American Lung Association.
New York

Written Testimony
Joint Legislative Budget Hearing – Environmental Conservation
Tuesday, February 1, 2022

Senate Finance Chair Krueger, Assembly Ways and Means Chair Weinstein, and distinguished members of the New York State Senate Finance and Assembly Ways and Means Committees:

The American Lung Association is the oldest voluntary health organization in the United States. For more than 115 years, the Lung Association has been working to save lives by improving lung health and preventing lung disease through education, advocacy, and research. The Lung Association works on behalf of the 37 million Americans living with lung diseases, including over 2.3 million patients with lung disease in New York.

As you continue your work on the Fiscal Year 2022-2023 budget amid a respiratory pandemic that has taken the lives of more than 64,000 New Yorkers, the prioritization of lung health is more critical than ever before. We appreciate the opportunity to submit written testimony today on the importance of providing the resources necessary to achieve Governor Hochul's goal of one hundred percent electric school buses across New York by 2035.

Electric school buses grant multiple benefits including improved public health and clean air for children and surrounding communities, green jobs, and climate change benefits through decarbonization. Diesel school buses are the predominant fuel type sold today and each diesel school bus sold this year may remain in operation for as many as 15 years, locking in a technology that is bad for air quality, public health, and the climate. The equitable deployment of electric school buses throughout New York State is essential to improve public health, advance health equity, and further Governor Hochul's ambitious efforts to reduce harmful emissions from the transportation sector.

New York stands to benefit from electrifying school buses in several ways:

- There are over 50,000 buses[1], about 10% of the U.S. school bus fleet, operated in New York.
- Children that rely on school buses are disproportionately in disadvantaged communities and stand to benefit the most from electrification. Students with disabilities also often have longer school bus rides and, therefore, face more exposure to harmful emissions.

[1] https://www.nyapt.org/about

- New York has ambitious climate goals for reducing medium and heavy-duty vehicle emissions, with a goal of achieving 100% zero-emissions by 2045.[2]
- Cleaner air, especially in high-pollution corridors and communities of color.
- Electric school buses can help support the transition to a cleaner energy grid through pairings with renewable energy and storage.
- As vehicle-to-grid technology advances, electric school buses may be able to improve the resilience of New York's power grid.

The harmful public health, environmental, and educational impacts of our overwhelmingly diesel-based school bus fleet are well-documented. Studies have linked diesel exhaust to lung damage, respiratory illness, cardiovascular disease, and cancer.[3] These lasting negative public health impacts disproportionately affect low-income students, students of color, disabled students, and bus drivers who spend the most time on school buses, amplifying environmental injustices and structural inequalities. Moreover, most school bus depots are housed in disadvantaged communities – especially in New York City – further entrenching the disproportionate impacts of transportation emissions felt in these communities.

In addition to health impacts, school buses and other heavy-duty vehicles are responsible for a substantial percentage of New York's transportation-sector greenhouse gas (GHG) emissions, itself the second-largest contributor to the State's GHG emissions.[4] Due to the nitrogen oxides (NOx) in diesel exhaust, these dirty school buses also contribute to environmental issues including ozone smog.

Riding a diesel school bus can even impact students' academic performance. Asthma, one of the many respiratory diseases caused by diesel exhaust, is the leading cause of school absenteeism.[5] Moreover, the respiratory diseases associated with diesel emissions including asthma are also correlated with decreased academic outcomes – especially for children of color -[6] while exposure to pollutants in diesel exhaust such as fine particulate matter (PM2.5) has been linked to worsened cognitive functioning.

With zero tailpipe emissions and 70% lower lifecycle GHG emissions, electric school buses are the future of student transport, helping to mitigate climate change while promising cleaner air and healthier communities. We hope to see the State further prioritize our children, our workers, and our communities by moving forward with its

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[2] https://www.governor.ny.gov/news/advance-climate-week-2021-governor-hochul-announces-new-actionsmake-new-yorks-transportation

[3] https://www.iarc.who.int/wp-content/uploads/2018/07/pr213_E.pdf.

[4] Kathy Hochul and Basil Seggos, 2021 Statewide Emissions Report Summary Report (New York: New York State Department of Environmental Conservation, December 2021) https://www.dec.ny.gov/docs/administration_pdf/ghgsumrpt21.pdf.

[5] "Asthma," Centers for Disease Control and Prevention, accessed January 7, 2022, https://www.cdc.gov/healthyschools/asthma/index.htm.

[6] Daphne Koinis-Mitchell, Sheryl J. Kopel, Michael L. Farrow, Elizabeth L. McQuaid, and Jack H. Nassau; "Asthma and academic performance in urban children," Annals of Allergy, Asthma, & Immunology 122, no. 5 (March 2019): 471-477, https://doi.org/10.1016/j.anai.2019.02.030.

promise of all new zero-emission school buses by 2027 and a fully zero-emission school bus fleet by 2035 by:

Dedicating at least $300 million in funding over 5 years to electrify school buses across New York State, with at least 50% of these funds benefitting districts in disadvantaged communities.

To achieve the bold, nation-leading promise of 100% zero-emission school buses by 2035, New York must provide the necessary resources to address the biggest barrier to school bus electrification: cost.

While a typical diesel school bus costs between $90,00-$110,000,[7] a comparable electric school bus is over three times as expensive at $330,000-$440,000. Districts and contractors face additional upfront costs associated with the electrical and charging infrastructure necessary to power these buses. To mobilize electric school buses statewide, help ensure that they quickly reach price parity — which, with the right policy incentives in place, could potentially occur as soon as 2027 for total cost of ownership — and continue to demonstrate the State's national leadership on environmental protection, New York should establish a comprehensive school bus electrification program which would:

- Provide at least $300 million in funding – through the general fund, the Environmental Bond Act, and other in-state sources – over 5 years to be administered by the New York State Energy Research and Development Authority (NYSERDA) through up-front grants or vouchers to districts to finance at least the incremental cost of electric school bus purchases and the installation of charging infrastructure.
- Dedicate at least 50% of these funds to buses serving and/or housed in disadvantaged communities as well as other identified environmental justice communities.

With Governor Hochul's announcement to require all zero-emission school buses by 2035, you now can establish New York as the national standard for a zero-emission school bus transition that prioritizes our lung health, the most under-resourced schools, and ensures health equity and justice for disadvantaged communities.

The Lung Association looks forward to discussing more with you and working together to make this historic proposal for our students, our schools, our communities, and our climate a reality.

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[7] Mitul Arora, Dan Welch, and Fred Silver, Electric School Buses Market Study: A Synthesis of Current Technologies, Costs, Demonstrations, and Funding (Pasadena, CA: CALSTART, November 2021), https://calstart.org/wp-content/uploads/2021/12/Electric-School-Bus-Market-Report-2021.pdf.

Sincerely,

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American Lung Association