



April 25, 2022

SUBMITTED ELECTRONICALLY TO: www.nescaum.org/files/mhd-zev-input.php

Re: Comments on the *Multi-State Medium- and Heavy-Duty Zero-Emission Vehicle Action Plan: A Policy Framework to Eliminate Harmful Truck and Bus Emissions*

To the Multi-State ZEV Task Force,

Rivian Automotive, LLC, ("Rivian") appreciates the opportunity to comment on the March 10, 2022, draft *Multi-State Medium- and Heavy-Duty Zero-Emission Vehicle Action Plan: A Policy Framework to Eliminate Harmful Truck and Bus Emissions* ("the action plan" or "the draft"). Rivian applauds the ongoing leadership of NESCAUM, and the Multi-State ZEV Task Force organized under its auspices, to accelerate the transition to zero emission medium- and heavy-duty ("MHD ZEV") trucks. Enacting this transition as fully and as quickly as possible is key to achieving both public health and climate goals while building a viable MHD ZEV market.

Rivian believes that in our collective efforts to address air pollution and climate change, we must all act with urgency. The draft plan outlines many important actions, all of which are necessary and that we strongly support, but we believe recommendations for certain actions could be sharpened to reflect their particularly critical role while other policies should be newly considered to kickstart progress toward the task force's goals.

Keeping the World Adventurous Forever

Founded in 2009, Rivian is an independent company headquartered in California. With over 12,000 employees across the globe, it's Rivian's mission 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 passenger 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 MHD for regulatory purposes and satisfy ZEV requirements under 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; both are well-equipped for off-roading in a range of climates. Rivian is also building a network of DC fast and Level 2 chargers across the country.

Rivian Welcomes the Draft Action Plan but Believes It Can Go Further

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 states taking action to achieve GHG emissions and air pollution reductions, including through programs of ambitious regulation and incentivization in the transportation sector, as core to our values and vision for the world.

We are also proud of our collaboration with NESCAUM and greatly appreciate the critical role the organization has played in recent years as a thought leader and catalyst for ZEV policy action. Rivian strongly supported the Multistate MHD ZEV Memorandum of Understanding (“MOU”) that preceded the development of the action plan and continues to advocate for additional states to join the MOU as a foundational step toward further policy action in this area.

Electrification of MHD vehicles is a high-impact policy intervention. Conventional MHD vehicles contribute disproportionately to greenhouse gas (“GHG”) emissions and air pollution. As the action plan itself notes, MHD vehicles are a major and disproportionate contributor to greenhouse gas (“GHG”) emissions and air pollution.¹ Nationwide, MHD vehicles comprise just 10 percent of vehicles on the road but emit 20 percent of all transportation sector GHGs and more than 60 percent of tailpipe nitrogen oxides (“NOx”) and particulate matter (“PM”).² In 2020, approximately 60 percent of those NOx and PM emissions occurred in urban areas.³ That’s why electrifying MHD vehicles has particular benefits for certain neighborhoods and populations.

The action plan’s development demonstrates a seriousness of purpose in addressing these issues. Certainly, the draft’s strategies and recommendations are all necessary components of a comprehensive and successful approach to electrifying the MHD sector. We wish to take this opportunity to reflect on particular aspects of the draft, including calls for even greater ambition in at least two respects.

Urge Priority Adoption of the Advanced Clean Trucks (“ACT”) Rule

The action plan appropriately includes discussion of the central role regulation can play in transitioning the MHD fleet away from fossil fuels. In particular, Rivian appreciates the strategy’s inclusion of the ACT and Advanced Clean Fleets (“ACF”) rules among its list of regulatory actions that play a “critical role...in driving MHD vehicle electrification.” However, we believe the draft could recommend these regulations more forcefully. Rather than encourage states to “consider” these regulations, the action plan should urge states

¹ NESCAUM Multi-State ZEV Task Force, *Multi-State Medium- and Heavy-Duty Zero-Emission Vehicle Action Plan: A Policy Framework to Eliminate Harmful Truck and Bus Emissions (Draft for Public Comment)* (March 10, 2022).

² U.S. Environmental Protection Agency, *Phase 2 Greenhouse Gas and Fuel Economy Standards for Heavy-Duty Trucks Will Cut Carbon Pollution and Improve Fuel Efficiency*, available at www.epa.gov/sites/default/files/2016-10/med-hv-trucks-infograph-2016_0.jpg; Dana Lowell and Jane Culkin, MJ Bradley and Associates, *Medium- and Heavy-Duty Vehicles: Market Structure, Environmental Impact, and EV Readiness* (July 2021), available at www.blogs.edf.org/climate411/files/2021/08/EDFMHDVEVFeasibilityReport22jul21.pdf.

