May 13, 2022

California Air Resources Board
Advanced Clean Fleets
1001 I Street
Sacramento, CA 95814

Subject: The Lion Electric Co. USA Inc. Comments on CARB's Proposed Advanced Clean Fleets Rulemaking

Dear CARB staff,

The Lion Electric Co. USA Inc. (Lion) is grateful for the opportunity to respond to the California Air Resources Board's (CARB's) Advanced Clean Fleets draft regulation. We are excited to provide comment on the topics of High Priority and Federal Fleets, State and Local Government Fleets, Drayage Trucks, and 100% ZEV Sales. Given the severe air quality challenges in many parts of the state, we appreciate CARB's dedication to continuously improve its rulemaking surrounding medium- and heavy-duty diesel fleet emissions.

Lion is the leading Original Equipment Manufacturer (OEM) of purpose-built, all-electric medium- and heavy-duty vehicles, including zero-emission trucks, school buses, and shuttle buses. Lion has successfully deployed these vehicles in California, Florida, New York, Massachusetts, Minnesota, and other states across the nation. With over 550 electric commercial vehicles on the road throughout North America, we offer an industry-leading 200 miles of range with our all-electric Class 6 truck, 170 miles with our Class 8 trucks, and 155 miles with our all-electric buses. Lion is also proud to have announced our state-of-the-art, automated facility in Joliet, Illinois, that will build up to 20,000 medium- and heavy-duty electric vehicles each year. This new factory of 900,000 square feet will be the largest electric commercial vehicle plant in the US, with the first vehicles expected off the production line in H2, 2022. Over a decade of knowledge, performance, and innovation have culminated in our dominance of this industry in which many other medium- and heavy-duty vehicle manufacturers are just now taking their first steps into the electric arena.

High Priority and Federal Fleets

Lion supports the Model Year Schedule, which requires all new fleet additions to be zero-emission vehicles (ZEVs) starting January 1, 2024. This represents a powerful step towards reducing air pollution in the state and helping California reach its zero-emission goals. Lion believes that the electric vehicle industry is ready to accommodate this requirement and will continue to improve its efforts in producing high-quality all-electric trucks and buses. However, while this may be attainable by large fleets with more immediately available resources towards the purchase of new ZEVs, small fleets with 10 or fewer vehicles may struggle to meet this requirement. Combined with the requirement to remove internal combustion engine vehicles (ICEVs) at the "end of the vehicle's minimum useful life," this can cause undue financial hardship on small or disadvantaged fleets unless appropriate incentives are made available.

We commend CARB for the changes to the Carl Moyer Program: On-Road Heavy-Duty Vehicles funding caps, which now provides up to $410,000 for qualifying heavy-duty vehicles, along with greater funding amounts for medium- and light-heavy-duty trucks and buses. This change in advance of the Advanced Clean Fleets rulemaking is a critical one, and will have a noticeable impact on small fleets transitioning to zero-emission. We encourage CARB to continue to assess incentive amounts in California and how they can be made more accessible to the fleets that need this funding the most. We also recommend that CARB work closely with California air districts to ensure that Carl Moyer funding is made available to on-road vehicle replacements and electric vehicle charging infrastructure, and not solely reserved for agricultural or off-road purposes. This will better assist fleets throughout the state with meeting the requirements of the Model Year Schedule.

We also support the Infrastructure Construction Delay Extension and Vehicle Delivery Delay Extension as outlined in the rulemaking. While the manufacturing world continues to grow its supply chain after the effects of COVID-19, the electric vehicle industry is still working towards rapid production. This means that many sectors are continuing to experience delays despite concerted efforts towards improving manufacturing timelines. It is important to take these realities into account when determining reasonable timeframes for deploying new electric vehicles and charging infrastructure. We recommend that CARB provide reasonable flexibility for fleets who are taking active steps towards transitioning by providing these extensions for longer than one year if necessary. If, at the end of the one-year extension, the fleet needs additional time to comply and can demonstrate that they have continued to work towards acquiring zero-emission infrastructure or vehicles, this should be taken into consideration.

