June 24, 2022

Clerks' Office
California Air Resources Board
1001 I Street
Sacramento, CA 95814

SUBMITTED ELECTRONICALLY TO: www.arb.ca.gov/applications/public-comments

**Re: Draft 2022 Scoping Plan Update**

To Chair Randolph and Members of the California Air Resources Board,

Rivian Automotive, LLC, ("Rivian") appreciates this opportunity to comment on the draft 2022 Scoping Plan. The development of the Scoping Plan is a critical step in the state's journey toward achieving California's statutory greenhouse gas ("GHG") emissions reductions goals. Rivian is strongly supportive of ambitious efforts to reduce GHG emissions and applauds the leadership demonstrated by the California Air Resources Board ("CARB") over many years of climate policy development. As a manufacturer of electric vehicles ("EVs"), Rivian's primary interest is in the Plan's vision for the transportation sector and the Plan's role in supporting carbon neutrality in California. Our comments focus narrowly on the Proposed Scenario with respect to the transportation sector, and some of the Scenario's implications for policymaking. Rivian generally supports the transportation actions identified in the proposed scenario. But in certain respects, the proposed scenario could go farther and in others the scenario reveals gaps in the state's existing policy approach.

## Keeping the World Adventurous Forever

Founded in 2009, Rivian is an independent company headquartered in California where we maintain office locations in Irvine and Palo Alto, as well as customer-facing service centers in several cities. With approximately 5,000 employees across the state and more than 12,000 around the world, Rivian's mission is to Keep the World Adventurous Forever. Rivian's focus is the design, development, manufacture, and distribution of all-electric adventure vehicles, specifically pickups, sport utility vehicles, and commercial vans. Key to the success of our mission, these vehicles will displace some of the most polluting vehicles on the road today.

Rivian brought the first electric truck to market last year when we launched the R1T pickup from our manufacturing facility in Normal, Illinois, followed shortly thereafter by the R1S SUV and a commercial fleet electric delivery van for Amazon. All our vehicles are considered medium duty for regulatory purposes and satisfy ZEV requirements under both ACCI and the Advanced Clean Trucks rule ("ACT"). The R1T and R1S provide all-electric options in segments where added utility is a necessity. The R1T has an EPA-certified 314-mile range and 11,000lbs of towing capacity, while the R1S is a seven-passenger full-sized SUV. Rivian is also building a network of DC fast and Level 2 chargers across the country, including at sites on public lands such as the Golden Gate National Recreation Area and Yosemite National Park.

## The Proposed Scenario for Transportation Could be More Ambitious and Underscores the Importance of Gaps in Existing State ZEV Policy

Rivian strongly supports state efforts to design and implement far-reaching public policies that will shift our energy and transportation systems entirely away from fossil fuels. The Scoping Plan is the foundation of California's efforts to effect such a change in the state, balanced with feasibility and economic impact considerations, and must comprehend trends and potential actions across the entire economy. This is no easy task. Rivian applauds CARB and staff for their commitment to this endeavor and their thoughtful efforts to date in developing the draft Plan.

Rivian's comments are focused narrowly on the Proposed Scenario with respect to the transportation sector. Our review of the draft Plan found that certain aspects of the Proposed Scenario for transportation could be more ambitious while underscoring the importance of gaps in existing ZEV policy in California. Rivian has previously identified some of these gaps in various engagements with state policymakers.

### California's Transition to 100 Percent Light-Duty ("LD") ZEV Sales Could Go Faster

The Proposed Scenario transitions California's LD vehicle market to 100 percent ZEV sales by 2035, in alignment with the requirements of the proposed Advanced Clean Cars II ("ACCII") regulation. Rivian strongly supports this goal but believes California could be even more ambitious, commensurate with the urgency of the climate crisis and the state's air quality challenges. Rivian is a member of the Zero Emission Transportation Association ("ZETA"), the first industry-backed coalition advocating for 100 percent of new vehicles sold by 2030 to be electric. What seemed aspirational at ZETA's founding is quickly becoming both more plausible and more necessary. Rivian has consistently supported the most ambitious possible regulatory standards and policies to decarbonize transportation. Consistent with our comments on the ACCII rulemaking, we believe a 100 percent ZEV sales requirement earlier than 2035 is achievable and/or that the state could increase the interim sales targets in the ZEV regulation—such as those for 2026 and 2030—to align with the Mobile Source Strategy.[1]

