



July 26, 2024

California Air Resources Board  
1001 I Street  
Sacramento, CA 95814

SUBMITTED ELECTRONICALLY AT: <https://ww2.arb.ca.gov/public-comments/comment-log-advanced-clean-cars-ii-amendments-june-workshop>

**Re: June 26, 2024, Public Workshop on Proposed Amendments to the Advanced Clean Cars II (“ACCII”) Regulation**

To Anna Scodel,

Rivian Automotive, LLC, (“Rivian”) participated in the June 26, 2024, workshop on proposed amendments to the ACCII regulation. We welcome the discussions initiated by the workshop and appreciate this opportunity to submit feedback on the presentation. Our comments below outline key questions and concerns raised by the staff’s proposal to move toward an ICE-only GHG standard beginning in MY2030. We also offer feedback on air conditioning credits and proposed updates to the environmental performance label. With respect to the charging interoperability standards, more discussion is needed to align on the implementation details of conformance testing within the target timeline for this rulemaking. Finally, we request urge CARB to use this rulemaking to amend the existing requirements for MY26 ZEVs to supply a convenience charging cord to all customers regardless of need or interest and to use a CCS inlet on vehicles or provide an adaptor.

## About Rivian

Founded in 2009, Rivian is an independent U.S. company headquartered in California. With over 16,000 employees across the globe, 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 (“SUVs”), and commercial vans. Key to the success



of our mission, these vehicles will displace some of the most polluting conventional vehicles on the road today.

Rivian brought the first modern electric pickup to market in 2021 when we launched the R1T from our manufacturing facility in Normal, Illinois, followed shortly thereafter by the R1S SUV and the EDV commercial van for Amazon. The R1T and R1S—both medium-duty passenger vehicles (“MDPVs”)—provide all-electric options in segments where added utility is a necessity. The R1T has an EPA-certified range of up to 410 miles. The R1S is certified at up to 400 miles. The truck also features 11,000lbs of towing capacity, while the R1S is a seven-passenger full-sized SUV. Both are well-equipped for off-roading in a range of climates. Separately, our Class 2b and 3 commercial vans eliminate tailpipe emissions from last-mile delivery. Rivian is committed to producing 100,000 vans for our launch customer, Amazon, with more than 15,000 already in service in 800+ U.S. cities. The van is now also available for purchase by other fleet customers beyond Amazon and is eligible for HVIP support. Beyond our vehicle lineup, Rivian is also building a network of DC fast chargers across the country known as the Rivian Adventure Network (“RAN”). More than 16 RAN sites are already up and running in California alone.

## Proposed Changes to the Greenhouse Gas (“GHG”) Standard

At the workshop, the staff proposed to revise the GHG standard beginning in MY2030, excluding EVs and the eVMT portion of PHEV operation from the fleet average. This would create an “ICE-only” standard that would fundamentally depart from existing practice in GHG regulation. Moreover, we do not believe it would result in additional benefits relative to an appropriately designed and stringent standard inclusive of ZEVs. In fact, an ICE-only standard raises concerns.

- **Abandons a proven approach to emissions reductions.** Battery electric vehicle propulsion as used in ZEVs is the best available technology for cutting vehicle pollution. Not only do ZEVs reduce both tank-to-wheel and well-to-wheel emissions far more than any ICE vehicle, but—unlike ICEs—



their emissions profile will improve over time as the electricity grid continues to decarbonize. To date, the design of the GHG standard has purposefully and strongly incentivized automakers to develop and sell ZEVs as the best available path to cutting emissions. Moreover, consideration of ZEVs allows the regulatory agency to set maximum feasible GHG emissions limits. CARB's proposal, however, would upend this proven approach. Automakers who moved early and decisively toward ZEVs would realize dramatically reduced regulatory benefits for doing so—or even a discriminatory penalty in the case of all-ZEV manufacturers, who will be 'rewarded' for their investments and ambition by being selectively excluded from the GHG credit market. Perhaps most importantly, CARB would no longer be able to rely on ZEVs in determining the stringency of the GHG standard, a departure from the federal standards. We believe this could raise questions about the permissibility of the standard under the federal Clean Air Act and respectfully encourage the staff to address this concern.

- **Fails to assuredly backstop the ZEV sales requirement.** As Rivian argued in our prior comment letter, the ongoing risk of litigation and unpredictable judicial rulings means that a 'belt-and-suspenders' approach to climate policy has never been so prudent. Rivian is concerned about the possibility—even if seemingly remote—that a future judicial ruling could revoke California's waiver for the ZEV mandate, specifically, while leaving the LEV/GHG program intact. Should future federal regulatory action and litigation threaten the state's ZEV program, a robust and technology-neutral GHG regulation that parallels the ZEV standard could serve as a crucial fallback policy for achieving the state's statutory emissions reduction goals and ZEV deployment targets.
- **Does not encourage ZEV sales in LEV-only Section 177 states.** Under an ICE-only GHG requirement, automakers would realize no regulatory benefit from selling ZEVs in a state enforcing the LEV and GHG standards without the companion ZEV mandate. Currently, the potentially affected states include Pennsylvania and states exiting the ZEV mandate at the conclusion of MY2032. This is a missed opportunity. Under an inclusive standard a



stringent GHG standard would essentially function as a powerful regulatory lever for ZEV sales even absent a ZEV mandate.

