the LCFS with the goal of carbon neutrality by 2045 and send the long-term market signal necessary to encourage the significant new investments in innovative technologies required to meet California's decarbonization goals. The LCFS program has been a resounding policy success in efficiently reducing GHG emissions in California, but at the current 20 percent reduction in carbon intensity by 2030, the program is lagging the goal of carbon neutrality by 2045.

The Draft Scoping Plan correctly addresses this opportunity by calling for new policies to accelerate the current carbon intensity targets prior to 2030 and propose new targets for the LCFS post 2030 to align with the Final 2022 Scoping Plan. Due to the overwhelming success of the market signals of the LCFS, credit generation is now exceeding deficit generation and credit pricing has dropped precipitously, discouraging new investments in new, low to zero carbon fuel production. Continued investment in these new technologies is critical for achieving carbon neutrality by 2045. The Final Scoping Plan should send a strong market signal on the need to quickly strengthen the compliance curves of the LCFS responsive to carbon neutrality goals and the demonstrated ability of the market to respond.

Consistent with the Draft Scoping Plan's emphasis on natural lands as a source of carbon removal, modifications to the LCFS should credit farm specific reductions in carbon intensity through lower carbon inputs and soil carbon sequestration. Farmers have shown and quantified the ability to reduce the carbon intensity of feedstock production through lower fertilizer inputs, no tillage and other precision agricultural practices. It is important that these practices be incorporated into the accounting of carbon intensity pathways under the LCFS.

Chapter 2 of the Draft Scoping Plan states that "the modelling clearly shows that no path to carbon neutrality is possible without carbon removal and sequestration." The capture and sequestration of CO₂ from the ethanol production process is the most immediate and economically viable opportunity for carbon capture and sequestration (CCS) in the transportation sector. The LCFS modifications of 2018 established for the first time a protocol for CCS. With new modification to the LCFS, the CCS protocols should be reevaluated to ensure that they are encouraging the rapid adoption of CCS particularly from biogenic sources of CO₂ provided by the ethanol industry.

The modeling results supporting the Draft Scoping Plan should be updated to reflect appropriate assumptions.

The demand assumptions for transportation fuels provided in Appendix H of the Draft Scoping Plan appropriately show approximately a doubling of biofuel demand by 2045 over the 2020 baseline which is consistent with the Draft Scoping Plan's recognition of the need for rapidly decarbonizing the transportation sector and the remaining liquid fuels. Based on the energy

demand projections in Appendix H the doubling of biofuel demand assumes a nearly fourfold increase in renewable diesel and an implied decline in ethanol demand by 2045 which is out of balance given market conditions and our comments.

Implied, because in Appendix H, gasoline and ethanol are lumped together while diesel and renewable diesel are correctly listed separately. Clearly, the gasoline and ethanol demand numbers should be broken out and modeled separately as they are wholly different fuels and the opportunities for higher ethanol blends can be reflected in that analysis, enabling further petroleum replacement, GHG reductions, consumer benefits and a strengthened Final Scoping Plan.

To date, the most comprehensive modeling of achieving carbon neutrality in California by 2045, is contained in the AB 74 ITS study, "Driving California's Transportation Emissions to Zero" (April 2021). The study assumed that by 2030, all the gasoline sales would be E15. This assumption can be further adjusted by increasing E15 penetration before 2030 and showing material increases in E85 sales.

In conclusion, the fuels section of the Scoping Plan should be expanded to specifically recognize the GHG, criteria pollutant and cost advantages of ethanol and other biofuels to accelerate the objectives of the Scoping Plan providing both immediate and sustained decarbonization of the liquid fuels that will be in use in California for decades to come. Without a clear and strong low to zero carbon liquid fuels component alongside aggressive electrification, California will not achieve carbon neutrality by 2045.

We appreciate the leadership of California on carbon policy and look forward to continued collaboration with CARB on the finalization of the 2022 Scoping Plan.

Sincerely,

Kelly Davis
VP of Regulatory Affairs