In the event of delayed production, Lion recommends that a fleet be allowed to request an exemption without having to choose another manufacturer, even if they have the same class of vehicle commercially available. We reason that while other manufacturers may offer the same model of vehicle, it is important to consider additional attributes such as vehicle range, service quality and locations, and training that may influence a fleet’s decision to choose a particular OEM. Additionally, a delayed vehicle may still already be in production and requiring a fleet owner to choose an alternative supplier will mean starting the production process over with the new OEM. It is likely that this process will result in continued delays and may be detrimental to the quality and lifespan of the new vehicle, which may be rushed to meet the deadline. While Lion fully supports streamlined ZEV adoption across all vehicle classes, we also want these vehicles to outlast ICEV options, which means putting an emphasis on quality as well as expediency.

State and Local Government Fleets

Lion is in support of CARB’s recommendation to require public agency fleets to only add zero-emission vehicles beginning January 1, 2024. This will ensure that state attainment goals are swiftly achieved. We also applaud the extension for public agencies located in low population counties to January 1, 2027, as they may have fewer resources and need more time to develop a plan for compliance. We recommend that CARB continue to make funding available for a variety of medium- and heavy-duty ZEVs to support public agencies’ transition to zero-emission fleets.

Lion is in support of CARB’s recommendation to allow the early or excess addition of ZEVs to count towards future purchase requirements. This rule will help fleets comply sooner and benefit early adopters of ZEVs who have already ordered new vehicles. Additionally, we support CARB’s efforts to accommodate delays in the infrastructure installation process by excusing fleets for up to a year. With the current trend of supply chain delays and worker shortages, the production and installation of charging infrastructure are on an uncertain timeline. Many of these factors are out of fleets’ control. Allowing fleets maximum flexibility on infrastructure installation will ensure more fleets are compliant within the specified timeframe.

We recommend that CARB make its incentive programs flexible in allowing vehicles purchased with state-provided funding to count towards compliance during the funding contract period. Many fleet owners rely upon funding programs to purchase new zero-emission vehicles. By ensuring that many programs allow newly purchased vehicles to count as compliant during the contract period, more fleets will be compliant sooner, and more fleet owners will be incentivized to participate in funding programs, hastening the attainment of state goals. Allowing incentive funded vehicles to count towards compliance immediately would especially benefit small fleets that generally have fewer financial resources to purchase new ZEVs, and therefore less means to become quickly compliant. We urge CARB to consider the impact on fleets when determining ACF compliance guidelines for its funding programs.

Drayage Trucks

Lion is in support of CARB's recommendation to require all new drayage trucks registering in the Drayage Truck Registry (DTR) to be zero-emission beginning January 1, 2024. Drayage trucks are among the most polluting in-use on-road heavy-duty vehicles in the goods movement sector. Many drayage fleets and individual owner-operators employ older, used drayage trucks to serve their operations. Because of this, the drayage sector tends to be composed of much older trucks, on average, than many other goods movement segments, such as last-mile delivery. In addition, drayage operations tend to disproportionately impact low-income communities and communities of color, as these communities are often located near facilities that attract drayage trucks – railyards, ports, and distribution centers. CARB's goal to begin the transition to a zero-emission drayage sector in 2024 is reflective of the state's dire need for swift and impactful action to reduce diesel emissions, especially in our most vulnerable communities.

Lion recommends that CARB consider a flexibility option under this condition specifically for small fleets, which we suggest could be defined as fleets having 10 or fewer drayage trucks. These fleets tend to have fewer financial resources at their disposal to begin their transition to electric, even with generous funding from incentive programs. CARB well knows that many small fleet drayage operators purchase very old, used drayage trucks for use in their operations due to their relatively low cost. Thus, even CARB's generous portfolio of funding today cannot bring the cost of zero-emission drayage truck down to the cost of an old, used diesel drayage truck – the type of truck most used by these small fleets. To provide some relief to these fleets, which represent the backbone of California drayage operations, with over 90% of these fleets owning 20 or fewer trucks, Lion suggests allowing a 2-year extension to this deadline specifically for these small fleets (10 trucks or fewer), such that the compliance deadline would be January 1, 2026.

