

February 20, 2024

Ms. Liane Randolph
Chair
California Air Resources Board
1001 I Street
Sacramento, CA 95864

Re: CARB Proposed Low Carbon Fuel Standard Amendments

In response to California Air Resources Board (CARB)'s proposed updates to the Low Carbon Fuel Standard (LCFS)¹, Japan Hydrogen Forum (JH2F) is pleased to submit the following comments for consideration. JH2F is an organization formed in 2021 to contribute to the goal of decarbonization in the United States, consisting of 31 Japan-affiliated companies with hydrogen related technologies from production, carrier conversion, transportation, storage to utilization, including hydrogen fuel cell providers for heavy-duty (HD) truck and cargo handling equipment OEMs and retail hydrogen refueling station (HRS) providers in California. We would like to express our sincere gratitude for your staff's work on the development of the proposed rule and their commitment to improving the LCFS to achieve carbon neutrality by 2045 and reduce greenhouse gas emissions 85% below 1990 levels by 2045.

While acknowledging the continued improvements to the program, we would propose some critical refinements to ensure the success of hydrogen, and its necessary role in meeting California's 2045 carbon neutrality goal.

Increasing CI Targets and Market Stability

We strongly support staff's recommendation of the 30% reduction in fuel carbon intensity (CI) by 2030 and a 90% reduction in fuel CI by 2045 from a 2010 baseline. However, we are concerned that the historically low credit prices² will continue through 2025, which has a chilling effect on providers' financing further stations and is increasingly discouraging OEMs from committing capital to Hydrogen fuel cell light-duty (LD) and HD vehicles. Unlimited biodiesel and renewable diesel supply has been one of the leading causes of the LCFS credit market's inability to effectively support other pathways.

We therefore urge starting with tighter targets and policies that can result in the immediate recovery of credit prices. We request the Board implement the one-time 5% CI step down and the auto acceleration mechanism (AAM) sooner than the proposed date.

¹ <https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2024/lcfs2024/isor.pdf>

² https://r.search.yahoo.com/_ylt=AwrgzbOD88tlcAQAl.ZXNy0A; ylu=Y29sbwNncTEEcG9zAziEdnRpZAMEc2VjA3Ny/RV=2/RE=1709074564/RO=10/RU=https%3a%2f%2fww2.arb.ca.gov%2fresources%2fdocuments%2fmonthly-lcfs-credit-transfer-activity-reports/RK=2/RS=yu36..J0ANG2sS86H065qyHr788-

Infrastructure Crediting

Crediting Period

The shift from a 15-year to a 10-year timeframe for HRI crediting has a significant impact on station financing and economics. Notably, this change introduces a new challenge for HD stations, which are both larger and more capital-intensive. The shorter 10-year timeframe contrasts with the previously longer capacity crediting period, creating a misalignment with the capital costs associated with hydrogen station infrastructure. Reevaluating the timeframe in consideration of the unique characteristics and financial requirements of hydrogen station infrastructure is crucial for fostering a conducive environment for hydrogen development in this sector.

LD HRI program

In addition to the crediting period of 10-year timeframe, limiting capacity to 600 kg/d, hinders the growth of the HRS network. This is especially true for the 600 kg/d capacity cap given that medium-duty (MD) trucks typically fill at neighborhood fueling stations, not HD stations along freeways (i.e., truck stops). We urge the Board to simply extend the LD HRI program “as is” and revisit in a few years to ensure the program is operating as intended and serving disadvantaged communities.

Inequity in Capacity Crediting Standards

We agree that renewable hydrogen production is the ultimate pathway for transportation, however, the imposition of an 80% renewable content requirement exclusively for HRI may be premature and overly restrictive, particularly in comparison to Fast-Charging Infrastructure (FCI). This requirement places hydrogen at a competitive disadvantage against other energy sources, which benefit from substantial federal, state, and ratepayer subsidies not extended to hydrogen, and could significantly increase relative costs. We believe that the exclusive application of this requirement to hydrogen tilts the scale heavily against fuel cell pathways. We suggest that this additional requirement should be eliminated as it is unnecessary and counter to the carbon intensity focus and technology neutral principles that have driven innovation and investment in the LCFS program to date.

We appreciate your consideration and thoughtful feedback to address our concerns. We look forward to contributing to California’s goal of zero-emissions transportation.

Sincerely,



Takehito Yokoo
Chairperson,
Japan Hydrogen Forum