Richard Corey
Executive Director
California Air Resources Board
1001 I St.
Sacramento, CA 95814

June 4, 2021

Dear Mr. Corey,

CALSTART appreciates the opportunity to comment on the Notice of Public Availability of Modified Text and Availability of Additional Documents: Proposed Amendments to the Heavy-Duty Engine and Vehicle Omnibus Regulation and Associated Amendments ("proposed 30-day notice"). CALSTART, with its more than 280 member organizations, is dedicated to the growth of the clean transportation industry, clean air for all, and stopping climate change. At the August Board hearing on this proposed regulation, we commented in support of adopting the rule because of how critical this issue is for addressing the state's air quality needs. The data is clear that California cannot meet federal timelines for attaining health-based air quality standards without major actions such as this one.

Introduction

The fact that California's two major air basins are in extreme non-attainment for NOx, combined with the fact that more than 60 percent of transportation NOx emissions are from medium- and heavy-duty vehicles (MHDVs), speaks to the necessity of this regulatory package. This segment's impact on air quality is only growing with increases in e-commerce and freight activity. At the same time, not all of our member companies agree with the proposed regulation, and we know this measure will create challenges for certain manufacturers. However, given CALSTART's mission to reduce air pollution AND GHGs while creating jobs, we have supported this regulation, while using this comment opportunity to address some issues that we see are less controversial and have good alternative approaches.

The significance and impact of this rule cannot be understated, as tit is being considered for adoption by other states, and could also become a reference point for the U.S. EPA's development of their next phase of GHG and NOx rules for trucks. This rulemaking package is already being considered by many other states, and New Jersey is poised to "adopt" this regulation, once finalized. Given this, we encourage CARB to consider these far-reaching impacts in the Board's adoption of the final rule.

The ambitiousness of this rule is unprecedented, yet we are living in unprecedented times. Our state's non-attainment with the Clean Air Act for major air basins, and the increasing effects we are experiencing from global warming require that CARB act to dramatically reduce pollution from heavy duty vehicles. However, we should all be cognizant that what California is asking drivetrain and vehicle manufacturers to do with Heavy Duty truck development is unprecedented—California is asking them to simultaneously develop zero-emission heavy duty trucks, including long haul tractors, and to develop the cleanest possible diesel and natural gas engines. It is very challenging for any manufacturer to simultaneously conduct the necessary research and development (R&D) for two completely separate product lines.

California's direction is clear: both CARB and Governor Newsom have created specific targets around the phase-out of combustion engines in the next 15-25 years. We support that vision. But, we cannot wait for this transition to be complete in 25 years. CALSTART believes we must incentivize the industry to move faster on the zero emissions path and make zero-emission trucks (ZETs) as quickly as possible. Because there are many applications where ZETs may not be available or practicable for the next decade, we do need manufacturers to build the lowest emission combustion trucks for these segments; but CARB must use all its policy tools to drive and reward faster action toward its 2035 goals, and that means encouraging the industry to move away from combustion engines in some segments (such as urban and medium duty) and transitioning to zero-emission trucks faster. The comments we submit here focus on providing our thoughts around how to strike that balance.

Comments on CA-Averaging Banking and Trading (ABT) provisions for Zero-Emissions Trucks (Appendix B-1)

CALSTART encourages CARB, in this final stage of the rulemaking, to carefully consider the interplay between the Advanced Clean Trucks Rule and this rulemaking. Currently we find that this rulemaking seems to be sending some mixed signals to our industry partners through the CA-ABT provisions (Appendix B-1, §15.B, pp 34-44). We encourage CARB to focus on the fundamentals: we need clean air and GHG reductions as quickly as we can get them. Given the existence of the Advanced Clean Trucks (ACT) rule, this regulation should provide a pathway to encourage manufacturers to exceed compliance with ACT, and rather than discourage ZET development by favoring other technologies. This proposed regulation is an emission-based regulation aimed at reducing criteria air pollutants. It is a simple fact that ZEVs reduce pollution the most, because they bring tailpipe emissions to zero. It is better for the environment, local air quality and climate to get as many ZETs on the road as quickly as possible. Our primary concern is that the ABT scheme will have the opposite effect by encouraging the use of legacy technologies over ZETs, rather than putting them on more even footing.

California has signaled that we want and need as many ZEVs on the road as quickly they can be deployed. Given the limited nature of legislative budget appropriations, many companies may need to buy ZEVs without incentives, and the availability of incentives may continue to be uncertain in the coming years. The industry does not have certainty that incentives will exist from one-year to the next, and was not provided certainty that incentives would continue after ACT timelines begin. To meet ACT, some OEMs may end up selling ZEVs at a loss. Therefore, it is not problematic to "incentivize" OEMs to produce more ZEVs by giving them credits under this rule that are *at least* equivalent to hybrid trucks, and that *at least* last as long as the credits for hybrid trucks. Indeed, we believe ZETs should receive the highest NOx compliance credit and be strongly rewarded in the early years to encourage deep penetration.

