



October 1, 2021

Liane Randolph, Chair  
California Air Resources Board  
1001 "I" Street  
Sacramento, CA 95814  
Submitted via: [zevfleet@arb.ca.gov](mailto:zevfleet@arb.ca.gov)

**RE: Advanced Clean Fleets Proposed Regulation**

Dear Chair Randolph and Members of the Board,

On behalf of the individual organizations listed below, thank you for the opportunity to provide comment on the proposed Advanced Clean Fleets (ACF) regulation, as presented at the March 2<sup>nd</sup> and March 4<sup>th</sup> workshops. We strongly support the goal of the ACF regulation to achieve “a zero emission truck and bus California fleet by 2045 everywhere feasible and significantly earlier for certain market segments such as last mile delivery and drayage applications.”<sup>1</sup>

This regulation is critical to achieving Governor Newsom’s Executive Order N-79-20, as well as regional goals for zero emission public and private deployments and emissions reductions throughout California. This includes those goals set by the San Pedro Bay Ports’ Clean Air Action Plan and the targets set by the [Transportation Electrification Partnership](#) (TEP), of which some of our partners are individual members. In the 2028 Zero Emissions Roadmap 2.0, TEP has set the following targets for LA County:

- 60% of all medium-duty delivery trucks to be battery-electric by 2028,
- 40% of all heavy-duty short-haul and drayage trucks to be zero emission by 2028,
- 5% of all heavy-duty long-haul trucks to be zero emission by 2028.

We, the signatories of this letter,<sup>2</sup> appreciate the effort undertaken to prepare the proposed regulation, and we offer the following comments and recommendations to strengthen the rule:

**1. Require 100% ZEV Sales in 2036**

Waiting until 2040 to implement a 100% zero emission vehicle (ZEV) sales requirement is unnecessary given OEMs’ increasing commitments to ZEVs and the increasing economic case for deployment of ZEVs. Moving the date for 100% ZEV sales to the earliest possible year following the culmination of the Advanced Clean Trucks rule will get deployments levels more closely aligned with what CARB’s Mobile Source Strategy requires to meet our climate goals.

Market participants are preparing for a zero emission future today, and the Advanced Clean Fleets Rule can set strong market signals that complement manufacturers’ plans. In conjunction with CARB, CEC, and the Ports of Los Angeles and Long Beach, LACI

---

<sup>1</sup> <https://ww2.arb.ca.gov/our-work/programs/advanced-clean-fleets>, accessed 9/14/21.

<sup>2</sup> These comments and recommendations are from the organizations signed below and not the entire membership of the Transportation Electrification Partnership.

released a Request for Information in 2018 that targeted, among other items, planned product roadmaps of major and start-up manufacturers. Results showed more than a dozen medium-and heavy-duty truck models planned for commercial production by 2023. Subsequent press releases by major OEMs, as well as publicized deployments of startup manufacturers have confirmed these production estimates. Additionally, this commercial production comes at a time when battery-electric vehicles have beaten cost parity with combustion engines over the lifetime of the vehicle by 13% per mile, as estimated by a recent Lawrence Berkeley National Laboratory and University of California—Los Angeles study.<sup>3</sup>

With this production momentum and financial viability in mind, CARB should use this rule to mandate 100% ZEV sales by 2036 to accelerate the economic and environmental sustainability of on-road trucking, a critical sector of California's leading goods movement industry.

## **2. Implement in-use requirements for High Priority Drayage Fleets to ensure steady progress to 2035 goals, while creating a secondary market for ZEVs along the way**

We are encouraged by the proposal to allow only ZEVs in the Port Drayage Registry starting in November 2023. However, as structured now, drayage fleets could front load internal combustion engine (ICE) vehicle entries into the registry before the 2023 date and then neglect to make additional ZEV purchases until 2035, which would reduce the possibility of a robust secondary market for ZEVs. Ensuring ample ZEV registrants before 2025 is necessary to provide smaller fleets the ability to purchase used trucks that are turned over to the secondary market after eight to ten years. Without this market, smaller fleets will be muscled out from the registry, leading to highly inequitable access to the drayage industry.

We suggest requiring a ZEV fleet composition percentage for larger drayage fleets, using the High Priority framework (including the ownership definition of own/control/contract) to determine fleet size threshold. For simplicity of compliance and enforcement, one midterm milestone of 50% in 2030 can be implemented. This structure would give ports the best chance to align with the TEP goal for 40% of short haul and drayage trucks to be zero emission by 2028. This is needed to ensure steady progress toward the CAAP goal for 100% ZEV drayage by 2035.