### Consider Feebates to Accelerate ZEV Sales

Feebates simultaneously incentivize ZEV purchases while deterring the sale of polluting conventional vehicles, helping to accelerate fleet turnover. Designed well, a feebate can be essentially self-funding and effective. The International Council on Clean Transportation has called feebates "one of the best available policy options for reducing passenger car emissions."[2] In the past, opponents of feebate proposals have argued that such a policy would unfairly penalize drivers who need relatively more polluting trucks or vans to meet their needs, or that feebates are too complex to administer. But automakers today offer no-compromise, zero-emission alternatives in every vehicle segment, including multiple pickups, SUVs, and vans. And feebates have been implemented for several years in European markets, providing a model for

[1] California Air Resources Board, *2020 Mobile Source Strategy: Vision Model LDV Raw Data and Results* (December 10, 2020), spreadsheet available at www.arb.ca.gov/resources/documents/2020-mobile-source-strategy.
[2] The International Council on Clean Transportation, Feebate Simulation Tool, available at www.theicct.org/tools-feebate-simulation/.

subsequent jurisdictions to follow and learn from.[3] Here in the U.S., New York's own draft climate scoping plan formally recommends a feebate as part of its transportation sector strategy, validating the potential strength of this approach.[4] CARB should emulate New York's direction and evaluate the benefits of a feebate, among other complementary policies, in supporting the goals of the Proposed Scenario.

## Phasing Out Plug-In Hybrid Electric Vehicles ("PHEVs") Would Further Reduce the Transportation Sector's Emissions

The Scoping Plan describes PHEVs as a "bridge technology in the transition to complete ZEVs."[5] Yet the Proposed Scenario envisions PHEVs comprising roughly 16 percent of California's vehicle sales *in 2045*—an unnecessary weight on the state's progress toward carbon neutrality in that timeframe.[6] Numerous manufacturers have committed to introducing all-electric vehicles in the coming years and a wide array of long-range battery electric vehicles ("BEVs") already exist in all vehicle classes and segments. The time for PHEVs to play a bridging role has all but been and gone.

Moreover, PHEVs exhibit significant variability in their environmental performance. Research from Europe suggests that PHEVs deliver poorer environmental benefits in real-world usage due to significantly higher fossil fuel consumption than certified under test procedures, with troubling implications for their projected contributions to California's climate efforts.[7] The reality is that even with increases in their all-electric range, PHEVs will emit tailpipe GHGs and air pollution in many applications and their environmental advantages rely heavily on the charging and driving habits of their individual owners. In the context of a Scoping Plan that projects the state will rely on large-scale carbon dioxide removal ("CDR") and offsets to achieve carbon neutrality in 2045, it would seem prudent to maximize reductions in the state's GHG inventory everywhere possible. Market and technology trends already in evidence should give CARB high confidence that PHEVs, if still a part of the market today, will be an entirely avoidable source of emissions soon. The Scoping Plan should envision a full phase-out of PHEVs from the market in support of the deepest possible emissions reductions from the transportation sector.

## The Proposed Scenario's Target for Medium-Duty ("MD") Vehicle Electrification Should be Supported by Reforms to CARB's ZEV Requirements and Incentive Programs

The Proposed Scenario targets 100 percent ZEV sales in the MD segment by 2036.[8] This is a welcome improvement on both existing and proposed regulatory requirements. The Advanced Clean Trucks ("ACT")

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[3] Zifei Yang, The International Council on Clean Transportation, *Practical Lessons in Vehicle Efficiency Policy: The 10-Year Evolution of France's CO2-Based Bonus-Malus (Feebate) System* (March 12, 2018), available at www.theicct.org/practical-lessons-in-vehicle-efficiency-policy-the-10-year-evolution-of-frances-co2-based-bonus-malus-feebate-system/.