We appreciate concerns about the potential for ICEs to regress in GHG performance when averaged with ZEVs. However, emissions ‘backsliding’ is entirely possible under an ICE-only standard. And by the same token, backsliding is not inevitable under a fleet average including ZEVs. In fact, CARB could address this concern by, for example, establishing a sufficiently stringent standard that approaches 0 g/mi (tailpipe) in MY2035 or by requiring automakers to certify vehicles to GHG ‘bins.’ A GHG standard inclusive of ZEVs better protects progress toward a zero-emission future in California and across the Section 177 states.

If CARB elects to move ahead with an ICE-only standard, Rivian requests clarification of the proposed approach for credits carried forward from the pre-MY2030 period. Our current understanding of the proposal is that all-ZEV manufacturers would be barred from trading credits earned prior to MY2030 under the new ICE-only regulation. Put another way, all-ZEV manufacturers would see their GHG credit balances eliminated at the conclusion of MY2029 while CARB would permit manufacturers of mixed fleets to carry forward eligible GHG credits earned by ZEVs. We find that this would introduce needless complexity to the credit market and risks unduly stranding credits earned by just a subset of automakers. Instead, GHG credits earned before MY2030, subject to the conditions the staff proposed, should remain valid and eligible for trading until their normal five-year expiration, regardless of the entity that earned them.

## Air Conditioning (“A/C”) Credits

The workshop introduced a proposal to end A/C efficiency crediting for ZEVs in MY2030, mirroring the direction taken by the U.S. EPA in its federal GHG program. Consistent with our feedback on the federal rule, Rivian does not object to this proposal but we encourage CARB to consider the tradeoffs involved in ending A/C efficiency crediting for ZEVs. Limiting efficiency crediting to ICEs removes an incentive for ZEV manufacturers to use the most efficient cooling systems in their vehicles.



The staff also indicated that they are considering a ZEV-specific A/C leakage standard or requirement for MY2030 and beyond. Rivian currently opposes this concept. If CARB implements an ICE-only GHG standard—excluding ZEVs from the fleet average—they should not specify or enforce a leakage requirement for ZEVs. **Federal regulations already provide credit to incentivize low-leak designs.** This credit is available to ZEVs. There is no clear justification for CARB to set an essentially duplicative standard that would impose an additional compliance burden on ZEV manufacturers separate and apart from a GHG standard. **This is also a matter of consistency in regulatory treatment.** ZEVs should either be included in a vehicle GHG regulation or not. If CARB elects to finalize an ICE-only GHG standard, ZEVs should also be excluded from any leakage requirement.

## Environmental Performance Label Updates

Rivian broadly supports transparent range and consumption metrics for EVs. We believe that updating the environmental performance label for passenger vehicles is a worthy goal.

The overall direction of the staff proposal appears appropriate, and Rivian generally supports the proposed metrics and SAE test procedures. In our experience, highway-speed range and estimated charge times are the kinds of performance indicators EV consumers seek and find helpful. We will note, of course, that a variety of factors—including state of charge, ambient temperature, and variations in charger power—can affect charge rates, in particular. Any updated label should contextualize performance metrics accordingly.

While an updated performance label offers benefits to the general car-buying public, we believe ‘window sticker’ labeling does not necessarily serve a similarly valuable purpose in the medium-duty market: fleet customers are typically well aware of vehicle attributes. In addition, the test procedures currently used and therefore the metrics used for comparison between light and medium duty vehicles are different. Adding metrics to medium duty vehicles that are close to the same metrics as light duty vehicle, but not quite the same, could confuse the



consumer. Therefore, we request additional clarification on the vehicle classes affected by the proposed label changes. Does CARB intend to limit the scope of the proposed label changes to the light- and medium-duty passenger vehicle segments only?

## Charging & Interoperability

While we support the overarching intention of Staff's Charging Interoperability Proposal to improve the charging experience for all EV drivers, significant work with industry will be required to align on the implementation details of conformance testing within the target timelines for this rulemaking. The details around **what** test cases will be used, **how** the test cases will be executed, and **who** the test cases will be executed by remain largely undefined with several, potentially overlapping efforts already in progress throughout the industry. SAE and CharIN have active efforts to address these critical components<sup>1</sup>, while the federally funded EVERest project<sup>2</sup> provides another opportunity to develop conformance test cases in an open-source manner. Given these multiple efforts, we strongly encourage Staff to thoroughly consider all available options and move forward based on the following principles: low implementation cost for industry and CARB, ease of access for a continually expanding set of industry stakeholders, and the ability to update test cases in a timely manner as the industry evolves. In addition, it may be worth Staff's consideration to hold a standalone workshop dedicated to the topic of conformance testing where industry stakeholders can present details on current efforts on this front to further inform the path forward.

