July 17, 2026
Clerk's Office, California Air Resources Board
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Via electronic submittal

RE: Environmental and Environmental Justice Group Comments on CARB's June 2026 Workshop for the Drive Forward Light-Duty Vehicle Program

To the California Air Resources Board, Mobile Source Control Division:

Thank you for the opportunity to submit comments on the California Air Resources Board's (CARB) June 2026 workshop on the Drive Forward Light-Duty Vehicle (LDV) Program. We strongly support CARB's efforts to develop new regulations for passenger vehicles and urge CARB to protect Californians from dangerous air pollution by phasing out transportation-related air pollution as swiftly as possible.

In the face of unprecedented and unlawful federal interference, California must not back down from its commitments to protect the health and welfare of Californians by cleaning up unhealthy pollution from vehicles. The Drive Forward LDV Program's proposed NMOG + NOx and greenhouse gas (GHG) emission standards must be ambitious enough to deliver the economic, health, and equity benefits that Californians have been promised—especially for the communities that live and work near air pollution magnets like ports, warehouses, and other freight hubs. In this era of uncertainty, there is no time to waste. California is tasked with protecting each and every resident's right to a safe and livable community.

CARB must adopt a Drive Forward LDV Program that will deliver emissions reductions from passenger vehicles that are consistent with state and federal clean air requirements. To do so, CARB must strengthen the proposed fleet-average NMOG + NOx and GHG standards to rapidly phase out pollution from passenger vehicles and keep California's ZEV transition on

track. The Drive Forward LDV Program must be built with the goal of making it safe for every Californian to breathe clean air; this can only be achieved if communities that live and work on the frontlines of transportation-related air pollution are meaningfully engaged and put in positions to lead on the development of program rules. We also urge CARB to provide an analysis of the real-world emissions reductions from proposed standards before or at the next workshop, so that the public can meaningfully assess whether CARB's proposal will achieve state and federal clean air and climate obligations.

I. CARB's Drive Forward LDV Program must keep California's zero-emission transition on track and deliver the health, equity, and economic benefits that Californians have been promised.

California's prior suite of vehicle standards was designed to phase out dangerous tailpipe pollution and deliver major public health and equity benefits, especially for communities most burdened by transportation pollution. CARB's Drive Forward LDV Program must ensure that California remains on track to deliver benefits that match or exceed those that would have been achieved absent the recent, unlawful attacks on California's vehicle standards by the federal administration.

Without strong new regulations that maintain California's zero-emission transition trajectory, more Californians will suffer from asthma, cardiopulmonary disease, and premature death. These impacts will be concentrated in the communities that live and work near hotspots of transportation-related air pollution, such as ports, warehouses, and other freight hubs. California's prior suite of light-duty vehicle standards were projected to prevent 1,290 deaths, 460 hospital admissions, and 650 emergency room visits for asthma—benefits valued at almost $13 billion in avoided health costs.[1]

These public health benefits are also affordability benefits for Californians. Asthma and other pollution-related illnesses impose real costs on California families, including medical bills, prescriptions, hospitalizations, as well as missed work and school. Researchers have found that the average annual per person incremental medical cost of asthma in the U.S. is approximately $3,266, rising to $3,581 for people living below the poverty line.[2] These costs add up significantly over time, with the total lifetime cost for a new asthma case in the U.S. estimated at $36,500.[3] For low-income families already facing high housing, transportation, and healthcare costs, these burdens can be especially devastating.

California's transition to nonpolluting electric vehicles is already underway and will deliver billions in savings for Californians. California is leading the nation in electric car adoption and is building a

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[1] California Air Resources Board, California moves to accelerate to 100% new zero-emission vehicle sales by 2035 (Aug. 25, 2022), https://ww2.arb.ca.gov/news/california-moves-accelerate-100-new-zero-emission-vehicle-sales2035.
[2] Tursynbek Nurmagambetov, et al., The Economic Burden of Asthma in the United States, 2008–2013, Annals of the Am. Thoracic Soc'y, Vol. 15, Iss. 3, at 353 (Mar. 2018), https://www.atsjournals.org/doi/abs/10.1513/AnnalsATS.201703-259OC.
[3] Anna Belova et al., Estimating Lifetime Cost of Illness, An Application to Asthma, Annals of the Am. Thoracic Soc'y, Vol. 17, Iss. 12, at 1566 (Dec. 2020), https://www.atsjournals.org/doi/full/10.1513/AnnalsATS.201910- 729OC.

