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EV Realty Comments on the February 22 Workshop on Potential Changes to the Low Carbon Fuel Standard

Dear California Air Resources Board,

EV Realty appreciates this opportunity to provide comments on the Potential Changes to the Low Carbon Fuel Standard program presented at the February 22, 2023 workshop. EV Realty develops, deploys and owns Multi-fleet EV Charging Hubs for commercial fleets in California and nationally. EV Realty's hubs provide charging solutions for multiple fleet operators in grid advantaged locations that maximize existing utility infrastructure to efficiently and expeditiously support the transition to a zero emissions vehicle future.

The LCFS is the only long-term funding source in California that can enable a statewide transition to ZEVs and zero emissions transportation. As California moves aggressively toward 100% ZEVs across all vehicle class types, the LCFS must refocus on delivering the ZEV infrastructure necessary to meet those goals.

EV Realty offers these comments in response to the PRELIMINARY DISCUSSION DRAFT of Potential Regulatory Amendments to the Low Carbon Fuel Standard and Potential Amendment Concepts:

1. **CARB should adopt the proposed 30% CI reduction by 2030 trajectory, with an immediate step down in 2024, and a permanent ratchet mechanism based on ensuring credit price stability.**

2. **A Fast Charging Infrastructure (FCI) credit pathway is critical for the rapid development of a Medium and Heavy Duty zero-emissions electric vehicle market in California.**
    - CARB should reserve a minimum of 2.5% of credits for MHD FCI
    - CARB should not overly restrict location, size, access, and point-of-sale eligibility for FCI credits given the nascent market and multitude of charging solutions and approaches under development to service MHD vehicles and particularly fleets
        i. **Location:** CARB should <u>remove</u> the requirement that EV charging must be located within one mile of a Federal Highway Administration Alternative Fuel Corridor to be eligible for FCI.

ii. **Minimum charger size:** CARB should establish a minimum charger capacity requirement for FCI of no greater than 60 kw to ensure maximum flexibility for innovation in charging solutions.

iii. **Access:** CARB should allow eligibility of facilities that serve more than one fleet and remove unnecessary requirements that prevent the safety and security of MHD fleets and their cargo.

iv. **Point-of-sale:** CARB should remove requirements for public point-of-sale methods designed for public light duty infrastructure, which add costs and are unnecessary for MHD charging servicing fleets.

1. **CARB should adopt the proposed 30% CI reduction by 2030 trajectory, with an immediate step down in 2024, and a permanent ratchet mechanism based on ensuring credit price stability.**

EV Realty agrees with CARB's proposal to establish a minimum 30% CI reduction by 2030 trajectory and inclusion of a permanent ratchet mechanism. CARB must also institute an immediate acceleration and "step-down" in 2024 to restore credit price viability.

A compliance target acceleration mechanism **should be linked to average credit price**. Long term planning and investment in new infrastructure requires price certainty, and only a price-based trigger can ensure such price certainty and necessary market stability. We propose a **credit price floor of at least $120**, based on EPA's recently calculated low-end estimate of the social cost of carbon. We note that the EPA report is a draft[1] and calculations may be revised upward, which CARB should monitor to guarantee a LCFS credit price floor never drops below $120 or any higher social cost of carbon that may be determined either federally or by the state of California.

The CI increase in cases where credit prices dip below the floor should advance existing compliance targets by 1 year each time such a situation arises.

[1] EPA, 2022. "EPA External Review Draft of Report on the Social Cost of Greenhouse Gases: Estimates Incorporating Recent Scientific Advances," https://www.epa.gov/system/files/documents/2022-11/epa_scghg_report_draft_0.pdf

2. **A Fast Charging Infrastructure (FCI) credit pathway is critical for the development of a Medium and Heavy Duty zero-emissions electric vehicle market in California.**