<u>Phase-out of ZE Credits in 2026</u>

Therefore, CALSTART was encouraged that the 30-day changes maintain credits for ZETs (Appendix B-1, p40), but staff's original date of a 2031 model-year phase out is more in-line with the state's overall goals, compared to the 30-day language which ends credits for ZETs in 2026. If we want to encourage long haul tractors, for example, these trucks just have begun to come to market before the 2026 MY and deep penetration of heavy tractors in regional use will be just ramping up. So, this rule will not provide much "credit" to the manufacturers who are spending billions on R&D to develop these new vehicles. We encourage CARB not to be concerned about this somehow being "too easy" for manufacturers to comply with. It will not be easy to certify super low emission class 8 trucks, or to design and build a zero-emission tractor capable of long haul. This is going to be challenging. If CARB maintains that it is absolutely critical to eliminate credits, the phase-down approach should be developed based on a phase down by weight segmentation of the vehicle categories coming to market, rather than all ZEV credits dropping "off a cliff" in the 2026 model year.

One potential alternate path would be phase out periods for credits based on vehicle types, and their suitability for electrification. For example, a modified rule could provide increased credits in early categories to medium-duty ZETs with favorable TCOs, in lieu of credits for non-zero-emission medium-duty trucks, to encourage this segment to turn-over faster. Because ZE Tractors will be slower coming to market and will require more demonstration and pilot projects, these ZETs should maintain their credits the longest. All credits could be weighted higher in earlier years (based on when model availability is expected) and then phased down *by vehicle category* over a period of 4-5 years.

This rulemaking could reference the TCO calculations from the ACT rule, for example, to determine a phased schedule for ZEV credit model years. As written, CALSTART thinks that phase-out after 2026 sends the wrong message and could be counter-productive to the state's goals. California should be encouraging manufacturers to phase-out combustion engines in many applications where it is currently clear that zero-emission vehicles will be most viable, **not encouraging the persistence of combustion engines in certain classes longer than is necessary**. Unfortunately, this rule does not support achieving that as much as it could.

<u>Equal/ Equivalent Treatment of Clean Vehicles under ABT</u>

We also recommend that, at a minimum, if a manufacturer is exceeding its ACT sales requirements, it should absolutely be receiving credits for those vehicles under the omnibus rule beyond the year 2026. If an OEM exceeds their ACT compliance percentage in a given year, those "extra" vehicles should count for this regulations ABT scheme. It is appropriate to give credits to the manufacturer's producing the cleanest possible vehicles.

Upon review of the 30-day notice and appendices, many of our members are also still struggling with the rationale of providing multipliers to hybrid diesel trucks, but not ZETs (Appendix B-1, p. 44). The multipliers for diesel hybrids should at least apply to ZEVs in the earlier years of the rulemaking (2022-2024), and frankly should be greater. When the emissions of a ZEV are factually lower than a hybrid, giving them fewer credits in spite of their lower emissions appears arbitrary. While we are extremely supportive of hybrid technologies, and see their continuing necessity for certain applications, a hybrid diesel truck still has higher emissions than a ZEV. This point cannot be argued.

We have not seen any analysis produced which demonstrates that there is a material risk of ZEV credits "watering down" the rule and making it possible for OEMs to somehow sell a significant quantity of dirtier diesel trucks. In reviewing the rulemaking documents, we are not sure that CARB has justified its concerns, or explained why it is not arbitrary to give ZEVs lower credits, or phase out credits faster, than for higher emitting vehicles.

Finally, while we cannot find a discussion of this in the 30-day notice, CALSTART encourages CARB to allow credits to be generated for ZET manufacturers not otherwise regulated under the rule. (*ie*, ZEV only OEMs), as they are under light duty emissions standards. For all the reasons stated above, CARB should be encouraging the sales of ZETs as quickly as possible. If there is some analysis showing how this could potentially undermine the efficacy of the rule statewide, we would appreciate staff publishing such an analysis.

In summary, our primary concern is that the rule could be driving California's primary criteria and carbon goals more effectively. By "doubling down" on driving a faster and earlier penetration of ZETs via rewarding their early adoption more appropriately, and incentivizing the shift away from combustion engines, California can make maximum progress on its goals, and the communities most in need of NOx reductions will experience faster relief from harmful pollutants. Thank you for considering our concerns and recommendations as the Board considers approving this extremely ambitious and extremely complex rulemaking. We commend staff for their incredible hard work and stamina over this rulemaking process, and we hope that our recommendations will be taken as they were intended, as ideas for how to strengthen this rule and achieve cleaner air and lower GHGs as quickly as possible.

Sincerely,

Meredith L. Alexander

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Policy Director
CALSTART