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EV Realty Comments on the November 9, 2022 Public Workshop to Discuss Potential Changes to the Low Carbon Fuel Standard

Dear Dr. Laskowski,

EV Realty appreciates the opportunity to submit comments on the potential future changes to the Low Carbon Fuel Standard (LCFS) program. EV Realty develops, deploys and owns grid-scale charging infrastructure to electrify commercial fleets in California and nationally.

Summary

Since its inception, the LCFS has been a catalyst for the development of low carbon fuels that have reduced emissions and accelerated technology innovation in California with global impacts. We applaud CARB's visionary leadership and continued efforts to evolve this program over time to reflect changes in the policy and market landscape.

With the passage of AB 1279 and the Scoping Plan committing the state to carbon neutrality by 2045, plus aggressive timelines for transitioning to 100% zero emissions vehicles (ZEVs) in the adopted ACC2 and ACT regulations and pending Advanced Clean Fleets regulation, it is critical that the LCFS be updated to align with and support the state's transition to 100% ZEVs. Creating pathways to accelerate Medium- and Heavy-Duty (MHD) EVs through LCFS crediting for MHD EV charging is critical for achieving statewide ZEV goals. We are encouraged by the proposals CARB staff has brought forward and look forward to engaging with staff in the coming months and as formal rulemaking activities commence in 2023.

EV Realty offers these comments in response to staff's November 9, 2022 workshop, which address three topics:

1. **Scenario B is best aligned with statewide ZEV policy and can accelerate MHD EV adoption.** CARB staff should adopt Scenario B assumptions in its draft regulation, including a minimum 30% reduction in carbon intensity by 2030 requirement.
2. **Price certainty and stability is critical for MHD EV infrastructure deployment and market innovation**. CARB should adopt an immediate CI "step-down" in 2024 and a permanent ratchet mechanism that can accelerate the CI reduction curve beyond 30% by 2030 if the credit market is over supplied to capture additional emissions savings and maintain price stability.
3. **EV charging infrastructure is a necessary precursor to MHD EV adoption by fleets.** A minimum 10% of the crediting pool should be allocated to ZEV infrastructure credits.

1. Scenario B is best aligned with statewide ZEV policy and can accelerate MHD EV adoption.

Electrifying MHD fleets is critical for the state to achieve both its greenhouse gas emissions reductions goals, and reduce criteria air pollution in communities across the state. MHD vehicles are responsible for a disproportionate share of smog-causing pollutants and are a significant source of toxic air contaminants, as recognized in the Governor's Executive Order (N-79-20) and CARB's 2020 Mobile Source Strategy. According to data from Union of Concerned Scientists, MHD vehicles are responsible for more than 25 percent of GHG emissions, more than 60 percent of smog-forming NOx pollution, and more than 55 percent of lung- and heart-harming PM 2.5 pollution from California vehicles, even though they account for just 7 percent of vehicles in the state[1]. Recent regulations adopted and proposed by CARB, including ACC2, ACT, and ACF, have now plotted a clear course toward 100% zero emissions vehicles (ZEVs) as the solution for addressing pollution and climate emissions from the transportation sector. It is critical that the LCFS, the state's largest incentive program for clean transportation fuels be aligned to this ZEV future.

We therefore support CARB's proposed "Scenario 2" as the most aligned with ZEV deployment, and especially critical for enabling the deployment of MHD EVs as an emerging market segment. The LCFS has greatly aided the adoption of light duty ZEVs through support for residential, workplace, and public charging, and stimulated the largest EV market in the US. As the state transitions the MHD sector to ZEVs, it is vital that state incentive resources, especially from the LCFS, are aligned toward building out the necessary infrastructure to fuel these vehicles.

Scenario 2 best strikes a balance between achieving ambitious emissions reductions in the transportation sector while intentionally transitioning toward ZEV. We support CARB's adoption of Scenario 2 assumptions in its draft regulation, including a minimum 30% reduction in carbon intensity by 2030 requirement. The 30% CI reduction requirement should be considered the "minimum" CI reduction, and in the case that adoption of ZEVs and other qualifying credit technologies accelerates more quickly than expected, CARB should ensure its regulation provides flexibility to adopt a more stringent CI reduction using a ratchet mechanism.