## **3. Lower the threshold for fleet size when defining High Priority Fleets**

The proposed threshold, requiring a fleet to have at least 50 vehicles or \$50M in revenue to be determined High Priority, leaves too many vehicles unregulated by the rule. By CARB's own account, the rule as structured would only regulate 37% of Class 4-7 trucks, and less than 15% of Class 2b and 3 trucks by 2045.<sup>4</sup> Fleets of 30 or 40 trucks are highly important to transition to zero emission to reach state goals, but the rule as stated provides no regulatory mechanism requiring these fleets to ever adopt zero emission vehicles. Additionally, fleets just over this threshold may not have a difficult time rearranging their operational or corporate structure to reduce their fleet size or

---

<sup>3</sup> Phadke, Khandekar, Abhyankar, Wooley, Rajagopal; "Why Regional and Long-Haul Trucks are Primed for Electrification Now" March 2021, *International Energy Analysis Division Lawrence Berkeley National Laboratory*

<sup>4</sup> [https://ww2.arb.ca.gov/sites/default/files/2021-03/210302emissions\\_ADA.pdf](https://ww2.arb.ca.gov/sites/default/files/2021-03/210302emissions_ADA.pdf), accessed 9/14/21

operations to fall below the 50 vehicle or \$50M in revenue threshold. Lowering the threshold to 25 vehicles will not only result in the transition of more vehicles to zero emission, but also reduce loophole opportunities to evade regulation.

#### **4. Install a purchase requirement approach to High Priority and Federal Fleets**

The goal of any regulation should be simplicity of compliance and enforcement, while creating the intended outcome. Therefore, CARB should implement an Advanced Clean Fleets rule that, when combined with mandatory retirements at the end of the vehicle's defined useful life, reaches the Executive Order N-79-20 goal of 100% ZEVs in-use by 2045 where feasible. For High-Priority and Federal Fleets, this would require 100% ZEV purchases starting in 2027, which can be phased in with 50% ZEV purchases starting in 2024 when the Advanced Clean Fleets and Advanced Clean Trucks rule go into effect simultaneously. This mirrors the current draft regulation for Public Fleets as well, further simplifying enforcement and compliance.

The current Federal administration has consistently spoken about leading the ZEV revolution in transportation, and the largest of the High Priority fleets are typically multinational corporations with public goals for carbon neutrality in the next 20-30 years. CARB therefore has an opportunity to hold these entities accountable to their commitments by installing purchase requirements that ensure these shared goals are reached.

With the California and the Federal governments aligned on the need for ZEVs, there should not be another ICE vehicle deployed where a ZEV vehicle can perform the duty cycle. For instance, the United States Postal Service, and last-mile delivery in general, is a prime candidate for electrification, and the State of California can structure the ACF regulation to ensure there is never another ICE vehicle deployed in this application.

#### **5. If necessary to use proportion approach for High Priority and Federal Fleets, combine Group 1 and Group 2 and use Group 1 percentages**

As the technology has progressed and OEMs have directed unprecedented investment in ZEVs, there is a ZEV model available today for all applications where ZEVs can perform the duty cycle. When the truck can perform the work, there should not be any distinction between the percentage required for different vehicle types. In the current draft regulation, CARB separates box trucks and vans from regional haul tractors and work trucks. LACI recommends that CARB combine these groups into one vehicle type, with a Fleet Percentage that follows the current Group 1 timeline. The revised table would look as such:

<b>Percentage of Fleet that must be ZEVs</b>	<b>10%</b>	<b>25%</b>	<b>50%</b>	<b>75%</b>	<b>100%</b>
Box trucks, vans, two-axle buses, three-axle buses, work trucks, day cab tractors, yard trucks	2025	2028	2031	2033	2035 and beyond
Sleeper cabs and specialty vehicles	2030	2033	2036	2039	2042 and beyond

This structure simplifies the rulemaking, while also pushing deployments in the applications where ZEVs are readily available and applicable today.

**6. Only allow NZEVs (plug-in hybrids) to be considered ZEVs under special, clearly defined circumstances**

Allowing PHEVs to be considered ZEVs in all weight classes and applications until 2035 will be detrimental to the development of the battery-electric vehicle (BEV) market and potentially lead to a dislocation of supply and demand during the abrupt transition to ZEV required in 2035. The architecture of PHEV is different enough from ZEV that manufacturers may struggle to pivot production capacity and supply chains. Additionally, fleets needing to transition from PHEV to BEV may have underprepared infrastructure to meet their energy needs once they add BEVs. Public charging infrastructure planning would suffer as well. Opening the door to fleets and OEMs balancing PHEV deployments while planning for a BEV future is a confusing market signal that does not further the goals of the Governor's Executive Order N 79-20 or the state's emission and pollutant reduction goals.

While there are some applications that may require PHEV based on auxiliary power needs at a work site or emergency readiness, the regulation as stated allows for fleets to deploy PHEV even when a ZEV could meet the duty cycle. Instead of universally allowing PHEV to be considered ZEV until 2035, CARB should dictate clear criteria (e.g. auxiliary power needed) for an exemption process that allows PHEV to be considered ZEV, developing these criteria in close coordination with fleets and OEMs to ensure accuracy.

**7. Offer a simple, transparent, and fair exemption process for fleets to forgo ZEV deployments in specialty applications**

With CARB's deep experience working with fleets and OEMs, it is understandable that CARB has identified some specific applications and duty cycles where ZEVs may not be feasible in the early stages of the rule. Rather than address these fleet-specific situations on a case-by-case basis, we recommend that CARB develop simple but tough criteria for public and private fleets to meet before they can be considered for an exemption. This will provide transparency for those stakeholders who wish to assess enforcement of the rules, while also providing signals to OEMs for how to develop their product roadmaps to meet all trucking applications with ZEV products. Lastly, the exemptions provided to regulated fleets should be made public for maximum transparency.

