



March 15, 2023

California Air Resources Board  
1001 "I" Street  
Sacramento, CA 95814

RE: Comments on Public Workshop to Discuss Potential Changes to Low Carbon Fuel Standard (LCFS) and Draft Regulatory Text

Dear California Air Resources Board Staff,

Thank you for the opportunity to provide feedback on the recent LCFS workshop and on the draft regulatory text for the LCFS Program. Forum Mobility (Forum) strongly supports the LCFS program and appreciates the California Air Resources Board (CARB) commitment to electrification of medium- and heavy-duty trucks and deployment of zero-emission charging infrastructure, and inclusion of a Fast-Charging Infrastructure (FCI) pathway.

Forum Mobility, headquartered in Oakland, California, provides turn-key zero-emission trucking solutions to help accelerate the deployment of zero-emission drayage trucks throughout California. Many smaller fleets and independent owner operators face barriers to adoption, including awareness of zero-emission vehicle options, the high up-front cost, navigating the incentive programs, and installing or accessing the necessary fueling infrastructure. Forum helps overcome these barriers to adoption by developing, building and operating the charging infrastructure, as well as purchasing and leasing class 8 zero-emission electric trucks – with the ability to secure available incentives to pass along to the truck driver or fleet owner. Forum provides a one-stop solution for a monthly fee for ‘charging as a service’ and/or ‘truck as a service.’ We are currently developing upwards of 20 depots in and around the ports of Oakland, Long Beach, and Los Angeles, and along corridors to common freight destinations for drayage operators.

To help accelerate the deployment of zero-emission drayage trucks, particularly for small fleets and independent operators, we respectfully submit the following comments on the Medium- and Heavy-Duty (MHD) ZEV Refueling Infrastructure sections:

- **Site Size Limits:**

For FCI total site size, we recommend a maximum of 10 MW of chargers at or above the minimum size. We respectfully request that this maximum exclude lower-level charging infrastructure onsite, as many sites and charging depots will include a combination fast-charge and lower-level charging infrastructure to accommodate and optimize MHD duty cycles.

- **Charger Size Requirements:**

For FCI chargers, we suggest a minimum size of 60 kW, and no maximum cap. For many fleet operators, 60 kW serves their charging needs, which is often done overnight and after daily operations.

- **Overbuilding:**

We recommend establishing a limitation on how much a site can be overbuilt, which refers to the installation of dispenser capacity in excess of the load hosting capacity available at a site. Consider a site that has 1MW of load hosting capacity. If the program creates a cap of 10MW for FCI crediting purposes, this creates a perverse incentive for developers to install up to 10MW of dispensing capacity despite being unable to utilize that 10MW of dispensing capacity.

In addition to a cap on the overall capacity that MHD FCI may receive credit, we recommend a ratio that applies to the amount of installed capacity that may receive MHD FCI in relation to the load hosting capacity currently available *or* that can be matched with an application for upgraded load hosting capacity with the appropriate utility. An appropriate ratio could be 2:1 installed capacity to load hosting capacity at the site.

- **Location Limitations:**

We are concerned that the proposed requirement for a MHD-HRI station to be within one mile of a Federal Highway Administration Alternative Fuel Corridor will further limit, constrain, and delay the deployment of MHD charging infrastructure. In addition, the Advanced Clean Fleet regulation will require goods movement to be ZEV across the state, meaning charging infrastructure will be needed beyond the close vicinity of corridors. The proposed limitation will make identifying sites with adequate power availability, sufficient space, good access and egress, and correct zoning exceedingly challenging and will slow the deployment of MHD FCI. Therefore, we respectfully request removing the requirement to be within one mile of a Federal Highway Administration Alternative Fuel Corridor. If a specific radius is needed, we recommend at least a 10-mile radius from a Federal Highway Administration Alternative Fuel Corridor.

- **Public Accessibility:**

We share ARB's goal to maximize the utilization of charging infrastructure. However, the needs and use cases of MHD vehicles and drivers are quite different than LD. MHD drivers require a safe, guaranteed place to charge overnight that requires secure and controlled access, as the vehicles cost upwards of \$400,000 and the cargo can be quite valuable as well. In addition, the fast-charge, high-voltage charging equipment requires monitoring and training to safely operate. Therefore, we recommend the definition of "publicly available" for MHD FCI consider these needs and use cases that are particular to the MHD sector. We also support the draft language for hydrogen that states, "The station must be open to at least two different trucking companies."

- **Additional Requirements:**

The proposed language includes "The FSE must be open to vehicles with gross vehicle weight 8,501 lbs and greater, meaning that no obstructions or obstacles exist to preclude

these vehicles from entering the FSE premises, and no formal or registered equipment training shall be required for individuals to use the FSE.” As noted above, to encourage support operator safety, we respectfully request removing this language and allowing for safety training on FCI-supported charging equipment.

In addition, as noted above, the needs and use cases of MHD vehicles and drivers are quite different than LD. Therefore, public point-of-sale methods designed for public light duty infrastructure, which add costs and are unnecessary for MHD charging servicing fleets.

- **Allowable Costs for FCI:**

The cost of land for MHD charging is significantly greater than light-duty charging. Light-duty charging can leverage existing public parking spaces at malls, coffee shops, or parking garages. However, MHD charging cannot pursue the dual-use approach due to space requirements, safety considerations, zoning issues, and limited availability of sufficient power. MHD fast-charging usually requires purchasing or committing to a long-term lease for the land, which is a significant project cost. Therefore, we respectfully request include the cost of the land as recoverable and allowable costs in a MHD FCI program.

Thank you again for the opportunity to provide our comments on the draft regulatory text and feedback from the recent LCFS public workshop. We look forward to continuing to work with staff to develop a successful MHD FCI pathway.

Sincerely,

Adam Browning  
EVP, Forum Mobility