

Expanding Electric School Buses in New Jersey



Diesel-burning school buses create a myriad of problems: the exhaust from diesel-burning school buses is harmful to students' physical health, putting them at risk for serious conditions like cancer and asthma; diesel exhaust pollution is linked to negative cognitive development impacts, endangering students' academic progress and learning; diesel buses emit high levels of greenhouse gases like carbon dioxide, directly contributing to climate change; and, the impacts fall disproportionately on communities of color, who already face higher on-road air pollution, and other low-income students, as well as students with disabilities, who are all more likely to ride the bus to school.

On the other hand, electric school buses (ESBs) have zero tailpipe emissions, reducing students' exposure to the dangers of diesel exhaust pollution. They're responsible for significantly lower levels of greenhouse gases than diesel-burning school buses, and EPA research suggests that compared to a new diesel-burning school bus, a new ESB can save an average of \$6,000 every year on operational expenditures, depending on circumstances. ESBs are successfully operating in every part of the country including urban, rural, suburban communities, and in all types of climates throughout the U.S.

Currently, there are roughly two dozen ESBs on the road in the Garden State, with 150 more on order. These zero-emission vehicles represent a small fraction of the more than 21,700 registered school buses in New Jersey, over 99% of which run on fossil fuels. The effort to get ESBs on New Jersey roads was spearheaded by 2022 legislation, which led to the kick-off of a NJDEP annual \$15 grant program to local school districts.

While often framed as an action to address climate change, the public health benefits of switching to ESBs should not be discounted. A cleaner cabin for school children to ride in that will have a direct impact on their health and reduced pollution in their lungs. A 2019 study conducted by researchers from Georgia State University showed that diesel pollution from school buses had a significant negative impact on children's aerobic capacity and even their academic performance, such as lower test scores. This research linking school performance and diesel fumes was replicated in research published in the *Journal of the*

American Medical Association in March 2024. The study, which looked at more than 1,900 school districts that received funding under the 2012-2016 EPA School Bus Rebate Program, showed that districts that replaced the oldest and highest-polluting buses saw significantly greater improvements in district-average test scores compared with other districts.

Replacing diesel school buses with ESBs may yield up to \$247,600 in climate and health benefits per individual bus, according to a new study by researchers at Harvard T.H. Chan School of Public Health. The researchers found that these benefits were strongest in large cities and among fleets of buses older than 20 years.

Finally, it is important to note that ESBs are one of the safest options for transporting students. Riding a school bus is much safer than driving in a passenger vehicle. Bus fires, including for school buses, accounted for only 1% of all vehicle fires in 2021, none of which involved ESBs.



RECOMMENDATIONS

Ensure funding for the NJ Electric School Bus pilot program for the initial three years

- Continue the annual disbursement of at least \$15 million in funds from the Clean Energy Fund, RGGI or the General Fund with the allotment increased based on demand from school districts
- Commit NJ Department of Environmental Protection (DEP) to providing state funding to build upon the pilot's first \$15 million in grant funding and the anticipated second round of funding in spring 2025 to provide districts with resources, especially given the uncertainty of federal funding
- Include Buy American sourcing and labor provisions to ensure ESBs come from pro-union facilities in the pilot and other future state grants

Allow utilities to include ESB charging infrastructure in regular NJ Board of Public Utilities (BPU) medium and heavy duty filings

- Permit utilities to include ESB charging infrastructure in regular medium and heavy duty filings, as opposed to in the electric vehicle utility filings, as was done in 2020, or letting individual districts negotiate separately
- Require charging infrastructure and "Make Ready" charging costs should be included in the utility rate-making proposal
- Adjust NJBPU policy to account for smart charging considerations such as vehicle to grid and areas of most need

Allow school districts to directly bond for ESBs outside of property tax cap akin to school energy efficiency savings program

- Apply the same framework, which exempts capital investments for energy efficiency projects from the 2% cap, to ESBs
 - ESBs provide similar cost savings for districts and often face the similar constraint of large upfront capital expenses
 - To save money – and kids' lungs – you need to spend money, but, as was the case with energy efficiency projects before the exemption, the tax cap prevents the upfront investment, and therefore should not be applied to bonding for ESBs

Accelerate and expand programs to help local school districts purchase or lease ESBs through government aggregators

- Expand the innovative financing program passed in 2024 that allows organizations the NJ School Board Association to help facilitate government aggregation for ESB procurement through both purchasing and leasing agreements, and permit more school districts to procure ESBs through government aggregators

Issue DEP reports analyzing the rollout of the electric school bus program and convene the interagency task force to look at inspections and training

- Review the approval process for the release of funds to shorten the delay between approved grant requests and money in hand based on the reports and interagency task force suggestions