2. Price certainty and stability is critical for ZEV infrastructure deployment and market innovation. Recent state policy, including the CPUC's November Decision on Transportation Electrification Policy and Investment[2] and the CEC's December 2022-2023 Investment Plan Update[3], has made clear that the private market will play a vital role in meeting the state's transportation electrification goals. For the private market to deliver on the innovation and scale required to electrify transportation in California and achieve 100% ZEV in the next decades, certainty and stability from government policy and

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[1] UCS, 2022. "California Clean Trucks Program," https://www.ucsusa.org/sites/default/files/2022-08/ca-clean-trucks-report.pdf

[2] CPUC, 2022. "Decision on Transportation Electrification Policy and Investment," https://www.cpuc.ca.gov/news-and-updates/all-news/cpuc-adopts-transportation-electrification-program-to-help-accelerate-electric-vehicle-adoption

[3] CEC, 2022. "2022-2023 Investment Plan Update," https://www.energy.ca.gov/news/2022-12/cec-approves-29-billion-investment-zero-emission-transportation-infrastructure#:~:text=The%202022%2D2023%20Investment%20Plan,targeted%20to%20benefit%20priority%20populations.

incentives is essential. Volatility in the LCFS credit market has been challenging for investment in EV charging in the last year as credit prices have fallen below $65. To attract capital at this critical time, CARB should ensure that the LCFS market provides a stable market signal for investment in the long term infrastructure that is needed.

CARB should immediately, upon adoption of this amendment, "step-down" the CI requirement to restore a healthy LCFS credit market. CARB should also adopt a permanent "acceleration mechanism" to be able to calibrate the program to take advantage of additional emissions reduction opportunities and ensure market certainty in cases where the market is oversupplied. California's drive toward 100% ZEV and carbon neutrality by 2045 requires that we not squander opportunities to accelerate emissions reductions when they are available and cost effective, because of regulatory lag. Instead of waiting for a formal rulemaking to update the CI stringency of the program in the future, CARB has an opportunity to establish a mechanism in this amendment process that can permanently calibrate to achieve dual objectives of capturing available emissions reductions and maintaining price certainty and stability in the market to drive deployment of zero emissions infrastructure and vehicles.

As a trigger for the ratchet, we propose CARB consider a price floor that ensures the LCFS credit value is high enough to achieve state ZEV deployment goals - the total cost of ownership ("TCO") analysis in Appendix G of the proposed ACF regulation projects LCFS credit value of $200 until 2030. Importantly, the LCFS credit value should never fall below the societal value of achieving incremental emissions reductions. We note that the EPA recently released a draft report[4] with revised calculations for the social cost of carbon, that indicates a low-end value of $120 in 2020 and $140 in 2030. We encourage CARB to monitor that effort at EPA and consider a floor price trigger for the LCFS that guarantees a credit value commensurate with policy objectives and societal benefit.

3. EV charging infrastructure is a necessary precursor to ZEV adoption by fleets.
At least 10% of deficits should be reserved for ZEV infrastructure credits, and at least half of those should be reserved for Medium- and Heavy-Duty ZEV infrastructure, including EV fast charging infrastructure (FCI).

The MHD market segment is less mature than the Light-Duty segment in an already nascent EV market in California. To meet the ambitious targets outlined in the proposed 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 approximately 50 MHD chargers per day every day through 2030.[5] 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. Fleets must have assurances that adequate charging infrastructure will be available before they will be willing to make purchasing commitments for EVs. Furthermore, that charging infrastructure must be capable of meeting the operational requirements for those fleets immediately once deployed. There can be no lag time between vehicle

[4] 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

[5] 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

deployment and charging that meets the duty cycle requirements of fleets. To enable EV fleet adoption, a FCI crediting mechanism is essential.

Furthermore, FCI credits should be made available to charging infrastructure that includes guaranteed access to fleet operators. Based on extensive engagement with fleet customers, we do not believe that public charging alone will ever adequately address fleet charging needs. High priority commercial fleets that will be subject to the ACF regulation, operate within tight parameters for on-road availability and performance and must have access to reliable charging when they need it. Optimal charging infrastructure to support California's ZEV goals that can serve the needs of fleet customers will require some degree of guaranteed or restricted access. EV Realty believes fleet charging infrastructure that can achieve high utilization through coordinated access by multiple users will best meet fleet customer needs and state goals. However, this type of optimized, high utilization charging may take time to achieve, and therefore FCI crediting is essential to deploying charging quickly and enabling the market to grow and scale. As individual charging facilities reach higher utilization and no longer require FCI credits, those credits may be "recycled" to subsequent newer charging infrastructure to enable further market growth. Until the state reaches full ZEV deployment, some share of FCI crediting will likely be necessary to ensure that charging infrastructure is not the limiting factor to vehicle deployment. We look forward to working with CARB staff on the appropriate design of FCI crediting for MHD that aligns with the state's ZEV ambitions for priority fleets and meets overall LCFS program goals.

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. EV Realty looks forward to the next steps in this process of amending the Regulation.

Sincerely,
Suncheth Bhat
Chief Business Officer