Looking forward, we encourage staff to provide written and visual details around how they envision the interoperability conformance testing process will fit into the existing process automakers are required to fulfill to sell vehicles in California. In this vein, and consistent with past practice in other areas, we strongly support the

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<sup>1</sup> As referenced by CARB during the 6/26 workshop, SAE is addressing conformance testing under SAE J2953/3 and CharIN is pursuing the development of test cases for conformance certification and EV declarations of conformity for DIN 70121/2 and ISO 15118-2.

<sup>2</sup> <https://lfenergy.org/projects/everest/>



availability of a vehicle self-certification pathway to meet interoperability conformance requirements.

### *Incorporating the J3400 Standard and Reconsidering the Convenience Cord Requirement*

Lastly, following our previous individual and joint comments submitted after the initial workshop held at the end of 2023, we continue to encourage CARB to:

- (1) **Amend the requirement that all vehicles manufactured on or after MY 2026 must be equipped with a CCS Direct Current (DC) inlet or to provide a CCS adapter.**<sup>3</sup> The industry-wide adoption of SAE J3400 NACS is well underway and should be acknowledged by amending Sec. 1962.3 under ACCII to enable eligibility for J3400 and remove the requirement that adapters must be provided. Going forward, adapters should be optional add-ons customers can select based on their preferences and needs.
- (2) **Remove the requirement for the default inclusion of a convenience cord in all vehicles.** The large majority of Rivian customers never use the convenience cord currently supplied with our vehicles and there is no guarantee that the cord will remain with any given vehicle when it is sold on the used market. Even if there were, a convenience cord does not obviate the need for an available outlet or on-site electrical work to ensure safety. Rivian is also concerned about the sustainability implications of a requirement to supply an underutilized convenience cord and the potential downstream waste impacts.

A better approach would be to require that all automakers provide customers of passenger cars and light trucks with the *option* to include a convenience cord at the point of vehicle sale. CARB should completely exempt medium-duty ZEVs from the requirement when manufacturers optionally certify them to the requirements of ACCII.

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<sup>3</sup> 13 CCR §1962.3.



We believe CARB could implement these changes with edits to the existing regulatory text like those suggested below.

- 13 CCR 1962.3(a):

*Applicability.* This section applies to:

- (1) all battery electric vehicles, plug-in hybrid electric vehicles, range extended battery electric vehicles, except for model year 2006 through 2013 and 2026 and subsequent model year neighborhood electric vehicles, that are certified as zero emission vehicles under California Code of Regulations (CCR), title 13, sections 1962.1 and 1962.2 and associated test procedures; and
- (2) 2026 and subsequent model year zero-emission vehicles and plug-in hybrid electric vehicles certified for sale in California under CCR, title 13, section 1962.4, **except zero-emission medium-duty vehicles produced and delivered for sale in California that the manufacturer optionally chooses to certify to the provisions of that section.**

- 13 CCR 1962.3(c)(3):

*Charging Cord.* Beginning in the 2026 model year, **a manufacturer must offer with each vehicle** ~~must be supplied with~~ a charging cord that meets the following specifications:

- (A) Minimum of 20 feet in length.
- (B) (B) Dual amperage capability compatible with AC Level 1 and Level 2 charging:
  1. AC Level 1 minimum amperage capability shall be 12 amps.
  2. AC Level 2 minimum amperage capability shall be 24 amps or sufficient power to enable charging from a state of





discharge to a full charge in less than 4 hours, whichever is lower.

3. The cord shall be configurable by the user, without the use of tools, to facilitate a plug connection for Level 1 and Level 2 charging.

- 13 CCR 1962.4(i)(7)(B):

Meet the requirements for light-duty ZEVs in subsection (d) of this regulation, **except those requirements specified in CCR, title 13, section 1962.3;**

We respectfully request that staff include further details on their current thinking, including questions and concerns on both topics, during the next workshop to help industry stakeholders provide relevant context and input as the update is considered.

## Conclusion

Rivian greatly appreciates the hard work of staff in developing the proposals shared at the latest workshop. We are pleased to provide feedback and comment on the proposals and would be happy to discuss any of the issues raised in this letter in more detail. Please do not hesitate to reach out to our team with questions. We look forward to continued engagement in this rulemaking.

Sincerely,

Chris Nevers  
Rivian Automotive, LLC