
# ENVIRONMENTAL DEFENSE FUND
# STATEMENT ON

# ADVANCED CLEAN CARS REGULATIONS
# FOR 2026 AND LATER MODEL YEARS

***Protecting Human Health and the Environment***

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**California ARB Remote Meeting**
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On behalf of Environmental Defense Fund and our more than 2.5 million members and about 600,000 here in California, I thank you for the opportunity to speak today on California's Advanced Clean Cars regulation for model years 2026 and later. For purposes of background, I worked for the Environmental Protection Agency (EPA) 39 years and retired in 2012. While at EPA, I was the senior executive leading the development of Federal motor vehicle and fuel emission control programs including EPA's light-duty vehicle greenhouse gas (GHG) programs. I have been a consultant for EDF since 2014 focused on climate and air pollution control policies. Today, I will give our views on the development of Advanced Clean Cars II regulations.

**Zero Emitting Technologies Need to be Rapidly Deployed**

To ensure carbon neutrality by 2050 or before, essentially all new vehicles sold in model year 2035 will need to be zero-emitting vehicles (ZEVs) and policies must be adopted to accelerate the retirement of older, internal-combustion engine vehicles.

Bold and ambitious MY2035 ZEV sales targets are not only needed, but feasible based on battery electric vehicle cost projections and auto manufacturers' investments in their development and deployment. An April 2019 ICCT study projects that BEVs will reach cost parity with ICE vehicles in the 2024-2028 timeframe depending on their range.[1] Other analysts are projecting that cost parity could occur even sooner.[2] In addition, a M. J. Bradley and Associates 2019 report found that between 2019 and 2022, the number of battery electric and plug-in models will increase from 51 to 76 and most auto manufacturers are embracing electrification as evidenced by the number and variety of current models offered as well as future commitments.[3]

It is important to pair ambitious standards for new vehicles that rely on (and accelerate) this transition to electrification with policies that address emissions from the existing vehicle fleet. In fact, recent national-scale modeling performed by EDF shows that even with 100% ZEV sales by 2035 along with 80% near-term CO2 reductions from the power sector, additional complementary policies to address existing vehicles are needed to reach carbon neutrality. For example, absent these policies to address the existing fleet, 2045 CO2 emissions will be reduced by 82% compared to a 2020 calendar baseline or an 18% shortfall.

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[1] Nic Lutsey and Michael Nicholas, Update on Electric Vehicle Costs in the United States Through 2030, The International Council on Clean Transportation, April 2, 2019. *See* https://www.theicct.org/publications/update-US-2030-electric-vehicle-cost

[2] Dana Lowell and Alissa Huntington (May 2019). Electrical Vehicle Market Status: Manufacturer Commitments to Future Electric Mobility in the U.S. and Worldwide, *MJ Bradley and Associates. See* www.mjbradley.com

[3] Dana Lowell and Alissa Huntington (May 2019). Electrical Vehicle Market Status: Manufacturer Commitments to Future Electric Mobility in the U.S. and Worldwide, *MJ Bradley and Associates. See* www.mjbradley.com

**Zero Emitting Vehicles Will Reduce Air Pollution, Save Lives and Secure Other Health Benefits**

Despite substantial progress, California remains home to unhealthy levels of air pollution. The South Coast and San Joaquin Valley are the only two areas in the nation designated as "extreme" nonattainment for the federal health-based ozone standard[4] and the San Joaquin Valley has the highest fine particulate levels in the nation.[5] So, in addition to the deep carbon pollution reductions that ZEVs will enable, wide spread deployment of ZEVs will inherently provide substantial tailpipe and upstream criteria emission reductions which in turn will saves lives and secure important health benefits that are critically needed in California.

In 2018, highway vehicles were responsible for a third of the nation's total NOx emissions, emitting more than 3 million tons of NOx emissions.[6] In California, the contribution is even higher – 45% of the state's NOx emissions come from highway vehicles.[7] Our nation's highway vehicles also emitted, in 2018, more than 1.6 million tons of ozone-forming volatile organic compounds and were one of the major sources of fine particulate.[8] A newly published EPA study using source apportionment photochemical air quality modeling estimates that in 2025 between 6,700 and 18,000 PM and ozone-related deaths will occur nationwide.[9] Passenger cars and trucks are responsible for more than half of the ozone-forming NOx emissions and nearly half of the fine particulates from the highway sector.[10]

Transportation pollution does not impact communities equally. It is well documented that those living and working near heavily trafficked roadways suffer the greatest harms, and many are communities of color and disadvantaged populations. Highway vehicles contribute significantly to elevated concentrations of many pollutants near major roadways, and the risks associated with roadside exposure to these pollutants are a serious public health concern.[11] ZEVs will deliver cleaner air to the hardest hit communities, saving lives and saving the state billions of dollars in health care costs.

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[4] ARB, Mobile Source Strategy (2016), page 21. https://ww3.arb.ca.gov/planning/sip/2016sip/2016mobsrc.pdf
[5] ARB, Mobile Source Strategy (2016), page 21. https://ww3.arb.ca.gov/planning/sip/2016sip/2016mobsrc.pdf
[6] EPA, National Emissions Inventory, National Annual Emissions Trend, Criteria Pollutants National Tier 1 for 1970-2018. https://www.epa.gov/sites/production/files/2018-04/national_tier1_caps.xlsx
[7] https://ww3.arb.ca.gov/board/books/2020/042320/20-4-3pres.pdf
[8] EPA, National Emissions Inventory, National Annual Emissions Trend, Criteria Pollutants National Tier 1 for 1970-2018. https://www.epa.gov/sites/production/files/2018-04/national_tier1_caps.xlsx
[9] Kenneth F Davidson et al 2020 Environ. Res. Lett. in press https://doi.org/10.1088/1748-9326/ab83a8
[10] EPA, National Emissions Inventory Report (2014). See https://edap.epa.gov/public/extensions/nei_report_2014/dashboard.html#sector-db
[11] See e.g., American Lung Association website, Living Near Highways and Air Pollution. See https://www.lung.org/our-initiatives/healthy-air/outdoor/air-pollution/highways.html. EPA. (2014). *Near Roadway Air Pollution and Health: Frequently Asked Questions*, EPA-420-F-14-044. https://nepis.epa.gov/Exe/ZyPDF.cgi/P100NFFD.PDF?Dockey=P100NFFD.PDF

**Conclusion**

In conclusion, we believe it is essential to move expeditiously to develop the next generation of advanced clean car standards. The goal of carbon neutrality by 2045 from light-duty vehicles is already in serious jeopardy. Also, securing the substantial criteria pollution reductions associated with ZEV deployment as soon as possible is critical to addressing California's severe air pollution challenges. Finally, in the face of the nation's COVID-19 health and economic crisis, accelerating electrification will benefit job creation, result in infrastructure investments, and strengthen our country's manufacturing base.

EDF recommends that the Board direct the staff 1) to consider ambitious and transformative ZEV requirements in the 2035 timeframe that are consistent with the goal of achieving carbon neutrality from light-duty vehicles by 2045 and 2) to accelerate the development of its Advanced Clean Car II regulations.

Thank you.