EARTHJUSTICE
BECAUSE THE EARTH NEEDS A GOOD LAWYER

December 9, 2019

Mary Nichols, Chair
California Air Resources Board
1001 I Street Sacramento, CA 95814

Re: Comments on the Advanced Clean Truck Regulation

Chair Nichols and Members of the Board:

Earthjustice writes to express its serious concern with Staff's proposed Advanced Clean Truck Rule. As early as 2012, CARB's *Vision for Clean Air* stated plainly that California's climate and air quality goals would not be met but for a near complete transformation to zero-emission (ZE) technologies. Since then, the urgency of our air quality and climate crises are proving graver than we previously understood.[1] Global greenhouse gas emissions continue to rise, and progress fighting air pollution is also backsliding.[2]

Now, CARB has a clear opportunity to tackle the single largest source of nitrogen oxide emissions in our State through the Advanced Clean Truck regulation. For the past three years, Earthjustice, alongside frontline freight communities, public health advocates, labor organizations, and environmentalists has urged CARB to pursue the more ambitious targets that the record shows are technically feasible. **The rule should set mandates to ensure 15 percent of trucks on the road by 2030 are zero-emissions**. Staff's proposal achieves just 4 percent ZE trucks on the road, even as their *own* analyses demonstrate that:

- **Far more trucks are highly suitable for electrification than the proposal requires to be sold.** CARB's ZE Truck Market Assessment shows that more than 70 percent of Class 4-7 trucks, and roughly 30 percent of Class 2b-3 and Class 8 trucks are highly suitable (score 1 or 2 out of 10) for electrification.[3] Staff note (and we agree) that "further advances in ZE technology will increase these percentages,"[4] but trucks ripe for electrification *today* could fulfill 80 percent of our proposed 2030 15 percent goal.[5]

- **A stronger rule is more cost-effective.** CARB's Total Cost of Ownership study finds that by the time this rule takes effect, ZE trucks will save their owners money in each of the truck categories

[1] *See, e.g.*, Naomi Oreskes *et al*., *Scientists Have Been Underestimating the Pace of Climate Change,* (Aug. 19, 2019) https://blogs.scientificamerican.com/observations/scientists-have-been-underestimating-the-pace-of-climate-change/; Nicola Davis, *Impact of Air Pollution on Health may be Far Worse Than Thought, Study Suggest* (Nov. 27, 2019) https://www.theguardian.com/environment/2019/nov/27/impact-of-air-pollution-on-health-may-be-far-worse-than-thought-study-suggests.

[2] *See, e.g.*, United Nations Environment Programme, Emissions Gap Report 2019 (Nov. 2019) https://wedocs.unep.org/bitstream/handle/20.500.11822/30798/EGR19ESEN.pdf?sequence=13; Los Angeles Times, *Editorial: Smog is Making a Comeback in Southern California. That's Beyond Unacceptable* (Jul. 3, 2019) https://www.latimes.com/opinion/editorials/la-ed-smog-gets-worse-20190703-story.html,

[3] CARB, Appendix E: Zero Emission Truck Market Assessment, at 5. https://ww3.arb.ca.gov/regact/2019/act2019/appe.pdf.

[4] *Id*.

[5] 220,000 of 280,000 vehicle sales needed to achieve this level of adoption (80%) could be met through electrification of just vehicles in the Score 1 and 2 categories today.

assessed.[6] CARB's Standardized Regulatory Impact Assessment shows a stronger rule would secure substantially more health savings than the current proposal while achieving similar cost savings for truck and bus owners, utilities, and other California businesses *even without incentives*.[7] Rapidly declining battery prices promise to further shorten payback periods, with many truck classes reaching upfront price parity by 2030 or sooner.[8]

- **Public investment in infrastructure can support more zero-emission trucks than Staff's proposal would require.** Between now and 2024, ratepayers are investing $700 million in charging infrastructure to support a minimum of 17,990 medium- and heavy-duty vehicles—more than the proposal would *cumulatively* require until 2027.[9] In a single fiscal year, the California Energy Commission (CEC) put $30 million of its annual Clean Transportation Funds into medium- and heavy-duty charging infrastructure. Much of this funding must be associated with eligible truck purchases, so greater availability of ZEVs is critical for taking advantage of the investments made to date.

Original Equipment Manufacturers (OEMs) have resisted higher sales mandates on the premise that there may not be a strong business case for ZE trucks. CARB's analyses again show the opposite: ZE trucks often exceed the economic and technological performance of conventional trucks, pre-orders for these products already exceed Staff's requirement,[10] and several major companies have voiced their support for a stronger rule.[11]

We must conclude that objections from OEMs have less to do with their customers, and more to do with their basic desire to delay the transition in order to squeeze out as much return as possible from existing investments in conventional manufacturing. This is an unacceptable justification for deferring stronger action, especially given that OEMs are projected to become vastly more profitable as trucking volumes continue to rise.[12]

In the end, the concern is not about feasibility or lack of demand, but about a lack of political will. Staff have given inordinate deference to the costs posed by worst-case charging installation scenarios and the logistical challenges of edge applications, like snow plows. To limit these potential burdens on industry,

---

[6] CARB, Appendix H: Advanced Clean Trucks Total Cost of Ownership Discussion Document, at 2. https://ww3.arb.ca.gov/regact/2019/act2019/apph.pdf

[7] CARB, Appendix C: Standardized Regulatory Impact Assessment, at 81. https://ww3.arb.ca.gov/regact/2019/act2019/appc.pdf (A stronger alternative $3.1 billion more in health savings and only $0.3 billion less in cost savings to businesses.)