large and durable ZEV market. In 2024, one in four new cars sold in California was electric.[4] Zero-emission cars accounted for 29.1% of all new car sales from July through September of 2025, the highest quarterly share for ZEVs ever reported in the state.[5] By the end of 2025, California had surpassed 2.5 million cumulative new ZEV sales, which is a growth of more than 300% since the end of 2019.[6] California's FY 2026-27 Budget includes over $135 million for a new light-duty ZEV incentive program for first-time buyers, which will be matched with funds from vehicle manufacturers. This new state program will help backfill the loss of federal incentives, bringing down the upfront cost of ZEVs and accelerating ZEV adoption.

Electric cars also save drivers money, with average fuel and maintenance savings of more than $7,500 compared to combustion engine vehicles.[7] As ZEV sales have increased, California's ZEV economy has grown, with more electric cars being produced in California than in any other state. A study by CALSTART found that the ZEV industry has already created nearly 70,000 direct jobs in California, across more than 360 companies and 419 sites statewide.[8] These jobs span vehicle manufacturers, suppliers, infrastructure providers, and research and development. Strong vehicle standards are essential for securing the economic benefits of the ZEV transition and ensuring that California's ZEV industry continues to grow.

II. CARB's proposed fleet-average standards must be strong enough to achieve California's federal Clean Air Act requirements and legally-binding state climate targets.

California has several regions that suffer from the worst air quality in the country despite the significant progress the state has made in reducing emissions from transportation sources over the last several decades. As CARB staff emphasized at the June workshop, air pollution continues to threaten public health across the state, especially for disadvantaged communities and low-income households that are disproportionately impacted by unhealthy air pollution and dangerous climate impacts. **CARB's Drive Forward regulations must deliver the pollution reductions needed for the South Coast Air Basin and the San Joaquin Valley to attain the 2015 8-hour ozone National Ambient Air Quality Standard (NAAQS).** Both regions are currently classified as "Extreme" nonattainment areas, the most severe classification under the Clean Air Act.

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[4] California Energy Commission, New ZEV Sales in California (accessed Nov. 19, 2025), https://www.energy.ca.gov/data-reports/energy-almanac/zero-emission-vehicle-and-infrastructure-statistics-collection/new-zev.
[5] Office of Governor Gavin Newsom, Record-breaking quarter: California reaches historic high in ZEV sales (Oct. 13, 2025), https://www.gov.ca.gov/2025/10/13/record-breaking-quarter-california-reaches-historic-high-in-zev-sales/.
[6] California Energy Commission, California surpasses 2.5 million ZEV sales (Jan. 20, 2026), https://www.energy.ca.gov/news/2026-01/california-surpasses-25-million-zev-sales.
[7] Office of Governor Gavin Newsom, "Clean cars are here to stay": Biden-Harris Administration reaffirms California's leadership in cutting pollution and cleaning the air (Dec. 18, 2024), https://www.gov.ca.gov/2024/12/18/clean-cars-are-here-to-stay-biden-harris-administration-reaffirms-californias-leadership-in-cutting-pollution-and-cleaning-the-air/.
[8] CALSTART, CALSTART's California ZEV jobs study, https://calstart.org/wp-content/uploads/2021/02/CA-ZEV-Jobs-Study-Final-0203.pdf.

Failure to attain these standards by the 2037 deadline would trigger severe penalties under the Clean Air Act, including the potential loss of federal highway funding. In the San Joaquin Valley, air quality modeling shows that anthropogenic NOx emissions must fall to approximately 62 tons per day (tpd) in 2037 to achieve the ozone standard—a 29% reduction from the projected 2037 baseline and approximately 72% below 2018 levels.[9] In the South Coast, the 2022 Air Quality Management Plan found that NOx emissions must be reduced by 124 tpd from the projected 2037 baseline—which is a 67% reduction from 2037 baseline levels and 83% reduction from 2022 levels—to meet the standards.[10] These numbers likely underestimate the extent of the necessary reductions because they assumed emissions reductions that the federal government has since eliminated.

