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National Highway Traffic Safety Administration
Docket Management Facility
U.S. Department of Transportation
West Building, Ground Floor, Rm. W12-140
1200 New Jersey Avenue SE
Washington, DC 20590-0001

SUBMITTED ELECTRONICALLY AT: www.regulations.gov

Re: Notice of Intent to Prepare an Environmental Impact Statement for Model Years 2027 and Beyond Corporate Average Fuel Economy Standards and Model Years 2029 and Beyond Heavy-Duty Pickup Trucks and Vans Vehicle Fuel Efficiency Improvement Program Standards; Docket No. NHTSA-2022-0075

Rivian Automotive, LLC ("Rivian") appreciates the opportunity to comment on the Notice of Intent ("NOI") to prepare an environmental impact statement for Corporate Average Fuel Economy ("CAFE") Standards for model year ("MY") 2027 and beyond, as well as heavy-duty ("HD") pickup truck and van vehicle fuel efficiency ("FE") improvement program standards for MYs 2029 and beyond. As medium-duty passenger vehicles, Rivian's R1T and R1S models are regulated under the CAFE program. Rivian's commercial van offering is subject to the heavy-duty standards.

In this moment of heightened concern for American energy security and climate change, the need for a federal policy designed to improve energy efficiency and reduce reliance on petroleum in the American transportation system only continues to grow. Rivian believes that, with a fresh approach to setting standards that aims to reflect electrification trends in the industry, the CAFE program can and should continue to play a central role alongside federal greenhouse gas ("GHG") emissions standards, in driving energy efficiency, fuel savings, and a reduced environmental impact from the passenger vehicle fleet. In assessing feasibility for the HD FE program, NHTSA is not necessarily subject to the same statutory constraints as CAFE. The agency should fully account for electrification and the FE benefits of electric vehicles ("EVs") in the HD vehicle market when setting those standards and consider recently enacted federal legislation (the Inflation Reduction Act) meant to incentivize EV adoption.

Keep 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. Rivian's mission is to Keep the World Adventurous Forever and our 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 and fuel-inefficient 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. 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.

NHTSA Should Ensure the Continued Relevance and Impact of its FE Programs with a New Approach to Setting Standards

In the NOI, NHTSA identifies the standard's attributes and form as one set of considerations in establishing the alternatives in the future proposal. Specifically, NHTSA "seeks comment on the attribute used to set CAFE and FE standards," including "possible other attributes."[1] Rivian welcomes NHTSA's deliberations and supports the agency exploring options for new or augmented approaches to standard-setting to ensure that CAFE and HD FE standards continue to effectively achieve the goals outlined by Congress.

In establishing the passenger car and truck CAFE program in law, Congress expressly prohibited NHTSA from considering the fuel economy benefits of dedicated alternative fuel vehicles, such as EVs, in determining and setting maximum feasible CAFE standards.[2] Yet, as the agency itself noted in its prior CAFE rulemaking for MYs 2024-2026, market conditions have changed dramatically in recent years. Most manufacturers are now investing heavily in EV technology and selling a rapidly growing number of EVs as their unique benefits become clear to consumers.

Rivian has commented in the past that this poses two interrelated problems. Most fundamentally, the CAFE program risks becoming irrelevant soon if, in setting stringency, it cannot consider a quickly growing and inevitable technological transition among manufacturers. Secondly, absent a change that allows NHTSA to account for EVs in its feasibility analysis, the agency will also struggle to coordinate with and mirror the rules proposed by EPA for GHG emissions, leading to a divergence in the programs that undermines the agency's ability to meet its fuel savings and energy security goals. Given the growth rate in EV sales and the hundreds of billions of dollars of industry investment in electrification, the risk of divergence and an inability for NHTSA to set meaningful levels of stringency appears substantial as we look ahead to the next rulemaking. This calls for a new approach to setting standards that seeks to account for electrification trends as far as possible under NHTSA's statutory authority. Indeed, NHTSA itself sought comment on possible changes to the existing vehicle footprint-based approach in the previous NPRM.[3]

While congressional action to amend the law would be most effective and appropriate, both NHTSA and third-party experts have identified potential paths forward within the confines of the law as currently

[1] Notice of Intent to Prepare an Environmental Impact Statement for Model Years 2027 and Beyond Corporate Average Fuel Economy Standards and Model Years 2029 and Beyond Heavy-Duty Pickup Trucks and Vans Vehicle Fuel Efficiency Improvement Program Standards, 87 Fed. Reg. 157, 50,390 (Aug. 16, 2022).
[2] 49 U.S.C. § 32902(h)(1).
[3] Corporate Average Fuel Economy Standards for Model Years 2024-2026 Passenger Cars and Light Trucks, 86 Fed. Reg. 169, 49,631 (Sep. 3, 2021) (revising 49 C.F.R. Parts 531, 533, 536, and 537).

written. Rivian broadly supports a recommendation proposed by the National Academy of Sciences (NAS) that, absent congressional action, the agency use its existing authority to set standards as a multi-attribute function for light-duty vehicles. Specifically, the NAS suggests that NHTSA consider the market share of ZEVs as a second attribute and define a mathematical function that will increase the standards as the share of ZEVs on-road rises.[4] Alternatively, In the technical support document accompanying the previous rulemaking, NHTSA separately explored the concept of a three-dimensional, multi-attribute function that would establish fuel economy targets as a function of both footprint and the share of work done by electric motors over the test cycle, reflecting the full range of electrification from integrated starter-generators to long-range plug-in hybridization.[5] This approach appears relatively stronger than the NAS proposal given its reliance on vehicle-specific attributes and would seem to fall well within NHTSA's "broad latitude" to define the mathematical function called for by statute, "provided that…the shape of the function reflects legitimate policy goals."[6] Rivian strongly encourages NHTSA to develop and implement an updated function in the upcoming proposal that, as far as possible, accounts for electrification trends in the passenger car and truck market when assessing maximum feasible stringency.