³ Dana Lowell and Jane Culkin, MJ Bradley and Associates, *Medium- and Heavy-Duty Vehicles: Market Structure, Environmental Impact, and EV Readiness* (July 2021), available at www.blogs.edf.org/climate411/files/2021/08/EDFMHDVEVFeasibilityReport22jul21.pdf.

to enact them as top priorities.⁴

Alongside many other stakeholders, we see the ACT rule as a critical precondition for a successful MHD ZEV market. With its strong yet achievable standards, vehicle class-specific sales targets, and provisions for credit trading, the regulation is thoughtfully designed to support industry’s compliance efforts while driving accelerated deployment of ZEVs by manufacturers. This helps industry grow more quickly and cost-effectively to large-scale production—crucial for the long-term success of the industry as well as Colorado’s transportation electrification efforts.

Lead-time requirements mean that even seemingly minor deferrals—for example, a decision to delay a rulemaking until 2023 rather than promulgating standards this calendar year—can substantially delay the regulation’s compliance obligations. Rivian believes that our products and those of many of our peer manufacturers are proof that now is the time for this regulation. Six states have already recognized this reality. The action plan should, too, and call on states to enact these critical regulations as soon as possible.

Include a Clean Fuel Standard (“CFS”) Among the Strategy’s Regulatory Actions

CFS policies, also known as low carbon fuel standards (“LCFS”), are powerful enablers of transportation electrification with compelling benefits for MHD fleets. Rivian is disappointed that the action plan does not include a CFS and believes it would be stronger if it did.

Several states already establish carbon intensity standards for transportation fuels and many more are actively considering legislation to develop their own. This is a testament to the tremendous value clean fuels policies can deliver, and not just in terms of job creation and economic activity as fuel providers innovate and invest in producing and supplying clean fuels to the market. Just as important, they reduce emissions and are responsible for tens of millions of tons of avoided GHGs and co-pollutants in the states where they are already in force, supporting climate goals as well as improving air quality and public health.⁵ Because communities that border major highways and roadways are disproportionately affected by local air pollution caused by vehicles burning fossil fuels, they stand to benefit directly from the use of increasingly clean fuels on those same road networks.

CFS policies can catalyze growth in the MHD ZEV sector and complements mandate-setting regulations like the ACT rule. The credit/deficit-trading mechanism inherent to a CFS benefits ZEV fleet owners. When fleets charge vehicles centrally at a depot or dispatching center and they own the charger, they can capture the credits generated by the charging events. Selling those credits in turn generates revenue with direct benefits for total cost of ownership. In this way, CFS programs inherently incentivize MHD fleet-switching and the accompanying charger installation.

⁴ NESCAUM Multi-State ZEV Task Force, *Multi-State Medium- and Heavy-Duty Zero-Emission Vehicle Action Plan: A Policy Framework to Eliminate Harmful Truck and Bus Emissions (Draft for Public Comment)* (March 10, 2022), 26.

⁵ Oregon Department of Environmental Quality, Oregon Clean Fuels Program, available at www.oregon.gov/deq/ghgp/cfp/Pages/default.aspx; Casey Kelley and Nikita Pavlenko, The International Council on Clean Transportation, *Working Paper 2020-29: Assessing the potential for low-carbon fuel standards as a mode of electric vehicle support* (December 2020), available at theicct.org/sites/default/files/publications/LCFS-and-EVs-dec2020.pdf.

For similar reasons, a CFS also marshals private capital for public charger installations. Charging operators earn the credits generated by dispensing electricity as a transportation fuel. One existing program even allows charging providers to earn credits in proportion to the capacity of public DCFC installations, rather than the use—an additional inducement to make investments in high-cost infrastructure that might struggle to earn a viable market return in the early years of deployment. With the right program design, such a provision could support public DCFC installations that aim to serve MHD vehicles.

In our experience, CFS policy design and implementation—including passage of any necessary legislation and rulemaking—can take time. The draft should identify a CFS as a key regulatory action and urge policymakers to begin the necessary steps for policy development.

Other Considerations

MHD ZEV Purchase Incentives

As the action plan appropriately recognizes, simple and reliable point-of-sale purchase incentives are key to support fleet switching, especially in the MHD sector where upfront purchase price premiums can be substantial. “On again, off again” uncertainty in voucher availability due to funding shortfalls can hamper fleet planning efforts, while programs with cumbersome or restrictive eligibility rules driven by fleet size, vehicle weight class, scrappage, or other considerations, introduce additional barriers and undermine an incentive’s effectiveness.