Mobile sources are projected to account for about 80% of regional NOx emissions in 2037.[11] The magnitude of the required NOx reductions underscores the need for mobile source standards that phase out transportation-related pollution as swiftly as possible. **The landmark 2022 South Coast AQMD's Air Quality Management Plan stated that "there is no viable pathway to achieve the needed reductions without widespread adoption of zero emissions (ZE) technologies across all mobile sectors and stationary sources, large and small."[12]**

Achievement of California's climate targets similarly depends on a rapid transition to zero-emission technologies in the transportation sector. CARB's Drive Forward LDV Program must deliver standards consistent with Executive Order N-79-20's mandate of 100% zero-emission passenger car and truck sales by 2035, as well as California's statutory climate targets that require: 1) a reduction in statewide GHG emissions of at least 85% below 1990 levels by 2045, and 2) economy-wide carbon neutrality by 2045.[13] Transportation remains California's largest source of GHG emissions, accounting for 37.1% of statewide emissions in 2023.[14] Passenger vehicles are the largest single source of climate pollution, accounting for 28.4% of statewide GHG emissions.[15] CARB's 2022 Scoping Plan identifies 100% ZEV sales of new light-duty vehicles by 2035 as a core strategy for

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[9] San Joaquin Valley Air Pollution Control District, 2022 Plan for the 2015 8-Hour Ozone Standard, Ch. 5, "Attainment Demonstration" at p. 5-4 (Dec, 15, 2022), https://ww2.valleyair.org/media/1h2n0vfq/08-chapter-5-attainment-demonstration.pdf.

[10] S. Coast Air Quality Mgmt. Dist., Final 2022 Air Quality Management Plan, 4-1, https://www.aqmd.gov/docs/default-source/clean-air-plans/air-quality-management-plans/2022-air-quality-management-plan/final-2022-aqmp/final-2022-aqmp.pdf.

[11] Ibid. at 4-7.

[12] Ibid. at ES-5.

[13] Executive Department, State of California, Executive Order N-79-20 (Sept. 23, 2020), https://www.gov.ca.gov/wp-content/uploads/2020/09/9.23.20-EO-N-79-20-Climate.pdf; Cal. Health & Safety Code § 38562.2(c)(2) (requiring the state to ensure that, by 2045, statewide anthropogenic greenhouse gas emissions are reduced to at least 85% below the 1990 emissions level established under Health & Safety Code § 38550); Cal. Health & Safety Code § 38562.2(c)(1) (declaring the state policy to "achieve net zero greenhouse gas emissions as soon as possible, but no later than 2045," and to "achieve and maintain net negative greenhouse gas emissions thereafter").

[14] California Air Resources Board, California Greenhouse Gas Emissions from 2000 to 2023: Trends of Emissions and Other Indicators at p. 9 (Nov. 4, 2025), https://ww2.arb.ca.gov/sites/default/files/2025-11/nc-2000_2023_ghg_inventory_trends.pdf.

[15] Ibid. at Figure 5, p. 12.

achieving the state's climate targets.[16] Given the scale of passenger vehicle emissions and the widespread availability of ZEV technology to eliminate tailpipe emissions from new passenger vehicles, CARB must design the Drive Forward LDV Program to phase out emissions from passenger vehicles as rapidly as possible.

III. CARB must strengthen the proposed NMOG + NOx fleet-average standards to deliver the pollution reductions necessary for federal ozone NAAQS attainment.

We urge CARB to adopt more protective NMOG + NOx standards for LDVs. Strong standards that reflect a swift phase-out of vehicle pollution are necessary for the South Coast and San Joaquin Valley to achieve compliance with the emission-reduction commitments in California's State Implementation Plans (SIPs) and to attain national and state ambient air quality standards.