CARB should reserve a minimum of 2.5% of credits for MHD FCI. To meet the ambitious targets outlined in the proposed Advanced Clean Fleets rule (ACF) for priority fleets, California will need to deploy charging infrastructure *in advance of* vehicle deployment. If adopted, the ACF will require that the state install at least 50 MHD chargers per day every day through 2030,[2] and likely more than 200 MHD chargers every day from then through 2045. Establishing a robust MHD FCI is one of the most valuable things that CARB can do to accelerate the speed and scale of charging infrastructure deployment. Even for Multi-fleet EV Charging Hubs that expect to meet high utilization, and not need to rely on FCI for the full ten years, the availability of FCI is critical for enabling project financing and deployment of charging *in advance* of vehicle deployments. Fleet owners need to know they will have access to sufficient and reliable charging *before* they commit to vehicle purchases. If they are not able to rely on onsite charging, because of lack of electricity capacity or other site characteristics, Multi-fleet EV Charging Hubs can provide a solution. FCI solves "the chicken or the egg" dilemma and unlocks capital and deployment of charging to enable vehicle fleet conversion.

CARB should not overly restrict location, size, access, point-of-sale eligibility for FCI credits. The proposed ACF has requirements for all medium and heavy-duty vehicle classes from 2b through 8, as illustrated in the table below.[3] We note that there is a similar number of trucks in class 2b-3 that are subject to ACF as there is in Class 7-8 tractors, and even more class 4-8 vocational trucks. Given the diversity of vehicle class types and operational requirements across these classes, and the nascency of the market for vehicles and charging solutions, CARB should not overly restrict location, size, access, point-of-sale eligibility for FCI credits.

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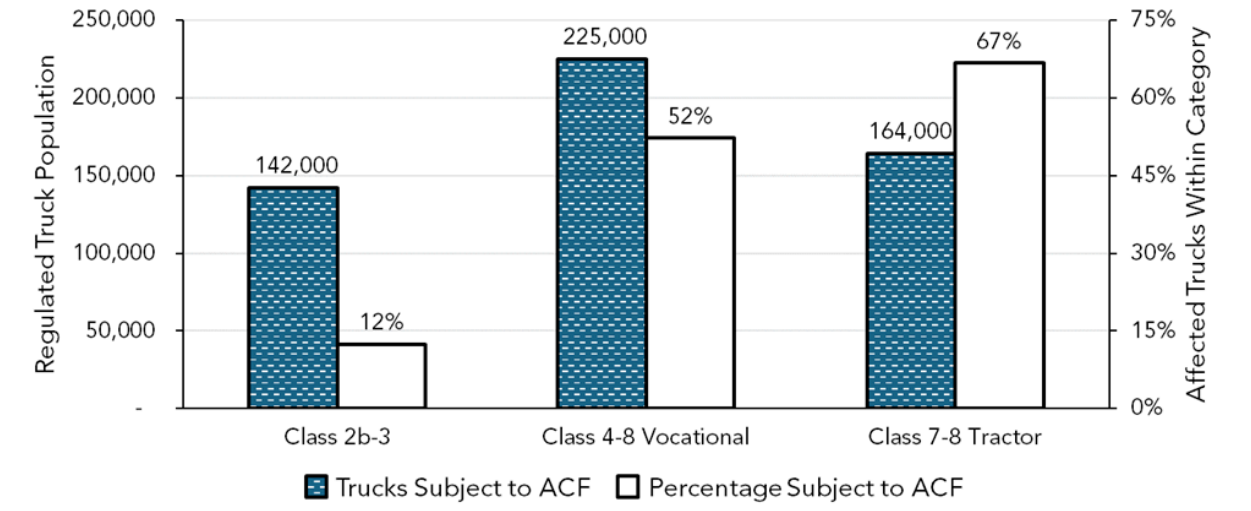
[2] CEC, 2022. "Assembly Bill 2127 Electric Vehicle Charging Infrastructure Assessment - Analyzing Charging Needs to Support Zero-Emission Vehicles in 2030," https://www.energy.ca.gov/programs-and-topics/programs/electric-vehicle-charging-infrastructure-assessment-ab-2127

[3] https://ww2.arb.ca.gov/resources/fact-sheets/advanced-clean-fleets-regulation-summary



It is imperative to provide flexibility for market innovation and not create unintended consequences through overly restrictive siting requirements for EV charging infrastructure. We are concerned that some of the proposals CARB has advanced assume that refueling and recharging ZEVs must necessarily mirror the ways in which gasoline and diesel fueling infrastructure is currently designed. This is not the case. Nor should the state seek to design a program around ZEVs that is based on legacy infrastructure and could have unintended and adverse consequences on market development. Additionally, it's important to recognize the differences between the MHD fleet market and the LD passenger vehicle market, which much of the legacy language in the proposed text draws from.

