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Clerk of the Board
California Air Resources Board
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Re: Proposed Fiscal Year 2021-22 Funding Plan for Clean Transportation Incentives

Rivian Automotive, LLC ("Rivian") appreciates the opportunity to comment on the Proposed Fiscal Year (FY) 2021-22 Funding Plan for Clean Transportation Incentives. With its bold greenhouse gas (GHG) emissions reductions goals and ongoing commitment to incentives, California and the Air Resources Board (CARB) continue to demonstrate leadership in transportation electrification that is recognized across the country and around the world. Rivian applauds the state's preparedness to invest billions of dollars in accelerating the electric vehicle (EV) transition, but we urge CARB to consider some potential changes to the funding plan's proposals for the Clean Vehicle Rebate Project (CVRP) and the Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project (HVIP), in particular, that would maximize the impact of these programs.

Keeping the World Adventurous Forever

Rivian is an independent U.S. company dedicated to keeping the world adventurous forever with our lineup of all-electric adventure vehicles™. Deliveries of our R1T truck have already started and production of the R1S SUV will begin later this year. With features like an electric motor at each wheel, over 300 miles of range on a single charge, 0-60mph times of 3 seconds and the ability to tow up to 11,000 pounds (R1T), these products will open a new class of electric vehicles to consumers, meeting ever-growing demands for performance and capability while emitting zero tailpipe emissions. In addition to the R1 vehicles, Rivian will also deliver 100,000 all-electric last-mile delivery vans to Amazon in the coming years, reducing greenhouse gas (GHG) emissions from the delivery sector and improving local air quality around logistics hubs, along key travel corridors, and in neighborhoods. These all-electric delivery vans will be produced at the same Normal, Illinois, assembly plant as the R1T and R1S beginning in 2021.

Certain High-Impact Vehicles Fall into an Incentive Gap in California's Programs

As first to market with an all-electric pickup, Rivian has also been among the first manufacturers to identify an incentive gap in California's EV rebate programs. Specifically, the Rivian R1T does not qualify for CVRP due to its Manufacturer Suggested Retail Price (MSRP), nor HVIP as the vehicle was not designed exclusively for commercial use. And because the R1T's gross vehicle weight rating (GVWR) slightly exceeds 8,500lbs due to its long-range battery pack and towing capability—both high-demand features customers of electric pick-ups expect—the R1T is currently ineligible for the Clean Fuel Reward (CFR). (The state's electric utilities, who administer the CFR and fund it using credit revenue generated under the Low Carbon Fuel Standard, point to provisions in the enabling regulation, promulgated by CARB, in determining eligibility for the rebate.[1] CARB's regulation currently defines the CFR as a rebate for "light-duty" vehicles only, which in turn are defined by the regulation as vehicles with a GVWR at or below 8,500lbs.[2])

Consequently, a critical class of widely appealing, high-impact vehicles are excluded from state funding opportunities intended expressly to both accelerate the pace and broaden the reach of transportation electrification. We believe this undermines the state's own goals. Rivian's R1T competes directly with and will displace some of the most polluting passenger vehicles on California's roads today. In doing so, it also has the potential to reach a market segment that is more rural and concerned with vehicle capability and performance and not well served by many of the current EV market's offerings. To ensure the quickest and most widespread transition to EVs, and by extension the deepest and most accelerated emissions reductions in the transportation sector, California should think strategically about the program parameters and eligibility criteria that govern its full suite of incentives. With this as context, we recommend some changes to elements of the FY2021-22 Funding Plan as proposed.

Rivian Appreciates CARB's Commitment to Supporting Consumer Incentives but Recommends Some Changes to the Funding Plan's Proposals

Rivian's mission to keep the world adventurous forever is made manifest in its commitment to the environment and addressing climate change. We strongly support bold regulatory programs to reduce GHG emissions and accelerate rapid EV adoption in the transportation sector, underpinned by highly resourced incentive and funding programs as critical enablers of California's policy ambitions.

We applaud CARB's continued demonstration of leadership in these areas. Not only does CARB continue to design groundbreaking new climate policies such as the Advanced Clean Trucks and pending Advanced Clean Cars II regulations, but the agency—supported by the Legislature and governor in setting California's budget—remains admirably committed to allocating robust financial resources to a comprehensive funding plan. We also recognize that even with this commitment staff must balance many competing priorities and work within a limited budget. This is no easy task. Rivian appreciates the hard work that

[1] California Clean Fuel Reward/Southern California Edison, *Annual Report 2020* (2021), 4, available at https://cleanfuelreward.com/sites/default/files/2021-05/CCFR_2020_Annual_Report_043021_Public_0504version.pdf.
[2] 17 C.C.R. § 95481.

went into developing the draft funding plan for FY2021-22 and acknowledges that staff have made recommendations that seek to stretch the available funding for high-demand initiatives such as CVRP and HVIP.