**8. Require all fleets regulated under the ACF to submit transition plans that demonstrate their path to 100% ZEV in-use by 2045 where feasible**

To ensure that important fleets are doing due diligence in transitioning to ZEVs, CARB should attach a transition planning requirement to the ACF rule that addresses vehicle procurement and infrastructure installation timelines.

These transition plans should be updated tri-annually and outline how the fleet will transition to zero emission technologies consistent with the rule's requirements. As a model, the plans could look similar to the Zero Emission Bus Rollout Plan required in CARB's Innovative Clean Transit rule, while also satisfying the ACF rule's reporting

requirements. Critically, it should include an infrastructure installation plan developed and corroborated with the fleet's electric utility. By working with utilities, the planning process will reduce uncertainty and help address one of the most significant barriers to infrastructure deployment.

A review of transition plans should also be required before a fleet can qualify for exemptions on any of its vehicles. Only fleets with approved plans should be allowed to invoke an impossibility exemption based on complications around infrastructure. Any applicant making such a request must demonstrate that they have done all due diligence with reasonable advance planning and project management. Fleets that fail to plan for transitioning their fleets to zero emission should not be eligible for exemptions.

## **9. Mandate retirement at end of statutorily defined useful life**

To achieve the zero emission fleet goals, it will be critical not only to stop the addition of new combustion trucks to those fleets, but also to remove older trucks as soon as legally allowed. SB1 protects trucks from mandatory retrofit or replacement for their statutorily defined useful lives, typically 18 years or 800,000 miles. SB1, however, also directs the Department of Motor Vehicles to deny registration for certain engine model years; specifically, for Class 4 through Class 8 trucks, 2010 and older engine model years cannot be registered beginning in 2023.<sup>5</sup>

This statutory retirement is helpful, but not sufficient to prevent older combustion trucks from remaining in fleets beyond the target dates for those fleets to be 100% zero emission. Nothing in the statute addresses retirement of post-2010 model years that have exceeded their useful lives. CARB should include in any regulatory scheme a requirement for the retirement of any truck that reaches the end of its statutorily defined useful life. Coupled with the purchase mandate above, this would mean replacements for any such trucks would be zero emission trucks. In addition to forcing the turnover of older trucks, such a regulatory requirement will also send an important signal to the market regarding the declining residual value of combustion trucks, which could provide additional incentive to invest in zero emission trucks.

## **10. Address driver misclassification by adopting 'common ownership and control' in regulating Drayage Fleets**

Companies with operational control must bear the cost of the ACF rule without shifting costs to drivers. We support the intention in CARB's proposed High Priority and Federal fleet requirements that uses the "common ownership and control" definition to identify the regulated entity. By making the "common owner" responsible for compliance, the regulatory burden and financial penalties for non-compliance correctly fall on the controlling entity.

However, CARB's current drayage truck proposal lacks a mechanism to ensure that "common owners" of drayage trucks are the regulated party, opening the door for drayage companies to offload compliance responsibilities onto drivers. To help address misclassification, CARB should maintain the "common ownership and control" definition for the Drayage section of ACF as well. CARB may use the ACT rule reporting data and

---

<sup>5</sup> Cal. Veh. Code Sec. 4000.15

Department of Motor Vehicles' Motor Carrier data to identify "common owners." After 2023, any new truck added to the "fleet" must be zero emission, with "common ownership and control" used to identify the regulated entity corresponding to each truck. Common owners should report data annually to describe the makeup of their fleet and demonstrate ZEV compliance.

Further, CARB should work with the California Workforce Development Board to require a high-road labor criterion as part of the proposed ZEV Fleet Certification. Such a criterion would allow CARB to identify firms in compliance with labor laws and conforming to the "common ownership and control" definition.

## **11. Eliminate used vehicle loophole for Public Fleets**

Proposed Section 95693.1(a)(1) mandates that starting in 2024, 50 percent of new vehicle purchases, in certain jurisdictions, must be zero emission, and, starting in 2027, 100 percent of new vehicle purchases in all jurisdictions must be zero emission. This language must be revised to apply to "the total number of ***all*** motor vehicle purchases . . ." Limiting the purchase mandate only to ***new*** vehicle purchases would create a massive loophole that would swallow the rule. Public fleets could purchase used combustion vehicles forever and never transition to zero emission. It is not enough to rely on current government practices or procurement policies that tend to favor new, rather than used, vehicle purchases. Such practices and policies can be easily revised. This rule should not invite such gaming to undermine the directives to transition to zero emission.

In conclusion, we thank you for presenting the proposed regulation for stakeholder feedback and recommend that you incorporate the proposals above to ensure that the final version puts California on a clear path to achieving state and regional zero emission vehicle deployment goals.

We look forward to working with you to ensure the success of the ACF and our zero emission transportation future.

Sincerely,

Jack Symington  
Program Manager, Transportation  
Los Angeles Cleantech Incubator