i. **Location**: EV charging infrastructure has different siting requirements than other types of liquid or gaseous fueling infrastructure. EV charging does not require access for liquid refueling trucks nor setbacks due to hazardous material storage. As a result, EV charging can be located closer to the point where vehicles are domiciled and used. These locations may not be on or near highway corridors for many of the vehicle fleets that must be electrified. The other siting requirement that EV charging must consider, is the availability of utility grid infrastructure with capacity to interconnect new loads. This also may not be near highway corridors.

   EV Realty is developing Multi-fleet EV Charging Hubs for commercial fleets, and has identified severe grid constraints associated with siting EV charging infrastructure. Creative solutions are required to ensure those constraints do not delay or result in excessive costs for fleet customers seeking conversion to EVs. In order to overcome hurdles associated with a lack of grid capacity at individual fleet customer sites, EV Realty is developing hubs that provide multiple fleets

dedicated access to charging based on locations that serve their operational requirements, optimize grid interconnection, and ensure the security and safety of their vehicles and cargo. These Multi-fleet EV Charging Hubs provide the added benefit of increasing overall charging utilization to enable more vehicles to charge without triggering costly system upgrades, thereby reducing the overall cost for everyone. However, the optimal location for these Hubs is not always within one mile of a highway corridor. Therefore **we urge CARB to remove the requirement that EV charging must be located within one mile of a Federal Highway Administration Alternative Fuel Corridor to be eligible for FCI.**

ii. **Minimum charger size:** Because EV charging infrastructure can be located near the point where vehicles are domiciled, super fast charging that seeks to replicate liquid fueling times for combustion vehicles is neither necessary nor desirable in all cases. Bigger is not necessarily better, when it comes to fast charger capacity for MHD fleets. In some cases, fast charging capacity of 60kW is sufficient for meeting the operational requirements of MHD fleets located at Multi-fleet Charging Hubs. Based on market research, there is a preponderance of fast charging equipment being developed based on 60kW modular scale. We recognize that there will be a multitude of charging approaches and solutions developed to service MHD fleets, think an arbitrary size limit on fast charging capacity could result in perverse consequences, whereby charging providers oversize charging capacity to obtain LCFS credits, resulting in suboptimal charger utilization and increasing stress and cost on the grid. Therefore **we urge CARB to establish a minimum capacity requirement for FCI chargers of no greater than 60 kw to ensure maximum flexibility for innovation in charging solutions.**

iii. **Access and Eligibility:** CARB should ensure eligibility for FCI crediting for facilities that serve more than one fleet and remove unnecessary requirements that prevent the safety and security of fleets and their cargo. Multi-fleet EV Charging Hubs provide a solution for fleet operators without ready access to onsite charging. For these fleet operators, security and safety of vehicles and their cargo as well as guaranteed availability of charging is imperative. Specifically, we're concerned about proposed language regarding "obstructions or obstacles" that might preclude gates and/or fencing. To ensure the safety of fleets and their cargo that may park for extended durations at a Multi-fleet EV Charging Hub, it is necessary to have gates and/or fencing around the facility for security. Therefore **we urge CARB to strike the phrase, "meaning that no obstructions or obstacles exist to preclude these vehicles from entering the FSE premises"**

from § 95486.3 b.4.B. and clarify FCI eligibility for facilities that service more than one fleet in the regulation.

iv. **Point-of-sale:** Public point-of-sale methods designed for light duty infrastructure, are unnecessary for MHD charging solutions, specifically Multi-fleet EV Charging Hubs, and would add unnecessary costs. Therefore **we urge CARB to strike § 95486.3 b.4.C. from the draft regulations.**

Conclusion

EV Realty applauds CARB Staff and the Board continuing to evaluate and design the California Low Carbon Fuel Standard program to support the state's goals to reduce greenhouse gas emissions and accelerate zero emissions vehicles. EV Realty looks forward to a revised program that aligns with state ZEV goals and provides maximum flexibility for market innovation to optimize ZEV charging based on vehicle requirements.

Sincerely,
Suncheth Bhat
Chief Business Officer