[8] Due to the cost declines of batteries and electric motors, as well as the increasing costs of diesel trucks due to emission standards compliance, many zero-emission trucks are expected to be less expensive even upfront between 2027 and 2030. *See, e.g.*, Hall and Lutsey, Estimating the Infrastructure Needs and Costs for the Launch of Zero-Emission Trucks (Aug. 2019) at 22 https://theicct.org/sites/default/files/publications/ICCT_EV_HDVs_Infrastructure_20190809.pdf.

[9] CARB, Advanced Clean Trucks Workshop, (Aug. 21, 2019) at Slide 8 https://ww2.arb.ca.gov/sites/default/files/2019-08/190821actpres_0.pdf

[10] FedEx has ordered 1,000 ZE trucks, Nikola has 14,000 pre-orders for its Class 8 tractor, and Amazon invested in 100,000 ZE trucks from Rivian.

[11] CERES' BICEP Network, a coalition of 55 major employers, sent a letter urging CARB staff to increase the sales schedule in the ACT rule.

[12] McKinsey&Company, A Regional View of Truck Industry Profit Pools, (Dec. 2018) https://www.mckinsey.com/~/media/McKinsey/Industries/Automotive%20and%20Assembly/Our%20Insights/A%20regional%20view%20of%20truck%20industry%20profit%20pools/A-regional-view-of-truck-industry-profit-pools-web-final.ashx

Staff opts for a weaker rule with a larger number of emergency room visits, hospitalizations, and premature deaths. The impacts will be distributed unevenly, most predictably by race and income.[13] California's most disadvantaged communities cannot continue to shoulder these burdens.

The failure to demand more is not some harmless action that will be corrected by the market or future rulemakings. Setting weak mandates will be detrimental in multiple ways.

- First, it promises that air and climate pollution from trucks will continue to increase. The number of zero-emission trucks that the proposed rule will achieve will be outpaced by the increase in trucks on the road as a result of projected growth in freight transport.[14] Freight-impacted communities will see more and more harm as the freight industry continues to grow.

- Second, it undermines a central purpose of the rule, which is to spur major OEMs to invest in zero-emission technologies. The current proposal's targets are so low that purchases from specialty manufacturers like Rivian or Thor promise to flood the market with ZEV credits, which will allow major OEMs to continue to delay investment. This, in turn, will undermine the potential to achieve cost declines from economies of scale, further delaying the needed transition.

- Finally, these low targets mean that sufficient trucks will not be available for various California Ports, cities, and communities to meet their commitments. The Clean Air Action Plan for the San Pedro Bay Ports targets electrification of their 17,000 drayage trucks by 2035, and the West Oakland Community Action Plan targets electrification of its more than 6,000 zero-emission drayage trucks at the Port of Oakland. The proposed rule would require manufactuers to sell no more than 9,000 Class 7 and 8 tractors by 2030.[15] This weak rule gives ammunition to those seeking to undermine these commitments.[16]

---

[13] Pacific Institute, Paying with our Health: The Real Cost of Freight Transport in California (Nov. 2006) https://pacinst.org/wp-content/uploads/2013/02/paying-with-our-health-full-report.pdf

[14] TRIP, America's Rolling Warehouses: Opportunities and Challenges with the Nation's Freight Delivery System (Oct. 2019) at 2 https://tripnet.org/wp-content/uploads/2019/10/Freight_TRIP_Report_October_2019.pdf#page=36&zoom=100,0,388.

[15] The rule similarly undermines the likelihood that the City of Los Angeles will be able to meet its 600 zero-emission refuse truck goal for 2028, or its medium- and heavy-duty zero-emission truck goals as outlined in the 2028 Zero Emission Roadmap 2.0, *which CARB itself helped lead*. To get the necessary action to achieve these targets, decision-makers must know that the trucks will be available in the timeframes they have set.

[16] Already, we are seeing the ports refusing to move forward with drayage truck investments because of concerns about availability. *See, e.g.* Port of Oakland, Zero-Emissions Drayage Truck Feasibility Study (Nov. 2019) https://www.portofoakland.com/files/PDF/Zero%20Emissions%20Truck%20Feasibility%20Study%20Final.pdf.

We therefore urge CARB to strengthen the Advanced Clean Truck Regulation by:

(1) Increasing sales requirements in all classes of heavy-duty trucks ensuring no less than 15 percent of trucks on the road are zero-emission by 2030;

(2) Including Class 2b pickup trucks in the standard beginning in 2024;

(3) Outlining CARB's longer-term objectives for achieving 100 percent zero-emission trucks in various categories, and explaining how this standard is consistent with attaining state and federal air quality and climate targets; and

(4) Committing to adopt corresponding fleet purchase requirements in 2021.

Each of these changes are both feasible and critical. The State cannot rely on public investment alone to steer the entire transition of road freight in California. Overcoming the remaining barriers requires mobilizing the economic interests of large OEMs with more established supply chains, sophisticated production lines, and capacity to innovate. With such a rule, CARB will not just send a signal to OEMs to get started, it will call on them to be leaders in the creation of a new freight economy—one that is not a source of social and environmental harm. We urge CARB to continue its legacy of setting ambitious rules that protect our health, planet, and economy.

Thank you for considering our comments.

Paul Cort
Staff Attorney
Earthjustice

Sasan Saadat
Research and Policy Analyst
Earthjustice