



February 5, 2018

Clerk of the Board  
California Air Resources Board

**Item 18-1-4: Public Hearing to Consider Proposed California Greenhouse Gas Emissions Standards for Medium- and Heavy-Duty Engines and Vehicles, and Proposed Amendments to the Tractor-Trailer Greenhouse Gas Regulation**

Dear Chair Nichols, Vice-Chair Berg and Members of the Board:

The California Electric Transportation Coalition (CalETC) appreciates the opportunity to provide comment on item 18-1-4, *Proposed California Greenhouse Gas Emissions Standards for Medium- and Heavy-Duty Engines and Vehicles, and Proposed Amendments to the Tractor-Trailer Greenhouse Gas Regulation*.

CalETC supports and advocates for the transition to a zero-emission transportation future as a means to spur economic growth, fuel diversity and energy independence, ensure clean air, and combat climate change. CalETC is a non-profit association committed to the successful introduction and large-scale deployment of all forms of electric transportation including plug-in electric vehicles of all weight classes, transit buses, port electrification, off-road electric vehicles and equipment, and rail. Our board of directors includes: Los Angeles Department of Water and Power, Pacific Gas and Electric, Sacramento Municipal Utility District, San Diego Gas and Electric, Southern California Edison, and the Southern California Public Power Authority. Our membership also includes major automakers, manufacturers of zero-emission trucks and buses, and other industry leaders supporting transportation electrification.

CARB staff has proposed adding language to §86.1819-14 and §1037.150 that would eliminate the multiplier for zero-emission vehicles (ZEVs) if a regulation mandating these vehicles is adopted by CARB. CalETC does not support this added language and recommends deleting the language, shown in strike out here, from §86.1819-14, amended subparagraph (k)(7):

*(ii) If you generate credits from model year 2027 and earlier Phase 2 vehicles certified with advanced technology, you may multiply these credits by 3.5 for plug-in hybrid electric vehicles (PHEVs), 4.5 for electric vehicles, and 5.5 for fuel cell vehicles, ~~unless you are required to produce the advanced technology vehicle by another ARB regulation. If you are required to produce the advanced technology vehicle by another ARB regulation, you may not multiply the credits generated by those vehicles by the advanced technology credit (ATC) multipliers listed above.~~*<sup>1</sup>

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<sup>1</sup> State of California, Air Resources Board. *Appendix B-1, Phase 2 Greenhouse Gas Amendments to CALIFORNIA GREENHOUSE GAS EXHAUST EMISSION STANDARDS AND TEST PROCEDURES FOR 2014 AND SUBSEQUENT MODEL HEAVY-DUTY VEHICLES*, <https://www.arb.ca.gov/regact/2018/phase2/appb1.pdf>, page B-1-9.

CalETC also recommends deleting identical proposed added language in §1037.150(p), shown here in strike out:

*(2) If you generate credits from model year 2027 and earlier Phase 2 vehicles certified with advanced technology, you may multiply these credits by 3.5 for PHEVs, 4.5 for electric vehicles, and 5.5 for fuel cell vehicles, ~~unless you are required to produce the advanced technology vehicle by another ARB regulation. If you are required to produce the advanced technology vehicle by another ARB regulation, you may not multiply the credits generated by those vehicles by the ATC multipliers listed above~~<sup>2</sup>.*

CalETC recommends deleting the struck-out language above for the following reasons:

- Currently the federal and California GHG regulations for light-duty vehicles (LDVs) and heavy-duty vehicles (HDVs) contain credit multipliers for zero-emission vehicles. These provisions are valuable incentives for manufacturers to invest in ZEVs. ZEV technologies are significantly more expensive to produce, and consumers are not yet willing to pay the full cost of ZEV technologies. Credit multipliers and other incentives are an essential part of bringing zero-emission vehicles to market in every segment of the transportation sector.
- Given how challenging transitioning the HDV market to zero-emission technologies will be, and the inherent costs associated with the transition, it is imperative that CARB encourage and incentivize advanced-technology vehicles in the regulation. If CARB were to exclude zero-emission technologies from multiplier credits as the result of potential future regulations, the resulting uncertainty for ZEV manufacturers and customers would stifle the nascent market at a critical time. Vehicle and component manufacturers develop product plans for ZEV technologies years in advance, and they count on the multiplier credits to leverage their investment and reduce potential losses, perhaps even to help make ZEVs profitable at some point. Purchasers also plan fleet turnover and new technology investments years in advance. Lack of certainty for multiplier credits will stifle investment in these technologies.
- The provision as proposed is inconsistent with the LDV GHG regulations, which provide a GHG multiplier for ZEVs even though there is a ZEV Program in California. The LDV GHG ZEV multiplier has been invaluable for manufacturers, it has helped bring new unanticipated and innovative LDV ZEV technologies to market. The HDV ZEV market is significantly more complex and the cost of market transformation in this sector is significantly higher. It is imperative that CARB maintain the credit multipliers for zero-emission HDVs, regardless of whether a zero-emission HDV technology is mandated by regulation.

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<sup>2</sup> State of California, Air Resources Board. *Appendix B-1, Phase 2 Greenhouse Gas Amendments to CALIFORNIA GREENHOUSE GAS EXHAUST EMISSION STANDARDS AND TEST PROCEDURES FOR 2014 AND SUBSEQUENT MODEL HEAVY-DUTY VEHICLES*, <https://www.arb.ca.gov/regact/2018/phase2/appb1.pdf>. page B-1-20.

- If enacted, the proposed provision CalETC recommends striking would result in zero-emission HDVs eligible for the multiplier credit in the federal program but not the California program, eliminating a vital incentive for electrification in the freight sector and undermining California's zero-emission transportation goals.

CalETC has concerns regarding the certification process for transportation electrification. We recommend the following additions be made to §1037.230 and §1037.241:

- §1037.230: add (g) *Electric Vehicles*. Tailpipe emissions of regulated pollutants from electric vehicles (as defined in §1037.801) are deemed to be zero and therefore have the same FEL for all vehicle configurations. For such vehicle families, a family is not limited to a single year as zero emissions is below the annual standard for all model years. The initial vehicle family certificate can be used as a deem-to-comply for future calendar years of the same vehicle line.
- §1037.241: add (d) *Electric vehicles*. Tailpipe emissions of regulated pollutants from electric vehicles (as defined in §1037.801) are deemed to be zero and therefore have modeled CO2 emission rates below the applicable standards. No emissions testing is required for electric vehicles. Use good engineering judgment to apply other requirements of this part to electric vehicles. We may request documentation or systems diagrams to verify there are no alternative propulsion systems on the vehicle. To claim advanced or innovative technologies credits, manufacturers must follow annual certification per §1037.230, however such a certification is not required for introducing a vehicle into commerce.

Thank you for your consideration.

Sincerely,



Eileen Wenger Tutt, Executive Director  
California Electric Transportation Coalition