

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

Subject: LCFS 15-day Notice Comments

Dear Ms. Sahota,

FirstElement Fuel (FEF) is pleased to provide these comments on the proposed changes in the subject notice. While we are encouraged by some of the proposed language on the Hydrogen Refueling Infrastructure (HRI) provisions, we are still very concerned about the delayed timing of the regulation and the overall ambition of the program. Our overall comments are prioritized below.

### **Program Ambition**

Although staff has outlined a steeper initial stepdown of 9% (compared to the original 5%), the size of the credit bank will likely remain at historically high levels until post-2027. This 3 year period of depressed value will exacerbate the financial hardship our industry has suffered and further limit our ability to aggressively build hydrogen refueling stations (HRS) as desired by the state. The delays in amending this regulation and bringing credit prices back to reasonable levels has significantly damaged our reputation with fuel cell vehicle drivers, the vehicle manufacturers and the policy makers in the legislature, and has crippled our ability to continue building stations due to lack of capital. We urge the staff to adopt a steeper stepdown followed by implementation of the AAM as soon as practicable.

### **Renewable Content**

We applaud the vision of the staff for the aggressive renewable content (80% after 2030) proposed for hydrogen, but we are equally concerned about a level playing field with electricity and the grid. Furthermore, staff is eliminating fossil-based feedstock for hydrogen after 2030. These actions overly rely on production of renewable hydrogen through the ARCHES program, which will likely not come online until after 2030. We believe that hydrogen and the grid should maintain equitable renewable content and carbon intensity. So, we recommend that the renewable hydrogen content be made consistent with grid electricity.

## **HRI – Light and Medium Duty (LMD)**

We thank the staff for adjusting the HRI program to incorporate MD with LD, which is how the US truck makers envision fueling of their vehicles<sup>1</sup>. We agree with the deletion of the disadvantaged community geographic requirements but remain concerned regarding the low station capacity requirements at 2,000 kg/d with a 50% derate. Our latest generation LD stations are capable of 1,600 kg/d and garner 1,200 kg/d HRI credits. Under the staff proposal, we would need to build larger stations that would receive even less HRI credit than the current program for MD trucks. We would need to build stations 20% larger and receive 20% less credits.

Furthermore, staff is also proposing to limit credits by capping the cumulative credit generation to 1.5 times the capital expenditures (capex). The HRI capacity credit is intended to offset the station's ongoing operations and maintenance (O&M) costs and thereby reduce the cost to the drivers. Tying the cumulative HRI credits to capex ignores this intent. It reduces the ability of station providers to (a) provide ongoing O&M support while keeping hydrogen prices low and (b) continue building additional stations. We highly recommend that the 50% derate for public stations and the capex limit be removed.

We also believe that further constraining participants in the HRI program to 1% of total deficits will slow the growth of the network, especially since we have grants from the California Energy Commission for an additional 41 LD stations under GFO-19-602 and have made significant capital investments in leases, permitting and equipment for these stations. We did not intend to be the market leader in retail stations and hoped for competition to increase fuel availability, lower supply costs, and increase vehicles on the road. However, with Shell's departure from the LD station market, we do not want to be unintentionally disincentivized from building and deploying stations in the future. We ask that any stations previously awarded through competitive solicitations by the CEC be grandfathered into the existing HRI rubric at the 1,200 kg/d capacity cap.

## **HRI - Heavy-duty (HD)**

We appreciate staff including a HD HRI mechanism and expanding the proximity to the FHWA corridors to 5 miles instead of 1 mile. However, many HD station locations will necessarily be near warehousing centers or truck parking that are further than 5 miles from an existing or proposed corridor. We recommend adding a case-by-case approval mechanism by the Executive Officer. This could also include the exception of funding by local air districts or other local and regional entities that considered location in a competitive bid as opposed to only state or federal grants. We recommend this minor addition:

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[https://uscar.org/publications/?q=medium%20duty%20hydrogen&catid=50&show\\_pagination=1&paged=1&limit=20](https://uscar.org/publications/?q=medium%20duty%20hydrogen&catid=50&show_pagination=1&paged=1&limit=20)

# FIRSTELEMENT FUEL

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*§ 95486.4. Generating and Calculating Credits for ZEV Fueling Infrastructure Pathways for Heavy-Duty Vehicles.*

*(1) (B) (3) Has received capital funding from a State, ~~or~~ Federal, or local competitive grant program for heavy-duty hydrogen refueling that includes location evaluation as criteria.*

We also urge staff to reduce the discount (derate) of the station capacity as proposed by the California Hydrogen Coalition, California Hydrogen Business Council, and the Green Hydrogen Coalition in their May 10, 2024 letter. The original 50% discount rate was intended to prohibit over-credit generation while still incentivizing larger stations (6,000 kg/d maximum). Staff's proposal to increase the stepdown to 9% and 30% by 2030 will further reduce the credits allowed for HRI making the discount in effect even greater. We recommend either a lower discount rate of 25% instead of 50% OR allow increased station capacity of 8,000 kg/d to address this new stepdown and 2030 target.

We appreciate CARB staff's work on enabling zero-emissions transportation technologies, and our company was built to enable these same goals through infrastructure. Indeed, the LCFS HRI program is critical to our continued success. However, without the changes recommended herein, we are concerned about the sustainability of our business and the ability of the state to reach our common zero emissions, carbon intensity goals. We look forward to working with staff to implement these changes.

Respectfully,



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