Rivian also believes cost-effectiveness should be paramount. At a minimum, we believe it is important to focus MHD incentives on truly zero-emission solutions and recommend against making plug-in hybrid or natural gas vehicles eligible for funding. “Pass-through” technologies like these are no longer compelling in today’s rapidly maturing MHD ZEV market. States could also consider creative new approaches to awarding funds. Instead of first-come-first-serve awards, issuing authorities could solicit bids from fleets and score those bids on their projected emission abatement costs, rewarding applicants with particularly cost-effective proposals. The action plan would be stronger if it included recommendations along these lines.

As the draft notes, supporting small-fleet participation is an important goal. Generally, Rivian agrees with the draft’s authors that the right approach to achieving this goal is to set aside or reserve a portion of available funding for such fleets. Unfortunately, some existing MHD incentive programs—namely, California’s Hybrid and Zero-Emission Truck and Bus Voucher Incentive Project—propose instead to bar participation to fleets exceeding a certain size. This is a blunt approach that will undermine MHD ZEV deployment among early adopter fleets and delay the growth of the crucial used vehicle market where many operators purchase their equipment.

Infrastructure Development

Rivian welcomes the draft’s significant attention to questions of MHD ZEV infrastructure development. As the action plan’s varied recommendations in this regard suggest, work toward developing charging networks and supporting fleet investments in infrastructure should begin now and take a comprehensive

view. There are multiple barriers to overcome from funding to permitting to regional coordination.

As states begin acting on the recommendations of the ZEV Task Force, Rivian encourages policymakers to consider the full range of charging use cases, communities, and available technologies. Many MHD ZEVs will be able to charge centrally at depots or dispatching centers, but some public and on-highway charging will also be necessary. To reduce costs and expedite deployment of both fleet-owned depot charging and public facilities, policymakers should encourage and facilitate efforts to streamline local permitting and interconnection processes. Delays in infrastructure installation can largely be attributed to extended timelines for permitting approvals from local authorities and interconnection approvals from utilities. The pace of infrastructure deployment therefore has the potential to be notably accelerated by encouraging strategic efforts to streamline these processes. Project timelines can also be reduced by facilitating close collaboration with utilities to identify sites with available electrical capacity to avoid potentially expensive and time-consuming grid upgrades.

Incentives and public funding also have a role to play. In designing programs that aid the most widespread and accelerated build-out of chargers possible, the state should avoid establishing program requirements with the potential to delay or limit installation volumes. Market-based approaches such as CFS policies (described in more detail above) can also unlock private capital and complement publicly and ratepayer-funded initiatives.

Zero Emission Delivery Zones

While regulations like the ACT are foundational for successful MHD ZEV markets, there are other innovative and creative tools at the disposal of local governments that can drive market growth. Zero emission delivery zones, like the one being piloted in Santa Monica, California, are an exciting example and Rivian commends the action plan's discussion and recommendation of low- and zero-emission zones as a municipal action.⁶ Such zones, especially when targeting MHD delivery vehicles, have the potential not only to deliver meaningful local air quality improvements but also to spur demand for ZEV products, call forth additional investment in charging infrastructure and associated grid upgrades as needed in key geographic areas, and to focus attention on any permitting bottlenecks hindering charger installations in or around the zones. And if implemented widely across many cities, the impact would scale up. Rivian is eager to see more cities establish zero emission truck or delivery zones and is grateful for the action plan's endorsement of the concept.

Conclusion

Achieving a full transition of MHD vehicles to ZEVs is a vital task but one that will require commitments and support from all stakeholders. In developing its action plan, NESCAUM's Multi-State ZEV Task Force has approached this issue holistically and identified a comprehensive portfolio of actions—all of them necessary—to support their vision. Rivian welcomes the draft.

We also recommend that certain aspects of the action plan be enhanced. For example, critical regulatory

⁶ Los Angeles Cleantech Incubator, *Santa Monica Zero Emissions Delivery Zone Pilot*, available at: www.laincubator.org/zedz/.

steps should be taken now and not just considered or explored while another key policy lever—a CFS—needs to be included as another key tool for accelerating transportation electrification.

Please contact me with any questions about these comments. Rivian appreciates the hard work of the Task Force in drafting the action plan and looks forward to its finalization and the implementation work that will follow in states across the country. We stand ready to support those efforts.

Sincerely,

A handwritten signature in blue ink that reads "Tom Van Heeke". The signature is written in a cursive style and is positioned to the left of a vertical line that separates it from the typed name below.

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