To keep California's ZEV transition on track, CARB must strengthen the proposed light-duty NMOG + NOx standard to less than 4 mg/mi by MY 2035. This benchmark reflects vehicle sales of 100% ZEVs and Plug-in Hybrid Electric Vehicles (PHEVs) in MY 2035, with no more than 20% of vehicle sales being qualifying PHEVs. Both the South Coast and San Joaquin Valley ozone SIP materials include 100% ZEV sales by 2035 as a critical strategy for reducing emissions from LDVs, and the Drive Forward LDV program must deliver pollution reductions that match that level of ambition.

At the June workshop, CARB staff indicated that the expected NMOG + NOx emissions performance of combustion-engine LDVs in MY 2038 would be approximately 20 mg/mi. Applying that value to a fleet sales mix of 80% ZEVs and 20% PHEVs at 20 mg/mi yields a ZEV-inclusive fleet-average benchmark of 4 mg/mi NMOG + NOx. A 4 mg/mi NMOG + NOx standard would deliver pollution benefits that more closely match a level of ZEV deployment consistent with our state targets and federal air quality obligations—however, to accurately reflect the true emissions performance of PHEVs given estimates of electric-mile share and combustion-mile share, this standard should be even lower. We recommend that CARB use a maximum 4 mg/mi standard as a starting point, and further reduce the standard to reflect an accurate representation of the real-world pollution from PHEVs. We also urge CARB to provide a clear estimate of how the pollution reductions from this standard compare to the pollution reductions from passenger vehicles necessary for 2037 attainment of ozone NAAQS in the South Coast and San Joaquin Valley.

IV. CARB's proposed GHG standards must be strengthened in order for California to achieve its legally-binding 2045 climate targets.

CARB's proposed fleet-average standards for GHGs must similarly be strengthened in order to meet California's climate targets. To remain on track to achieve the required statewide 85% GHG

[16] California Air Resources Board, 2022 Scoping Plan for Achieving Carbon Neutrality (December 2022), https://ww2.arb.ca.gov/sites/default/files/2023-04/2022-sp.pdf.

emissions reduction from 1990 levels by 2045, passenger vehicle emissions must decline rapidly and approach zero by 2045.[17]

Analysis by the Union of Concerned Scientists found that a fleet-average GHG standard of 16.7 – 17.6 g/mi for passenger cars and 17.7 – 23.3 g/mi for light trucks in MY 2035 would be consistent with a fleet sales mix of 80% ZEVs and 20% PHEVs.[18] By contrast, CARB has proposed a passenger-vehicle GHG fleet-averages standard that would reach up to 80 g/mi in MY 2038. The proposed standard is too weak and too late to drive the level of ZEV deployment needed to maintain progress toward California's climate targets. **We therefore urge CARB to strengthen the proposed GHG fleet-average standard to at maximum 17 g/mi by MY 2035.** We also ask that CARB provide a clear estimate of how the pollution reductions from proposed standards compare to the pollution reductions needed from passenger vehicles to achieve California's 2045 climate targets.[19]

V. The fleet-average standards for NMOG + NOx and GHG emissions proposed at the June workshop do not reflect California's leadership in ZEV deployment.

We support CARB's consideration of fleet-average standards for NMOG + NOx and GHG emissions that include ZEVs. ZEV-inclusive fleet-average standards can be a useful framework if the standards are set at a level that reflects California's rapid transition to ZEVs and will deliver real-world pollution reductions consistent with state climate targets and federal Clean Air Act obligations. However, the proposed NMOG + NOx and GHG standards presented at the June workshop do not accurately reflect the ZEV transition that is already underway in California and will not deliver the pollution reductions necessary to protect Californians' health and climate.

In the June workshop, CARB proposed fleet-average NMOG + NOx standards that reach 12 mg/mi for LDVs in MY 2038, and 100 mg/mi for MDVs in MY 2033. The corresponding federal standards would reach 15 mg/mi in MY 2032 for LDVs, and 75 mg/mi in MY 2033 for MDVs.[20] In adopting those standards, the U.S. Environmental Protection Agency (EPA) developed a detailed technical and administrative record supporting its conclusion that the fleet-average NMOG + NOx standards were technologically feasible, achievable with available emissions-control technologies, and would

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[17] California Air Resources Board, 2022 Scoping Plan for Achieving Carbon Neutrality (December 2022), https://ww2.arb.ca.gov/sites/default/files/2023-04/2022-sp.pdf.