[4] New York State Climate Action Council, *Draft Scoping Plan* (December 30, 2021), 103, available at https://climate.ny.gov/Draft-Scoping-Plan.

[5] California Air Resources Board, *Draft 2022 Scoping Plan Update* (May 10, 2022), 148.

[6] Energy and Environmental Economics, California PATHWAYS Model Outputs (May 2, 2022), spreadsheet available at www.arb.ca.gov/our-work/programs/ab-32-climate-change-scoping-plan/2022-scoping-plan-documents.

[7] Patrick Plotz et al., The International Council on Clean Transportation, *Real-World Usage of Plug-In Hybrid Vehicles in Europe: A 2022 Update on Fuel Consumption, Electric Driving, and CO2 Emissions* (June 8, 2022), available at www.theicct.org/wp-content/uploads/2022/06/real-world-phev-use-jun22-1.pdf.

[8] California Air Resources Board, *Draft 2022 Scoping Plan Update* (May 10, 2022), 149; Energy and Environmental Economics, California PATHWAYS Model Outputs (May 2, 2022), spreadsheet available at www.arb.ca.gov/our-work/programs/ab-32-climate-change-scoping-plan/2022-scoping-plan-documents.

rule requires just 55 percent of Class 2b-3 vehicle sales to be ZEVs by 2035 while the proposed Advanced Clean Fleets regulation would require 100 percent ZEV sales in the medium- and heavy-duty segment by 2040.[9] Given the technology's readiness and the wide array of MD ZEVs already available for sale today, Rivian believes 100 percent MD ZEV sales is entirely achievable by 2036 and strongly supports the Proposed Scenario in this regard. CARB should ensure its regulatory requirements for MD ZEV sales align with the Proposed Scenario.

However, California's ZEV incentive programs could better support the scenario's MD ZEV ambition.

- Guidelines for the Clean Vehicle Rebate Project exclude high-impact vehicles such as Rivian's R1T—an all-electric medium-duty pickup—with a Manufacturer's Suggested Retail Price ("MSRP") exceeding $60,000. (No such MSRP cap exists for hydrogen fuel cell vehicles.)[10] This fails to account for the fact that to displace combustion vehicles with similar attributes, MD ZEVs like the R1T pickup will have larger batteries—representing significant additional cost—to account for payload and towing.
- Fleet interest notwithstanding, the Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project ("HVIP") generally excludes pickups from eligibility and introduces other barriers to MD pickup participation by requiring that vehicles must be "designed exclusively for commercial use."[11] While MD electric delivery vans are eligible for HVIP, CARB currently plans to implement demand-side restrictions in the program, scaling back its impact. Beginning in 2023, fleets greater than 100 vehicles in size will be barred from participation, dropping to 50 vehicles in 2024.

Combined, these rules and restrictions greatly diminish the ability of MD ZEV buyers to receive state support for their purchase. This works counter to CARB's own goals and the Proposed Scenario's targets for the segment. To align the state's incentive programs with the Proposed Scenario, CARB should establish a third vehicle category in CVRP with an appropriately adjusted MSRP cap catering to MD vehicles with fleet applications, and walk back plans to bar medium and large fleets from accessing HVIP funding.

## Strengthening the Low Carbon Fuel Standard ("LCFS") is Crucial

California's LCFS is a proven emissions reduction tool and a powerful enabler of transportation electrification. To date, it has served a key role in the state's portfolio of complementary climate policies. We believe it can and must continue to do so if the state wishes to achieve carbon neutrality. Rivian applauds the Scoping Plan's focus on the need to extend and strengthen the policy in support of the Proposed Scenario.

