

FIRSTELEMENT FUEL

FirstElement Fuel Inc. | 5281 California Ave, Suite 260, Irvine, CA 92617 | 949-205-5553

Ms. Rajinder Sahota
Deputy Executive Officer, Climate Change and Research
California Air Resources Board
1001 I Street, Sacramento
California 95814

Subject: Comments on April 10, 2024 LCFS Workshop

Dear Ms. Sahota,

Thank you for the opportunity to comment on the subject workshop as well as the proposed changes to the LCFS program as identified in the Initial Statement of Reasons¹. As you may know, FirstElement Fuel (FEF) is largest retail hydrogen station provider in California due to the aggressive regulatory and policy instruments enacted by your Board, the most important of which is the LCFS program and the Hydrogen Refueling Infrastructure (HRI) capacity credits. The number one challenge we currently face is the historically low credit prices (< \$60/metric ton CO₂) that have persisted since 2023, resulting in our need to increase prices at the pump and effectively stopping our ability to attract further capital to expand the hydrogen refueling station (HRS) network. We support staff's recommendations to enact a steeper step-down and accelerate the auto adjustment mechanism to bolster the credit prices as soon as possible.

Light-Duty (LD) HRI

As with our previous letter, we strongly urge CARB to maintain the same structure for the LD HRI program, specifically to keep the 1,200 kg/day capacity cap with no geographic restrictions to station locations. The existing program had been working well, and between 2020 and 2022 we were building an average of 5 LD stations until the credit prices fell to, and have stayed at, these unprecedented lows. Once the mechanisms are put in place to raise credit prices, we are confident that we will be able to once again attract investments to continue building LD stations. In fact, the capacity cap should be increased to 1,600 kg/day to accommodate medium-duty (MD) trucks that will fill at local HRS.

If the recommended cap of 600 kg/day as stated in the ISOR is enacted for LD HRI, the result will not only disincentivize larger LD stations that would have grown the California HRS network to accommodate LD/MD, but it will also increase queuing and deliveries to stations, causing greater congestion and traffic, and increased emissions to the community – the exact opposite of the stated purpose for changing the LD HRI. In fact, these are the exact reasons we pivoted away from our first-generation, 250 kg/day stations, and deployed larger, liquid hydrogen stations.

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

FIRSTELEMENT FUEL

FirstElement Fuel Inc. | 5281 California Ave, Suite 260, Irvine, CA 92617 | 949-205-5553

Heavy-Duty (HD) HRI

We appreciate staff working with the hydrogen station developers to craft the program for heavy-duty HD HRI. We are confident that the proposed creation of the HD HRI will allow station developers to attract the needed investment to build stations with only minor changes to the proposed program. Specifically, we encourage elimination of the location constraints since many good HD fueling sites are not within one mile of FHA designated alternative fuel corridors or adjacent to truck parking lots. Further, a 15-year program will provide greater certainty for those investments, especially since the stations are much larger and more expensive than LD HRS. And finally, if a station is funded through local funds (as opposed to just state or federal grants), the proposed geographic restrictions should be waived.

80% Renewables by 2030

The goal of the LCFS program is to reduce carbon, and hydrogen is CI 36² vs the grid at CI 81³ gCO₂e/MJ. So, the program is effective in decarbonizing hydrogen for transportation. However, renewable pathways for hydrogen are expensive and not readily available in-state. This will take time to develop, and ARCHES⁴ is on-track to do just that. But the timeframe for that production is well past 2030. We urge staff to maintain the 40% renewable requirement for hydrogen and conduct annual reviews to determine if increased renewable content is warranted.

HyCAP and HyScape

We still have not been able to “test drive” the HDS HyCAP model to determine the credits for multi-use stations. Although we are confident that we will arrive at a workable solution, a definitive strategy and iterations on the modeling should be allowed before the regulation is finalized and brought to the Board.

We appreciate all of staff’s hard work in bringing these changes to the Board in a timely fashion. With a few minor changes, we believe the LCFS program will continue transforming the transportation sector to zero emissions and carbon neutrality.

Sincerely,



Matt Miyasato, Ph.D.
Chief Public Policy & Programs Officer

² https://ww2.arb.ca.gov/sites/default/files/2024-04/quarterlysummary_Q42023.xlsx

³ https://ww2.arb.ca.gov/sites/default/files/classic/fuels/lcfs/fuelpathways/comments/tier2/2023_elec_update.pdf

⁴ <https://archesh2.org/about/>