Nonetheless, we believe that CARB should consider some additional changes to these programs to meaningfully support a full cross-section of EVs and maximize funding availability.

Establish a "Medium-Duty Vehicle" Category within a Tiered CVRP Framework

Rivian broadly supports tiering the CVRP program, capping eligibility at different levels for vehicles in substantially different vehicle categories. Conceptually, such a division can better reflect real differences in vehicle costs and utility while allowing for a more cost-effective disbursement of CVRP's resources. Rivian also supports staff's recommendation for FY2021-22 to cap vehicle eligibility in the "Cars" category to those with an MSRP of $45,000 or below.

However, **we recommend CARB establish a third category—or perhaps a sub-category within "Large Vehicles"—for medium-duty vehicles including** medium-duty passenger vehicles and medium-duty trucks that do not qualify for HVIP (i.e., vehicles exceeding 8,500lbs GVWR and not exclusively designed for commercial use). We recommend a vehicle price cap of $80,000 in this category. There are several reasons why we believe this is appropriate.

Large, highly capable EVs like Rivian's R1T do come at a price premium. This is driven in part by significantly larger battery packs designed to deliver the range customers expect across a variety of demanding applications such as towing and off-road driving.[3] And for new market entrants, additional upward pressure on prices can exist until production and delivery reaches mass-market scale. Early models—especially in nascent market segments such as EV pickups and SUVs—carry the weight of large upfront investments and overhead. The R1T features a 135kWh battery pack—more than twice the size of battery packs in typical passenger car offerings such as the Chevrolet Bolt, and 35 percent larger than even existing electric SUV-style products like the Tesla Model X. This represents significant added cost. An MSRP cap of $80,000 for EVs in the medium-duty category—almost twice that proposed for cars and a third more than proposed for other large vehicles—would reasonably reflect this difference.

Extending CVRP support to these vehicles would also reflect their important environmental contributions. Our own customer data show that trucks like the R1T compete directly with and replace some of the most polluting vehicles on California's roads. In doing so, the R1T delivers disproportionate vehicle-for-vehicle benefits for air quality, public health, and the climate—benefits that are at the heart of CVRP's purpose.

[3] Compounding this, there are also new warning signs that rising costs in the lithium market could upend conventional assumptions that EV battery costs will continue to fall in the coming years, per Pratima Desai, *Reuters*, "High Lithium Costs Start to Feed into Prices of China EV Batteries—BMI" (Oct. 29, 2021), available at https://www.reuters.com/technology/high-lithium-costs-start-feed-into-prices-china-ev-batteries-bmi-2021-10-29/; Zandi Shabalala, *Reuters*, "Surge in Electric Vehicle Sales Power Lithium Prices as Shortages Loom" (Sep. 13, 2021), available at https://www.reuters.com/business/autos-transportation/surge-electric-vehicle-sales-power-lithium-prices-shortages-loom-2021-09-13/; Annie Lee, *Bloomberg*, "The Commodity Boom Is Starting to Push Battery Prices Higher" (Nov. 4, 2021), available at https://www.bloomberg.com/news/articles/2021-11-04/the-commodity-boom-is-starting-to-push-battery-prices-higher.

If establishing an entirely new category or sub-category presents administrative challenges, Rivian would encourage CARB to look again at the MSRP cap for large vehicles and consider raising that figure, at least in the short-term, to be inclusive of high-utility, high-impact trucks and SUVs entering the market at the top end of the GVWR spectrum. Even a time-limited action to make such vehicles eligible would address the immediate reality that such vehicles are ineligible for all the state's major incentive programs and help this important segment of the market secure a foothold and mature.

Focus CVRP on Battery Electric Vehicles (BEVs) Only

To maximize CVRP's climate and air quality benefits while stretching the available funding as far as possible, Rivian supports CARB making strategic choices in which advanced vehicle technologies to incentivize. We specifically welcome steps taken by CARB, pursuant to legislative direction, to set new standards for plug-in hybrid (PHEV) eligibility and prepare for the eventual phase-out of such vehicles from the program. But we believe CARB should go farther than it has proposed.

