

April 21, 2025

The Honorable Liane Randolph, Chair State of California Air Resources Board 1001 | Street Sacramento CA 95814

## RE: Comments to the California Air Resources Board on Proposed Modifications (Third 15- Day Changes) to the proposed Low Carbon Fuel Standard (LCFS) Amendments

The Green Hydrogen Coalition ('GHC') is appreciative of the California Air Resources Board's (CARB) Low Carbon Fuel Standard Amendments (LCFS). The GHC is a California educational 501(c)(3) non-profit organization that was formed in 2019 to recognize the game-changing potential of "green hydrogen" to accelerate multi-sector decarbonization and combat climate change. The GHC's mission is to facilitate policies and practices that advance green hydrogen production and use across all sectors of the economy to accelerate a carbon-free energy future and a just energy transition.

The GHC appreciates CARB's leadership in advancing clean fuels via the LCFS program and is especially excited by the added ambition in the targets being set by updated regulation. This program is widely considered one of the most successful programs in North America in achieving the deployment of lower carbon fuels and the GHC applauds CARB staff for their thoughtful and forward- thinking proposed modifications to the LCFS. The GHC respectfully submits the following comments to CARB.

## GHC recommends strengthening demand and supply signals for alternative fuels – including allowing incentives for renewable H2 as an input for other transportation (non-road) fuels.

At the time of the initial adoption of LCFS update in November 2024 there was considerable uncertainty about how the new Federal Administration would alter, hinder or otherwise stop the incentives made available by the Inflation Reduction Act. Subsequently, we have



witnessed the Federal Administration pause all support for incentive programs in the nearterm, including to Hydrogen Hubs that had already been identified for funding by the prior Administration, and we fear this will become a permanent pause. As a result, the need to focus California policy to deliver the right demand signals for renewable hydrogen production is now more important than ever.

In the consideration of alternative fuels, specifically non-fossil fuels, CARB should focus on developing strong demand signals as it lays out its regulations. This should be a key driver for the design of the LCFS, rather than compartmentalizing fuels into specific usage categories. Namely, under the current proposed rules there is a prioritization on renewable hydrogen used as a finished fuel for road transportation within the LCFS, and not for renewable hydrogen used in the production of other low carbon fuels. Hydrogen can serve as a direct fuel and is an essential renewable energy input for other liquid transportation fuels, including but not limited to renewable ammonia, e-methanol, renewable diesel, or sustainable aviation fuel. These fuels are critically important to deeply decarbonize hard to abate sectors including some of the hardest to decarbonize sectors within the transportation sector such as maritime shipping and aviation. A key barrier to the use of renewable hydrogen for on road applications and for the production of these derivative fuels is its cost compared to status quo fossil fuels. Market signals that will encourage the scaling of renewable hydrogen production will drive down costs for all uses, on road and off road and even hard to abate sectors. The sooner we can scale the production of renewable hydrogen for all transportation end uses, the faster we can achieve our clean energy transition.

In the near term, the available supply of renewable hydrogen will be relatively low compared to the current availability of fossil derived hydrogen. A key problem that CARB and the broader renewable hydrogen economy needs to solve for is instituting the right signals to grow the supply and help ensure that the supply is available to sectors that are being prioritized in other complementary policies (i.e. Advanced Clean Fleets and Advanced Clean Trucks). There are two paths to consider: one in which the LCFS simply prioritizes directing the limited amount of renewable hydrogen to on-road use and a second one that prioritizes scaling the amount of renewable hydrogen produced in California without restricting or directing the final use.

It is worth noting that a ready and available supply of electrons on our grid is enabling the growth in adoption of battery electric vehicles that use substantially more electricity relative to an average household. Except for very large charging operations (at the multi-megawatt scale), it is relatively easy to utilize the grid to power battery electric vehicles throughout California without a need to prioritize electrons for on-road use. Similarly, if California can create the underlying infrastructure that can deliver copious amounts of renewable hydrogen to generate ammonia, e-methanol, renewable diesel, or sustainable



aviation fuel, it will help guarantee a much larger supply of the resource (and have a much lower-cost, given economies of scale that will be achieved). In other words, if the LCFS were to help catalyze the development of alternative renewable fuels which represents a significant potential near term off take, this would help drive needed scaled demand for renewable hydrogen and facilitate the scaling of renewable hydrogen production, transport and storage facilities, accelerating cost reduction and ultimately creating a virtuous cycle for faster on-road adoption of renewable hydrogen as a direct fuel as well. By not restricting final use of the hydrogen, California can also unlock its vast renewable potential to produce renewable hydrogen at scale and be able to achieve economywide deep decarbonization much faster.

Accordingly, the GHC requests that CARB include additional direction to support the market demand and supply for hydrogen as a part of its Board Resolution adopting LCFS amendments. Specifically, GHC requests the Board Resolution require CARB staff to develop additional demand signals to enable the development of lowest-cost hydrogen for the transportation market, including incentives to utilize renewable hydrogen as an input to transportation fuels for the maritime and aviation sectors.

Thank you for the opportunity to provide comments on this important program for our energy transition. We look forward to getting to work on implementation and progress to meet our shared goal of decarbonizing the transportation sector.

Sincerely,

## **Janice Lin**

Founder and President Green Hydrogen Coalition