[18] Union of Concerned Scientists, RE: Comments regarding amendments to Advanced Clean Cars II, Table 4: Fleetwide greenhouse gas curves for passenger cars (PC) and light trucks (LT) (July 2024), available in Comment Log for Advanced Clean Cars II Amendments – June Workshop submitted by David Reichmuth at https://ww2.arb.ca.gov/approved-comments?entity_id=36516&page=0.

[19] Cal. Health & Safety Code § 38562.2(c)(2) (requiring the state to ensure that, by 2045, statewide anthropogenic greenhouse gas emissions are reduced to at least 85% below the 1990 emissions level established under Health & Safety Code § 38550).

[20] U.S. Environmental Protection Agency, Multi-pollutant emissions standards for Model Years 2027 and Later Light-Duty and Medium-Duty Vehicles: Final Rule (March 2024), https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P1019VP5.pdf.

deliver substantial reductions in harmful air pollution.[21] However, CARB's proposed LDV standard is only slightly better than the federal fleet-average standard and doesn't fully phase in until six model years later. CARB's proposed MDV fleet-average standard is 25 mg/mi higher than the federal fleet-average standard even when fully phased in. If CARB's proposed MDV fleet-average standard includes ZEVs in its average, as indicated in the presentation at the June workshop, it is substantially less stringent than the federal proposal despite California's leadership in ZEV deployment.[22]

CARB's proposed GHG standard raises the same concern. CARB has proposed a passenger-vehicle GHG fleet-average standard that would reach 80 g/mi in MY 2038, while the federal GHG standard would have reached approximately 85 g/mi in MY 2032.[23] CARB is proposing a California GHG standard that is only marginally stronger than the federal standard but would not fully phase in until six model years later, despite a detailed administrative record from EPA concluding that the MY 2032 fleet-average GHG standards were feasible, achievable through a range of available clean-vehicle technologies, and would deliver substantial climate, health, and economic benefits.[24]

This approach falls short of what Californians have been promised. California leads the nation in ZEV deployment, and CARB's standards must reflect and continue that leadership. California must adopt strong standards that reflect ambitious ZEV sales—otherwise, Californians will be harmed by continued pollution under a standard that could allow manufacturers to backslide and certify the remaining non-ZEV fleet to dirtier emission levels.

VI. The Drive Forward LDV Program's outreach and engagement must center those who are most impacted by vehicle pollution.

Communities who live and work on the frontlines of transportation-related pollution bear disproportionate health burdens and have direct expertise in the solutions needed to protect their health and safety. CARB must engage meaningfully with grassroots and frontline community-led organizations and must put these community organizations in position to lead in stakeholder and

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[21] See U.S. Environmental Protection Agency, Multi-Pollutant Emissions Standards for Model Years 2027 and Later Light-Duty and Medium-Duty Vehicles, 89 Fed. Reg. 27,842, 27,845, 28,086–91 (Apr. 18, 2024), https://www.epa.gov/regulations-emissions-vehicles-and-engines/final-rule-multi-pollutant-emissions-standards-model; U.S. Environmental Protection Agency, Regulatory Impact Analysis: Multi-Pollutant Emissions Standards for Model Years 2027 and Later Light-Duty and Medium-Duty Vehicles, EPA-420-R-24-004 (Mar. 2024), https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P1019VPM.pdf; U.S. Environmental Protection Agency, Response to Comments: Multi-Pollutant Emissions Standards for Model Years 2027 and Later Light-Duty and Medium-Duty Vehicles, EPA-420-R-24-005 (Mar. 2024), https://nepis.epa.gov/Exe/ZyPdf.cgi?Dockey=P1019WE6.pdf. ("EPA Tier 4 Rule Regulatory Impact Analysis and Response to Comments").