Phase Out PHEVs in 2022. Incentivizing PHEVs rewards a "pass-through" technology with potentially unreliable environmental performance. Research from Europe suggests that PHEVs can deliver significantly poorer environmental benefits in real-world usage than certified under test procedures.[4] Moreover, the need for PHEVs to "bridge" the driving public to an electric future has all but vanished with a full lineup of EVs now available on the market. We believe it would be imprudent for CARB to continue incentivizing this technology in the context of a limited budget and when more impactful long-term alternatives exist.

End Bonus Treatment for and Phase Out FCEVs. FCEVs continue to receive special treatment in CVRP in the proposed funding plan. This includes an exemption from the program's income cap and higher rebate amounts versus other technologies.[5] We recognize that CARB has long intended for CVRP to support the maturation of new ZEV technologies and that FCEVs have in the past represented a potentially promising pathway to deep emissions reductions in the sector. At one time, it made sense to provide support for a portfolio of potential solutions. Yet we believe that passenger vehicle market conditions no longer warrant sustained public support for this technology at the expense of viable solutions. Despite generous incentives that exceed those of peer technologies, sales of FCEVs remain negligible while BEVs have clearly won over consumers and investors as the predominant powertrain of a decarbonized future.[6] It is time for CARB to concentrate limited resources on the transition to the proven technology and environmental benefits of BEVs.

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[4] Patrick Plotz et al., The International Council on Clean Transportation, *Real-World Usage of Plug-In Hybrid Electric Vehicles: Fuel Consumption, Electric Driving, and CO_2 Emissions* (2020), available at https://theicct.org/sites/default/files/publications/PHEV-white%20paper-sept2020-0.pdf.

[5] California Air Resources Board, *Proposed Fiscal Year 2021-22 Funding Plan for Clean Transportation Incentives* (2021), 41, available at https://ww2.arb.ca.gov/sites/default/files/2021-10/fy21-22_fundingplan.pdf.

[6] Between January 2011 and January 2021, slightly less than 7,500 FCEVs were sold in California. Over the same timeframe, Californians bought more than 480,000 BEVs, per Alliance for Automotive Innovation, *Electric Vehicle Sales Dashboard*, https://www.autosinnovate.org/resources/electric-vehicle-sales-dashboard (last visited Nov. 8, 2021).

Reconsider Proposed Fleet Size Restrictions for HVIP

The extraordinary demand for HVIP vouchers is a testament to the tremendous need and enthusiasm that exists for heavy-duty electrification incentives, but it has also turned the program into something of a lottery. Rivian therefore recognizes the need for CARB to explore ways to maximize limited funding and acknowledges that proposals for fleet size limits were designed with this concern in mind. However, we question whether hard limits that categorically bar large fleets from HVIP, especially when implemented as soon as 2023, make the most sense. While smaller fleets might be relatively less well-resourced than larger operations on average, the proposed limits assume this is universally true. A rigid cap thus risks working against certain operators who might fall on the wrong side of a fleet limit but still need HVIP vouchers to make the purchase of a new electric vehicle work. Larger fleets are also more likely to be operated by or on behalf of large parent corporations such as those represented in groups like the Corporate Electric Vehicle Alliance, the very companies most likely to be setting bold climate commitments and looking to accelerate efforts to decarbonize their operations.[7]

Rivian encourages CARB to reconsider its approach and entertain alternatives to the proposed fleet size limits. These could include **delaying the introduction of fleet size limits, or a "hold back" provision to ringfence some portion of funds for larger fleets** even within a framework that otherwise aims to provide additional support to smaller owners and operators.

CARB might also preserve incentives for larger fleets at a reduced rate, perhaps reforming the program to **step down the voucher amounts for fleets over a certain size rather than eliminate them entirely.** For manufacturers and customers, addressing the uncertainty inherent in heavily oversubscribed programs like HVIP is key. In a budget-constrained environment, Rivian supports smaller incentives to ensure that more of them can be available to all fleets.

Conclusion

As we have noted, Rivian applauds the state's preparedness to invest billions of dollars in accelerating the EV transition and we thank the agency again for the opportunity to comment on the funding plan. We believe that with the changes we recommend above, CARB can strengthen its plan yet further. We look forward to the upcoming hearing and CARB's consideration of staff's proposals.

Sincerely,

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[7] Ceres, *Corporate Electric Vehicle Alliance*, https://www.ceres.org/climate/transportation/corporate-electric-vehicle-alliance (last visited Nov. 8, 2021).