Lion is also in support of CARB's recommendation that all legacy drayage trucks registered in the DTR will be considered noncompliant by March 31st of each calendar year after the 13-year or 800,000-mile/18-year sunset proposed in the draft language. In consideration of factors explained above, Lion supports CARB's aggressive turnover schedule for drayage trucks in this state to ensure the highest-polluting vehicles are removed from roads a timely fashion, thus ensuring emissions reductions. However, Lion recommends that CARB support flexibility for small fleets for this recommendation in the same manner that we did for our first recommendation, above. Small fleets could possibly have a longer allowed vehicle lifespan or operating mileage to account for their practice of purchasing old, used diesel trucks to reduce costs, as these fleets do not have ample financial resources at their disposal, unlike many large fleets.

Lion agrees with CARB's recommendation to require all drayage trucks to operate with a zero-emission powertrain beginning January 1, 2035. This deadline allows fleets of all sizes ample time to plan for and implement their fleetwide electrification goals to ensure compliance with this requirement in a timely manner. This requirement will help secure permanent emissions reductions within one of the most polluting goods movement sectors in the state and will protect clean air for our most highly impacted communities located along trade corridors.

Finally, Lion is in support of CARB's recommendation to prohibit legacy drayage trucks from being repowered to extend compliance. Lion recognizes the fact that CARB acknowledges here that repowers simply extend the lifetime emissions caused by vehicles by providing them with a new, internal combustion engine. Even if the new engine is a relatively "cleaner" diesel-powered engine, it will still emit diesel exhaust, polluting the air of local communities through which these drayage trucks operate. CARB is correct in prohibiting legacy drayage trucks from being repowered to achieve compliance. There is no cleaner option than a zero-emission powertrain and Lion fully supports CARB's goal for these vehicles to become emission-free. However, Lion would like to note that diesel drayage truck chassis repowered with zero-emission powertrains would not be as efficient or effective as zero-emission vehicles as they would be were they purpose-built to be zero-emission. Retrofits are not designed from the ground-up with zero-emission powertrains in mind, so they may inherently have design or functionality flaws that purpose-built zero-emission drayage trucks may not have.

100% ZEV Sales

Lion supports the 100% ZEV Sales Requirement stating that all Class 2b-8 vehicles sold in California must be ZEV by 2040. This is in accordance with California's goals to fully transition to ZEVs in all vehicle categories between 2035-2045 and drastically reduce air pollution created by medium- and heavy-duty diesel fleets. As other state and federal agencies look to CARB guidelines to set their standards, such as the Environmental Protection Agency's (EPA's) current Heavy-Duty Engine and Vehicle Standards Proposed Rule, it is vital that California continue to lead the way in electrification. Successful implementation of this regulation will positively influence air quality goals in other states, leading to an even greater reduction in NOx and greenhouse gas emissions throughout the nation. In addition, it will solidify the importance of ZEV production among vehicle manufacturers and help achieve cost parity with combustion engine vehicles at a quicker rate. Requiring fully zero-emission vehicles means a commitment to the highest level of emissions reduction and encourages continued investment into electric vehicle technology.

We also support the associated reporting and recordkeeping requirements to ensure manufacturers are compliant. The 90-day annual reporting time frame is adequate for manufacturers to provide vehicle delivery details. We recommend that as part of the reporting process, ZEV manufacturers continue to be allowed to generate credits, as they are for the Advanced Clean Truck rule. This will incentivize manufacturers to rapidly adopt ZEV technologies and offset some of the costs associated with production.

Conclusion

Once again, Lion appreciates the opportunity to provide comment on the Advanced Clean Fleets Rulemaking. CARB's dedication to constantly improve emission regulations to relieve the health and environmental burden of air pollution in California is admirable and necessary. Lion stands ready to support CARB in its efforts to reduce emissions by providing purpose-built, all-electric trucks and buses throughout the nation.

We would like to thank you for taking the time to read our comments. We look forward to continuing to work with you to promote clean air for communities in California.

Sincerely,

The Lion Electric Co. USA Inc. Team