NHTSA should also take into consideration the fuel economy of HD ZEVs when proposing updated HD standards. In Rivian's analysis, NHTSA enjoys greater flexibility in this regard than for passenger cars and trucks. The statutory restriction prohibiting NHTSA from considering the fuel economy of alternative fuel vehicles does not appear to extend to the HD FE program. Statute establishes this limitation specifically with respect to the code subsection "amending passenger automobile standards," and explicitly references the fuel economy of "dedicated automobiles" as the impermissible consideration.[7] Moreover, the subsection within the law pertaining to HD FE standards does not include similar limitations or restrictions.[8] Like the passenger car and truck market, the HD vehicle segment is electrifying rapidly. Manufacturers already offer a growing lineup of zero-emission options, with electrification in the van segment advancing particularly quickly. Rivian's products are testament to the readiness of zero-emission technology to deliver fuel savings and emissions reductions in this important vehicle class. NHTSA can and should use its authority to accelerate the pace of this transition with maximum feasible HD FE standards that fully reflect the contributions of electrification in this market.

NHTSA Should Reconsider Customer Valuation of Fuel Economy Technologies in the Context of Growing EV Sales

Historically, automakers and economists have found that consumers undervalue the monetized lifetime fuel savings that accrue due to vehicle technologies that improve fuel economy. This phenomenon directly affects the cost-benefit assessment of fuel economy standards. Indeed, traditional automakers have long

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[4] National Academy of Sciences, Engineering, and Medicine, *Assessment of Technologies for Improving Light-Duty Vehicle Fuel Economy 2025-2035* (2021), 13-415.

[5] U.S. Department of Transportation, National Highway Traffic Safety Administration, *Technical Support Document: Proposed Rulemaking for Model Years 2024-2026 Light-Duty Vehicle Corporate Average Fuel Economy Standards* (2021), available at https://www.nhtsa.gov/sites/nhtsa.gov/files/2021-08/CAFE-NHTSA-2127-AM34-TSD-Complete-web-tag.pdf.

[6] *Id.*

[7] 49 U.S.C. § 32902. 49 U.S.C. § 32901 defines an automobile as a vehicle rated at less than 10,000 pounds gross vehicle weight.

[8] 49 U.S.C. § 32902(k).

pointed to this consumer tendency as grounds for limiting the stringency of fuel economy standards. If consumers discount the savings generated by fuel economy improvements, it is difficult to justify the costs of the requisite technological innovation and implementation.

In the documentation supporting the NPRM for MYs 2024-2026, NHTSA described potential reasons for the undervaluation including privileging near-term costs over long-term savings, and complex trade-offs involved in vehicle purchasing. The latter reasoning holds that while consumers might value fuel savings, they also value vehicles with greater utility such as towing capacity, size, or other attributes that might work against fuel economy. In the vehicle purchase decision, the preferences for certain attributes other than fuel economy might win out and send a signal to manufacturers to prioritize applications of the same technology that could deliver fuel savings for increases in vehicle power, weight, and so on, instead.[9]

The growing diversity of EVs in the market, including performance pick-ups and SUVs, could complicate this conventional assessment. Fuel economy technology no longer necessarily comes at the expense of vehicle performance or capability. In fact, a new generation of EVs can tow and haul and deliver superior acceleration and handling performance all while saving fuel. In this context, Rivian encourages NHTSA to embark upon a fresh review of consumer behavior and valuation tendencies. How do consumers value a technology that both saves fuel while also delivering a variety of vehicle ownership and performance benefits? What does the rise of a full range of EV offerings, including trucks and SUVs, mean for consumer behavior in the auto market? How does this affect aggregate cost-benefit calculations when evaluating FE standards? Rivian believes this could be a valuable avenue of inquiry as the agency prepares for subsequent rulemakings in an increasingly electrified future.

Conclusion

Rivian looks forward to NHTSA's development of proposals for new standards for MY 2027 and later for passenger cars and trucks and MY 2029 and later for HD vehicles. In advance of rule development, we welcome the agency's deliberations surrounding standard-setting. Rivian urges the development of a new approach to setting passenger vehicle standards that reflect electrification trends in the market as far as possible within the confines of the law. In the HD vehicle category, where NHTSA enjoys greater flexibility, Rivian encourages the agency to develop proposals that reflect the maximum feasible FE improvement in the fleet when accounting for the benefits of HD EVs. We thank the agency again for this opportunity to comment and look forward to the publication of a Notice of Proposed Rulemaking.

Sincerely,

Tom Van Heeke
Senior Policy Advisor
Rivian Automotive, LLC
tvanheeke@rivian.com | 641-888-0035

[9] Corporate Average Fuel Economy Standards for Model Years 2024-2026 Passenger Cars and Light Trucks, 86 Fed. Reg. 169, 49,710-49,711 (Sep. 3, 2021) (revising 49 C.F.R. Parts 531, 533, 536, and 537).