[22] California Air Resources Board, Drive Forward Light-Duty Vehicle Program: Presentation Slides for Second Public Workshop (June 22, 2026), (slide 19 notes that the preliminary proposal for MDV NMOG + NOx Fleet Average Standard "includes MD ZEVs in the average"), https://ww2.arb.ca.gov/sites/default/files/2026-06/2026_06_22_Workshop_Presentation_ADA_English_Approved_3.pdf.

[23] U.S. Environmental Protection Agency, Multi-pollutant emissions standards for Model Years 2027 and Later Light-Duty and Medium-Duty Vehicles: Final Rule (March 2024), https://nepis.epa.gov/Exe/ZyPDF.cgi?Dockey=P1019VP5.pdf.

[24] EPA Tier 4 Rule Regulatory Impact Analysis and Response to Comments.

public engagement efforts to ensure the Drive Forward LDV Program meets the needs of all Californians.

We appreciate CARB staff's stated commitment to early engagement and partnership with community members and community-based organizations across the state. That commitment must be reflected in a process that allows frontline communities and workers to participate fully and meaningfully. It is essential that their perspectives and lived experiences help guide this work. CARB staff should provide regular opportunities for engagement with key staff and decisionmakers, schedule frequent, regular meetings at times and locations that are available to community members, and ensure that community input is incorporated before major policy decisions are made.

We also urge staff to ensure full access to all information, research, and assumptions used throughout the rulemaking process. Meaningful engagement requires that community members have the information, time, and access needed to evaluate the proposal and advocate for standards that meet the needs of the Californians most affected by vehicle pollution.

VII. CARB staff must analyze whether the proposed standards will deliver the emissions reductions needed to meet state and federal clean air and climate requirements, and make that analysis publicly available before the next workshop.

CARB staff should publish a clear, accessible analysis estimating how the proposed fleet-average standards would translate into real-world reductions in criteria air pollution and GHGs over time. Without an estimate of the real-world pollution reductions expected from the proposed standards, it is difficult for the public to meaningfully assess whether the standards are consistent with California's clean air and climate requirements.

At minimum, CARB should estimate the expected reductions in NOx and greenhouse gas emissions benefits from the proposed fleet-average standards in key years (2035, 2037, 2040, and 2045) and compare them against the pollution reductions needed from passenger vehicles to meet California's legally binding climate targets, State Implementation Plan commitments, and federal Clean Air Act attainment obligations. For ozone nonattainment regions such as the South Coast and San Joaquin Valley, CARB should specifically show whether the proposed standards will deliver the passenger-vehicle NOx reductions needed to meet the 2037 ozone attainment deadline. CARB should also disclose the key assumptions behind this analysis, including projected vehicle sales, fleet mix over time, treatment of plug-in hybrids, and estimated emissions performance of remaining combustion engine vehicles.

CARB should release this information before or at the next Drive Forward LDV Program workshop in a format that allows the public to compare the estimated performance of the proposed standards against California's climate targets and Clean Air Act obligations.

VIII. Conclusion.

California's clean vehicle standards have long been central to the state's efforts to protect public health, meet federal clean air requirements, and build a safer climate. The Drive Forward LDV Program must continue that leadership. CARB should adopt standards that are strong enough to deliver the health, economic, and equity benefits that California's communities have been promised. To deliver that result, CARB must strengthen its proposed fleet-average standards so that the standards drive rapid deployment of ZEVs. CARB must also clearly show how proposed fleet-average standards will deliver the real-world emission reductions from the in-use passenger vehicle fleet necessary to achieve our 2045 state climate target and bring the South Coast and San Joaquin Valley into attainment for ozone NAAQS.

As CARB continues to refine concepts for the Drive Forward Program, we also support CARB's consideration of early action incentives to reduce emissions and encourage manufacturers to accelerate production and sales of zero-emission vehicles before the Drive Forward standards take effect. Early action incentives can be beneficial if they accelerate real emission reductions beyond what manufacturers would otherwise achieve and are paired with standards that remain sufficiently ambitious. We also urge CARB to design the Drive Forward Program with Section 177 state adoption in mind and capable of preserving California's clean air and climate leadership in other states that choose to follow California's standards.

We look forward to continued work with CARB to phase out pollution from vehicles and achieve our climate and clean air obligations. Thank you for your consideration.

Sincerely,

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