

October 16, 2022  
Liane Randolph, Chair  
California Air Resources Board  
1001 I Street  
Sacramento, CA 95814

## **RE: Support for a stronger Advanced Clean Fleets rule**

Dear Chair Randolph and Board Members,

We the undersigned scientists from California urge the California Air Resources Board to adopt the strongest possible Advanced Clean Fleets (ACF) rule.

Electrifying heavy-duty truck and bus fleets is critical to reducing inequitable exposure to air pollution and achieving California's ambitious climate goals. Transportation contributes more to climate change than any other anthropogenic source in California. Heavy-duty trucks and buses have an outsized impact on air quality in California. Although heavy-duty vehicles make up only 7 percent of the vehicles on the road, they account for 62 percent of nitrogen oxides (NO<sub>x</sub>) and 57 percent of fine particulate (PM<sub>2.5</sub>) emissions. The negative health burdens from these toxic pollutants are disproportionately borne by highway- and freight-movement adjacent communities. Low-income communities, which already experience multiple vulnerabilities, have the fewest resources to deal with these issues. Black, Latino, and Asian American communities living adjacent to highways and ports have suffered the brunt of health impacts from diesel trucks for too long.

While the current ACF proposal is an important step in the right direction, adopting stronger requirements is both technologically feasible and critical to reducing harmful pollution and advancing the market for cleaner trucks and buses in California and elsewhere. At a minimum, the rule should accelerate the timeline for 100 percent zero-emissions truck and bus sales and require greater reductions for the most polluting classes of trucks.

### **Accelerated ZEV Rollout**

To meet the demands of the climate and air quality crises, we urge CARB to accelerate the rollout of electric trucks and buses in California. Advancing the timeline to require 100 percent zero-emissions sales by four years compared to the staff proposal (from 2040 to 2036) could result in an increase of more than 130,000 medium- and heavy-duty electric vehicles on California roads and highways in 2050. The additional emissions reductions from these vehicles would translate to an increase in cumulative net societal benefits of nearly \$10 billion compared to the current staff proposal.<sup>1</sup> Multiple studies, including one from ARB staff, estimate electric vehicles of all classes will have a favorable total cost of ownership to their combustion counterparts well before 2036.<sup>2,3</sup>

## **Prioritizing The Most Polluting Trucks**

It is also important that the ACF acknowledges and includes greater reductions for the most polluting classes of trucks. The disproportionate impact these trucks have on air quality in freight-adjacent communities and their significant contribution to transportation-related greenhouse gas emissions argue strongly that they represent high-priority opportunities for emissions reduction. Class 7 and 8 tractor trucks are the most polluting group of vehicles regulated under the ACF. Despite making up only around 11 percent of medium- and heavy-duty vehicles in California, tractor trucks are responsible for roughly 50 percent of NOx, PM2.5, and climate-warming emissions from California trucks and buses.<sup>4,5</sup> Reducing the qualifying fleet size threshold from 50 vehicles to 10 would result in an estimated 15 percent greater pollution reductions without impacting small businesses and with small impacts to CARB staff's administration of the rule.<sup>6</sup>

Additionally, the fleet milestones in Table A of the High-Priority and Federal Fleets proposal for Class 7 and 8 tractor trucks should be accelerated.<sup>7</sup> As proposed, only 10 percent of new sleeper cab tractors would be required to be zero-emissions in 2030, even as electric long-haul tractors are expected to have a lower total cost of ownership compared to diesel models that year.<sup>8</sup>

We appreciate the work ARB staff and the Board have done in the development of this critical rule, which provides overdue air quality relief to California's most vulnerable communities. However, the pressing climate crisis demands bolder action, and communities that have been overburdened for decades deserve more protection sooner. We, therefore, urge the adoption of the most protective rule feasible, as outlined above. California must continue its climate leadership and create a society where everyone, regardless of color, economic status, or community location can breathe healthy air.

Sincerely,

*Institutional affiliations are listed as provided by signers for identification purposes only, and do not imply endorsement of the letter by those institutions.*

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## ENDNOTES

1. Phadke, Amol, A. Khandekar, N. Abhyankar, D. Wooley, D. Rajagopal. (2021). “Why Regional and Long-Haul Trucks are Primed for Electrification Now.” <https://eta-publications.lbl.gov/publications/why-regional-and-long-haul-trucks-are>
2. Nair, Vishnu, S. Stone, G. Rogers, S. Pillai. (2022). “Technical Review of: Medium and Heavy-Duty Electrification Costs for MY 2027-2030.” Prepared by Roush Industries, Inc. for Environmental Defense Fund. [https://blogs.edf.org/climate411/files/2022/02/EDF-MDHD-Electrification-v1.6\\_20220209.pdf](https://blogs.edf.org/climate411/files/2022/02/EDF-MDHD-Electrification-v1.6_20220209.pdf)
3. Robo, Ellen, D. Seamonds, M. Freeman, A. Saha, D. MacNair. (2022) “California Clean Trucks Program. An Analysis of the Impacts of Low NOx and Zero-Emission Medium- and Heavy-Duty Trucks on the Environment, Public Health, Industry, and the Economy.” <https://www.ucsusa.org/sites/default/files/2022-08/ca-clean-trucks-report.pdf>
4. UCS internal analysis of Class 7 and 8 tractor fleet emissions and distribution using CARB datasets
5. Ibid.
6. Table A can be found on page A-2-20 of the Proposed Regulation Order Advanced Clean Fleets Regulation: High Priority and Federal Fleet Requirements, <https://ww2.arb.ca.gov/sites/default/files/barcu/regact/2022/acf22/appa2.pdf>
7. Nair, Vishnu, S. Stone, G. Rogers, S. Pillai. (2022). “Technical Review of: Medium and Heavy-Duty Electrification Costs for MY 2027-2030.” Published by Roush Industries, Inc. and Environmental Defense Fund. [https://blogs.edf.org/climate411/files/2022/02/EDF-MDHD-Electrification-v1.6\\_20220209.pdf](https://blogs.edf.org/climate411/files/2022/02/EDF-MDHD-Electrification-v1.6_20220209.pdf)