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California Air Resources Board  
1001 I Street  
Sacramento, CA 95814

**Re: Comments on the Proposed Innovative Clean Transit Regulation**

Dear Chair Nichols and Members of the Board:

Thank you for this opportunity to comment on the update to the Innovative Clean Transit (ICT) process. BYD is a manufacturer of zero emission heavy-duty vehicles here in California. Our North American headquarters is based in Los Angeles and manufacturing facilities are located in Lancaster. We are a proud union company that has invested in a diverse workforce of nearly 1,000 employees.

With the ICT rulemaking, California has the opportunity to significantly reinforce its role as a leader in the fight against climate change, especially in the wake of the Global Climate Action Summit, while simultaneously improving the lives of many of the state's most disadvantaged populations. BYD strongly supports the rule's goal of transitioning California's transit fleets to zero-emission by 2040 and stands ready to do its part to make that transition a reality.

As a stakeholder engaged since the early days of the rulemaking, BYD is pleased to see the process entering its final phases. The environmental benefits that will be derived from the rule cannot be underestimated, nor can the health benefits that will be realized with the reductions in criteria air pollutant emissions. The rule will also send a critical signal to the market that zero-emission buses are here to stay, which will in turn drive technology transfer and investment in the truck sector, as was the case for BYD's vehicles.

With this background in mind, BYD would like to offer the following comments in support of the rule.

**Continuing Successes in Electric Bus Deployments**

In California, we have delivered 79 all-electric, zero emissions buses to transit authorities with another 122 orders on the way. We currently have 19 public transit customers in California. We also have provided more than 100 buses to public and private entities, like LAX and a number of Silicon Valley technology companies, with another 161 buses on order. BYD is particularly excited to have 77 buses in operation at universities in California, including more than 40 buses in Stanford's system, all of UC Irvine's 100% electric bus fleet, and the first electric buses in operation at UCLA and UCSF. Once the California Air Resources Board finalizes its Innovative Clean Transit Rule, we fully expect the potential for zero emissions buses to be realized.

**Leasing Programs as a Tool to Catalyze Adoption Rates**

Many OEMs also offer lease options to public transit agencies to reduce the friction of the zero-emission transition. BYD, for example, allows a transit agency to buy the rolling stock for an electric bus for the same cost as a diesel bus and to lease the battery, thereby opening the door for large-scale deployments

that are truly transformative. This arrangement allows fleets to make the transition while significantly mitigating their exposure to financial risks. Additionally, a leasing program makes it possible for transit agencies to utilize operational savings to pay for the cost of the monthly battery lease payment. And, in an effort to almost completely remove risk for public fleets, some OEMs (including BYD) cover their batteries with a 12-year unlimited mile warranty.

### **Reliable Funding for Transit Agencies**

Although financing options are available and provide some flexibility, support from the state remains critical to achieving the emission reduction goals that undergird the need for this rule. To ensure that the rule succeeds, BYD would like to reiterate the need for CARB and other state agencies to identify dedicated and reliable funding streams to help offset the incremental cost between ZEBs and conventional buses, especially in the form of voucher programs such as HVIP. The strength of voucher programs is their convenience and agency staff should make it a priority to keep the redemption process as streamlined as possible.

Importantly, the funding should be accessible to transit agencies for funding regulatory compliance. Although CARB policy has historically adhered to a “polluter pays” principle to put guardrails between funding programs and regulatory compliance, the ICT rule’s narrow application to solely transit agencies calls for a more nuanced analysis. Previous regulations prevented access to subsidies for compliance because doing so would require the use of public state funds to bring private fleets into compliance.

As the ICT rule only applies to *public* transit agencies, which rely solely on fares and funding from federal, state and local sources, the concern about public funds going to private fleets is not applicable in this case. Additionally, transit agencies provide an essential public service to the state’s most disadvantaged communities, which argues strongly for the ability to continue to access state incentives to ensure that these services operate smoothly. A dedicated and reliable funding stream will ensure that funds meant to ensure service reliability and state of good repair and not diverted. For these reasons, BYD strongly urges the Board to allow transit agencies to continue to access vouchers even after the rule goes into effect.

### **The ICT Rule Will Drive Technology Transfer and Investment**

Accelerating the deployment of zero-emission trucks is critical to California’s air quality goals, especially with respect to PM and NOx mitigation and control. Heavy-duty vehicles – especially buses and trucks – represent a significant source of these emissions. The Union of Concerned Scientists released a report showing that heavy-duty vehicles, including trucks and buses, emit 33% of California’s oxides of nitrogen and 40% of the state’s particulate matter<sup>1</sup>.

The ICT rule will catalyze the large-scale deployment of zero-emission trucks, both on- and off-road, and combat the emission of NOx and PM. This is because battery electric buses and trucks share the same drive train and power source technologies. It is important to note that the most expensive components of battery electric buses, like battery cells, electric motors and inverters, are the same components used to power battery electric trucks—only the chassis changes. This means that as bus manufacturing scales up, truck manufacturing will scale up, as well. Finally, it is important to note that increased demand for, and manufacturing of, both battery electric buses and trucks will allow BYD to significantly increase its California employee base. Adoption of the ICT means that these economies of scale will become a reality in a shorter timeframe, allowing California to enjoy the air quality and economic benefits even faster.

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<sup>1</sup> <https://www.ucsusa.org/sites/default/files/attach/2016/10/UCS-Electric-Buses-Report.pdf>

## Conclusion

The ICT rule is a critical component of California's effort to meet the challenges of climate change. The time to adopt the rule is now. BYD thanks the CARB Board Members and staff for their efforts in developing this plan as well as for the opportunity to provide comments. We look forward to the opportunity to discuss these concepts with you in more detail soon. For questions or more information, please contact myself, Zach Kahn ([zach.kahn@byd.com](mailto:zach.kahn@byd.com)), Sam Jammal ([sam.jammal@byd.com](mailto:sam.jammal@byd.com)) or Mark Weideman ([mark@weidemangroup.com](mailto:mark@weidemangroup.com)).

Sincerely,



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