



May 9, 2022

Jamie Flynn, Senior Policy Advisor
Northeast States for Coordinated Air Use Management
89 South Street, Suite 602
Boston, MA 02111

Re: Comments on Draft Multi-State Medium- and Heavy-Duty Zero-Emission Vehicle Action Plan

Dear Mr. Flynn:

I am writing on behalf of the World Resources Institute's [Electric School Bus Initiative](#) to commend NESCAUM and the signatory states on the draft Multi-State Medium- and Heavy-Duty Zero-Emission Vehicle Action Plan released on March 10, 2022. We are pleased that the plan contains a robust and holistic set of steps that participating jurisdictions can take to meet the goal of achieving 30% zero-emission medium- and heavy-duty vehicle (MHDV) sales by 2030 and 100% by 2050.

Electrifying the MHDV sector is critically important for reducing greenhouse gas emissions and conventional air pollutants – nationally, the MHDV fleet is responsible for 32% of greenhouse gas emissions and 60% of the nitrogen oxide and particulate matter emissions of the on-road vehicle fleet.

We especially appreciate that the plan contains specific provisions pertaining to electrifying the school bus fleet. The national school bus fleet of over 480,000 buses transports 20 million children daily, but more than 90% of school buses on the road today are powered by diesel, a known carcinogen. The public health and equity imperative for cleaning up this fleet is clear – exhaust from traditional diesel school buses is unsafe, with proven links to [serious physical health issues](#) as well as [cognitive development impacts](#), putting students' health and academic achievement at risk. Cleaning up school buses also supports greater decarbonization across the MHDV sector.

We also commend NESCAUM for recognizing the critical role of technical assistance and proactive engagement from states in supporting school districts during this transition, particularly communities disproportionately impacted by air pollution. The

plan correctly identifies point of purchase vouchers as the optimal approach for incentive programs, and importantly recommends prioritizing fleets operating in environmental justice and disproportionately impacted communities.

Based on our research and direct engagement with stakeholders across the school bus ecosystem, we offer the following recommendations for how to strengthen the action plan to support a more rapid and equitable transition:

Set a More Ambitious School Bus Fleet Electrification Target. The draft action plan includes the call for 100% zero-emission school bus purchases for publicly owned and contracted fleets by no later than 2040. We commend this target; however, this target can and should go much farther. **We encourage you to set a significantly earlier goal for school buses, such that all new purchases are zero-emission by the middle of the decade and all buses are zero-emission by no later than 2040.** This timeline is both achievable and necessary.

Electric school buses are not an emerging technology. There are over [1,800 electric school buses committed to or in service](#) throughout the United States, and they are currently operating in every type of community and geography. Expert [assessments](#) consistently rank electric school buses in the most advanced technology readiness stage. The battery range on *today's* vehicles can reach up to 200 miles, a distance sufficient to serve the vast majority of the country's school bus routes. Moreover, battery technology continues to improve with each successive bus model. Already several states participating in the MOU have enacted transition timelines and goals that are more ambitious than the draft action plan:

- New York just enacted legislation as part of the [FY 2023 budget](#) that will require all new school bus purchases to be zero emission no later than 2027, with the entire fleet required to be zero emission by 2035.
- Connecticut recently passed [SB 4](#) requiring the full school bus fleet to be zero emission by 2040, with an earlier target of 2030 for school buses that provide transportation in environmental justice communities.
- Maryland recently passed [SB 528](#) that requires all new contracts for purchases of school buses to be zero emission beginning in fiscal year 2025, with exceptions for cases in which federal, state, or private funding is insufficient to cover the incremental costs of a zero emission school bus.
- Also of note, in its proposed [Heavy-Duty Engine and Vehicle Standards](#) the U.S. EPA lists school buses along with transit buses, commercial delivery vehicles, and short-haul tractors as expected to have the highest amount of EV sales over the next decade (p.17421) and sets higher emission standards accordingly (p.17426).

Prioritize Adoption of the Advanced Clean Trucks, Advanced Clean Fleets, and Heavy-Duty Omnibus rules. The current language **should be strengthened** to make clear that adopting these rules is an essential priority action states should take immediately in order to meet the goals of the MOU. An equitable transition can only be achieved by rapidly reducing emissions from high-polluting MHDVs, thereby improving air quality in environmental justice and disproportionately impacted communities.

Enhance the Recommendations with Guidance on Use of Repowers and Supporting the Prioritization of Electric School Buses Under the Federal Clean School Bus Program

- **The final action plan should acknowledge the role of repowers in the transition to electric school buses, and specifically recommend that state incentives and programs should also include these vehicles as permissible recipients of funding.** Repowers involve removing a vehicle's engine and replacing it with a new engine or power source such as an electric drive train. Repowers are growing in momentum, and a diesel-to-electric repower typically costs approximately half of the price of a new electric school bus. The draft action plan correctly notes the importance of ensuring that any scrappage requirements do not result in unintended consequences. The current plan highlights some ways that scrappage requirements may unintentionally hinder participation in incentive programs but does not specifically reference the impact of these requirements on repowers. Any scrappage requirements should not require the cutting of frame rails so that buses with additional useful life can be repowered. Repowered buses should also be explicitly authorized as eligible expenditures for all state-administered incentive programs.
- **State funding and state technical assistance in leveraging and deepening the impact of federal funding.** Substantial federal funding programs exist to support medium- and heavy-duty vehicle replacements, including long-standing competitive and formula funding opportunities (e.g. CMAQ and DERA), as well as emerging opportunities from the 2021 Infrastructure Investment and Jobs Act (IIJA). The draft action plan notes some limited recommendations for federal government programs in Appendix A, and has a short call-out box on the IIJA. **We believe more attention and emphasis should be placed in the action plan on pursuing these federal funding opportunities and using these funds to advance MHDV electrification.** State leadership is essential to successfully deploy this funding and achieve the greatest emissions reductions possible. For any programs, such as EPA's Clean School Bus Program, for which multiple fuel types are eligible, NESCAUM members must prioritize electrification projects. States should also commit to only funding electric vehicles with their own state resources, and eliminating any current subsidies for propane and natural gas vehicles.

We commend the signatory states for their leadership on electrifying the medium- and heavy-duty vehicle fleet. The draft action plan contains a strong and diverse set of measures. As we move into the adoption and implementation phase of this plan, additional **guidance from NESCAUM recommending sequencing and priority actions** may help states enact some of these provisions. First among these should be adopting the Advanced Clean Trucks and Heavy-Duty Omnibus rules.

Thank you for your consideration of our feedback, and we thank the NESCAUM staff and member representatives involved in drafting the action plan. We look forward to continued collaboration with your team on school bus electrification issues.

Sincerely,

A handwritten signature in black ink that reads "Susan M. Gander". The signature is written in a cursive style with a large initial 'S'.

Sue Gander
Director, Electric School Bus Initiative
World Resources Institute