



June 24, 2022

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

Re: Fuel Freedom Foundation comments on the Draft 2022 Scoping Plan

Dear Chair Randolph and Board Members,

Fuel Freedom Foundation appreciates the opportunity to comment on the Draft 2022 Scoping Plan. Fuel Freedom is a non-profit 501(c)(3) focused on advocating for policies to diversify the transportation fuel supply in the light-duty sector, to alleviate the severe and persistent consequences of petroleum dependence, including economic, environmental, air quality, health, national security and climate.

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. Research shows that earlier emissions reductions are more impactful than those achieved later.¹ With transportation accounting for fully half of California's GHG emissions, the sector is a lynchpin for meeting the State's ambitious climate change goals. Renewable liquid fuels like low- to zero-carbon ethanol can play an important role to fuel the combustion engines that will dominate California roadways for many years to come.

Even with low ten percent blends dominating the marketplace, ethanol has delivered more than 30 percent of the total GHG reductions under the LCFS since the program's inception in 2011. Therefore, focusing California policies on deploying higher blends of low- to zero-carbon ethanol offers an immediate opportunity to significantly reduce GHG emissions from the transportation sector.

Further, the Executive Summary of the Draft 2022 Scoping Plan highlights the need to ensure equality and affordability. Recent real-world experience demonstrates the value of liquid fuel diversity to provide this assurance by severing the direct relationship between petroleum prices and retail fuel prices. ***While gasoline prices rapidly rose in conjunction with Russia's invasion of Ukraine, E85 prices in California remained stable***, widening the retail price differential

¹ Frank, J. et al., *Fuel Communications*, "Quantifying the Comparative Value of Carbon Abatement Scenarios Over Different Investment Timing Scenarios," State University of New York College of Environmental Science and Forestry at <https://www.sciencedirect.com/science/article/pii/S2666052021000108>, May 30, 2021



between gasoline and E85 up to \$2.50 a gallon or more, far exceeding any volumetric 'energy penalty' to increase affordability for drivers of flex-fuel vehicles (FFVs) in the State.

Ensuring that low-carbon alternatives to gasoline are widely available is critical to buffer consumers from price gyrations, as well as to continue aggressive decarbonization of the light-duty transportation sector while electric vehicles remain out of reach for many Californians for either charging infrastructure limitations or prohibitive up-front vehicle costs. Higher blends of low-carbon ethanol offer the most **immediate** and **affordable** path for greater reductions of GHG emissions from the light-duty fleet in California. However, wider adoption of higher blends of low- to zero-emission ethanol will require higher demand.

Consequently, to complement and support maximizing feasible GHG reductions from the Scoping Plan, **Fuel Freedom recommends that CARB amend the proposed Advanced Clean Cars (ACC II) regulations to include a requirement that all new internal combustion engine (ICE) vehicle sales in California from 2026 forward be FFVs.**

An FFV requirement for all ICE vehicles sold in the State from 2026 ensures that the future fleet of vehicles will be capable of running on low- to zero-carbon ethanol over their useful life, and that their drivers can take advantage of retail price discounts relative to gasoline.

Additionally, this requirement would provide for the sale and use of FFV plug-in hybrid vehicles (PHEVs) powered by renewable electricity and renewable liquid fuels under the proposed zero-emission vehicle (ZEV) requirements from 2035. The lifecycle GHG benefits of FFV PHEVs running on 100% renewable low- to zero-carbon liquid fuel would be equivalent to battery electric vehicles with a lower upfront cost. Research shows that FFV PHEVs are also central to the most cost-effective pathway for GHG reductions in light-duty transportation in California.²

OEM automakers have already demonstrated the ability to produce FFVs at scale at minimal incremental cost compared to equivalent ICEs. ***By providing an alternative for lower-income consumers, this low-cost compliance option can be instrumental in meeting the equity goals of both the ACC II regulation and the broader policy umbrella of the Scoping Plan.***

To reflect market realities of increasing E85 use due to favorable pricing, evaluate the potential of an FFV requirement, and reflect the probable approval of E15, CARB should also **update draft Scoping Plan modeling to separate gasoline and ethanol**. The demand assumptions for transportation fuels provided in Appendix H of the Draft Scoping Plan show approximately a doubling of biofuel demand by 2045. However, gasoline and ethanol are lumped together rather than treated as distinct fuels. Ethanol should be broken out and modeled separately and incorporate the potential role for higher ethanol blends.

² LifeCycle Associates, "Assessing Greenhouse Gas Emission and Petroleum Reduction Scenarios for the U.S. and California Transportation Sectors – Final Report," March 2019



California leads the nation in decarbonizing the transportation sector. The State has an opportunity to also lead in embracing the reality that liquid fuels will dominate the on-road light-duty fleet for 20 years or more. To ensure California continues to meet its ambitious GHG goals and at the same time promote equity in the Scoping Plan, CARB should recognize the potential role of low- to zero-carbon ethanol to fuel these vehicles and adopt complementary measures that facilitate their use.

We look forward to continued collaboration with CARB on finalizing the 2022 Scoping Plan.

Sincerely,

Robin Vercruse
VP of Policy and Environment
Fuel Freedom Foundation