



COMMENT OF ENVIRONMENTAL DEFENSE FUND IN RE: CARB'S DECEMBER 2025 DRIVE FORWARD HEAVY-DUTY VEHICLE WORKSHOP

Submitted via CARB's Website, March 2026

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Environmental Defense Fund (EDF) respectfully submits the following comments on the California Air Resources Board (CARB) staff's initial concepts for the Drive Forward Heavy-Duty Vehicle Program, as presented in the December 3, 2025, public workshop.

EDF works to create transformational solutions to the most serious environmental problems by linking science, economics, law, and innovative private-sector partnerships. With over 3 million members, including half a million in California, EDF's scientists, economists, attorneys, and policy advocates are working to turn our solutions into action.

EDF strongly supports CARB's continued leadership in advancing clean, affordable vehicles and securing the criteria, toxic, and GHG pollutant reductions necessary to protect public health and welfare in California and beyond. Although heavy-duty vehicles only represent 7% of California's on-road vehicle fleet, they are responsible for nearly half of on-road nitrogen oxide (NOx) emissions and 20% of greenhouse gas (GHG) emissions. This rulemaking, together with other mobile and stationary source efforts, is critical to achieving the necessary criteria pollutant reductions to meet National Ambient Air Quality Standards and protect California's 39 million residents from harmful smog and soot. Simultaneously, this program is essential for achieving GHGs reductions to meet California's statutory 2030 and 2045 climate targets.

As CARB noted at the workshop, recent Federal actions have created an additional 175 tons per day gap in NOx emissions in California, which will have critical

implications for breathers in the State. Since then, the EPA's rollback of its entire vehicle GHG program, as well as its continued plans to weaken heavy-duty criteria pollutant standards, only highlight the need for California's leadership, in partnership with other states in the Affordable Clean Cars Coalition. CARB's next-generation emissions program is urgently needed to protect California's residents from harmful smog and soot, and mitigate the worst effects of climate change, including the wildfires, drought, and heat waves already harming Californian communities.

EDF supports CARB's commitment to creating a durable and pragmatic program that ensures cost-effective emissions reductions while protecting public health, particularly in overburdened communities. Specifically, EDF supports CARB's interest in establishing protective, next-generation, performance-based engine and vehicle standards structurally consistent with the U.S. Environmental Protection Agency's (EPA) Clean Trucks Plan, including the Heavy-Duty 2027 Low NO_x and Phase 3 GHG rules. Performance-based standards that can be achieved through multiple technological pathways will cut pollution, provide flexibility, and support customer choice.

To the extent that the federal NO_x protections remain intact, EDF supports CARB's interest in aligning its engine standards program with EPA's. A harmonized national program would deliver durable emissions reductions, regulatory clarity, and market stability. However, CARB must be prepared to adopt more protective criteria standards if EPA substantially weakens the federal program.

With EPA's rollback of its vehicle GHG program, California's leadership is indispensable. EDF supports CARB's development of next-generation performance-based GHG standards that allow for averaging of all technologies, including zero-emission vehicles (ZEVs). CARB should also consider standards that are more protective than the Federal HD Phase 3 standards, reflecting California's stronger existing ZEV market, the potential for additional deployments of ZEV and non-ZEV clean vehicles, and the urgent need for GHG reductions.

EDF also welcomes CARB's consideration of a broad range of other strategies for engines and vehicles, including new test cycles to ensure real-world in-use emissions reductions, new trailer standards, control of non-exhaust PM emissions, and zero-emission powertrain certification.

EDF supports CARB's interest in establishing demand-side requirements aligned with the manufacturer standards to ensure corresponding demand for clean

vehicle technologies and to reward those fleets that act sustainably. In evaluating the many demand-side approaches presented, EDF urges consideration of the following three principles. First, CARB should consider at least two different demand-side programs, one that may require a preemption waiver from the US EPA, and another that does not. Second, CARB should consider prioritizing certain fleets—for example drayage trucks operating near ports—to target the greatest degree of emissions reductions for overburdened communities. Third, notwithstanding the above, CARB’s overall approach should ensure turnover throughout the entire heavy-duty fleet to drive down the total NOx and GHG emissions inventory.

EDF further supports CARB’s interest in securing near-term pollution reductions through early action pathways for both regulated manufacturers and fleets that incentivize ZEVs as well as ultra-low NOx engines. We also urge CARB to consider aligning Drive Forward, including the early-action component, with other state initiatives—including procurement preferences, financial incentive eligibility conditions, and non-financial voluntary programs such as Clean Fleet Connect—to provide compelling and holistic incentives for manufacturers and fleets to transition to clean vehicles as rapidly as possible. CARB should also closely coordinate its vehicles programs with the charging infrastructure programs administered by the California Energy Commission (CEC) and the California Public Utilities Commission (CPUC), as well as with the clean vehicle programs of other states.

Consistent with EDF’s earlier budget letter, EDF continues to support at least \$1.5 billion in additional funding for CARB’s incentive programs, including significant additional funding for heavy-duty trucks through the Clean Truck and Bus Voucher Incentive Project (HVIP). Considering the current federal landscape, incentives remain one of California’s most powerful levers for driving ZEV adoption. While heavy-duty ZEV sales have accelerated in California in recent years, many market segments remain at a nascent stage. Targeted incentives right now play an indispensable role in ensuring these early markets continue to develop and scale. To ensure market certainty during this period of federal volatility, a stable funding stream through at least FY 2026-29 is warranted. While EDF recognizes the additional funding available through Clean Fuel Rewards thanks to recent changes to the Low Carbon Fuel Standards, such funding is yet to materialize, likely insufficient, and not a replacement for funding existing incentive programs. EDF also supports CARB’s consideration of other financial strategies, including new revenue streams.

EDF thanks CARB for its leadership and for initiating this important public process. We appreciate the transparent and robust public process that CARB has outlined, including additional workshops and opportunities for bilateral engagement. We strongly support your vital efforts and look forward to continuing to engage with CARB and stakeholders to advance durable, effective, and protective standards. If you have questions or would like to discuss these comments, please contact Ryland Li at ryli@edf.org.

Respectfully,

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