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[9] 13 CCR §1963.1; California Air Resources Board, Advanced Clean Fleets Regulation Proposed Draft Regulation Language: 2040 100 Percent ZEV Sales Requirement (May 2, 2022), available at www.arb.ca.gov/sites/default/files/2022-04/220502acfdraft100zevsales_ADA.pdf.

[10] California Air Resources Board, *Implementation Manual for the Clean Vehicle Rebate Project (CVRP)* (February 24, 2022), available at: www.cleanvehiclerebate.org/sites/default/files/docs/nav/transportation/cvrp/documents/CVRP-Implementation-Manual.pdf.

[11] California HVIP, "About HVIP: FAQs for HVIP's March 2022 Re-Opening: Procedures and Changes Since Last Year," available at: www.californiahvip.org/about/#FAQ; California Air Resources Board, *Implementation Manual for the Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project (HVIP)* (March 15, 2022), available at www.californiahvip.org/wp-content/uploads/2022/03/HVIP-FY21-22-Implementation-Manual-03.15.22.pdf.

Rivian strongly supports the Plan's call to launch a "public process focused on options to increase the stringency and scope of the LCFS." Among other things, staff recommend an evaluation of more stringent pre-2030 carbon intensity ("CI") targets, consideration of additional post-2030 targets, and providing for capacity-based credit pathways for MHD DC fast-charging infrastructure.[12] Rivian is supportive of these concepts and believes they would enhance the contribution of the LCFS to achieving California's climate targets. Here we align ourselves with comments submitted in this matter by a coalition of stakeholders (Bridge to Renewables, Audi of America, Rivian, and Tesla) calling specifically for more stringent pre-2030 CI targets beginning in 2024, and clear communication of an intention to promulgate regulations in the future that achieve a CI reduction of 80 percent to 100 percent by 2045, consistent with goals to achieve carbon neutrality.

Also outlined in those joint comments is our view that CARB should use this opportunity to reconsider the provisions governing base credit generation for residential EV charging. Maximizing GHG reductions from the vehicle fleet requires both the sale and utilization of EVs to ensure maximal displacement of fossil fuels. The LCFS program contributes to this objective uniquely in that credit generation stems from alternative fuel use: EVs that drive the most will charge the most and will generate the most credits. EV manufacturers are a critical piece of this value chain, investing billions of dollars in developing and selling compelling products that will meet consumer needs and supplant fossil fuel-driven alternatives.

Despite this important role, current program rules only allow for vehicle manufacturers to earn incremental credits on residential charging—a small and shrinking portion of the credit pool. Automakers cannot currently participate in the generation of far more lucrative base credits. This does not appropriately reflect the relative contributions of all the stakeholders involved in the transition to EVs, nor the reality that each stakeholder has unique strengths in reinvesting meaningful credit revenue. While utilities, for example, might be well positioned to make impactful investments in grid infrastructure, automakers are best placed to invest in vehicle technology and growing the consumer-facing market. CARB should establish a structure that allows for EV manufacturers to share in base residential credit generation, incentivizing additional investments in the California EV market that could go above and beyond what is required under the ZEV mandate. This is an exciting opportunity to create a more inclusive program that better supports the goals of the LCFS and California's broader climate efforts.

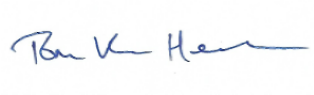
## Conclusion

Rivian's mission to Keep the World Adventurous Forever is made manifest in our commitment to the environment and addressing climate change. In our efforts to deliver on California's climate goals, we should all act with urgency. Rivian welcomes the Proposed Scenario and generally supports the actions identified to achieve the Scenario's transportation sector outcomes, including a strengthening of the LCFS program. But we also believe the draft Plan has only underscored the need to think again about the role of PHEVs in California's transportation future, as well as the need for more robust incentives to support both LD and MD ZEV sales.

Thank you to staff for the hard work that has gone into the draft Scoping Plan. Please contact me with any questions about these comments and we look forward to the next steps in the Plan's development.

[12] California Air Resources Board, *Draft 2022 Scoping Plan Update* (May 10, 2022), 154.

Sincerely,



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