

January 12 2022

The Honorable Kathy Hochul  
Governor of New York State  
NYS State Capitol Building  
Albany, NY 12224

Dear Governor Hochul,

We represent environmental, transportation, environmental justice, education, labor, community-based organizations, and companies in the electrification sector that are committed to advocating for cleaner, greener transportation for our students. We want to thank you for your bold 2022 State of the State proposal to make New York the first state in the country to mandate that all new school bus purchases be zero-emission by 2027 and that the state's school bus fleet be fully zero-emission by 2035. This nation-leading legislation will help protect students, workers, and communities from the negative health and environmental impacts of dirty school buses. We are committed to supporting you in advocating for this critical legislation to make this commitment to New York students, workers, and families a reality. We additionally hope to see this landmark proposal matched with comprehensive funding, outreach, technical assistance, and labor provisions to ensure that New York's transition to zero-emission school buses is just, equitable, and incentivizes good-paying green jobs across New York.

Every day, over 2 million students in New York rely on the state's 50,000 school buses to get to school on time.<sup>1 2</sup> These buses and the workers who manufacture and operate them provide an essential service, making sure our children have access to education, extracurriculars, and more. Yet the harmful public health, environmental, and educational impacts of our overwhelmingly diesel-based school bus fleet are well-documented. Air pollution inside these buses may be as much as 12 times higher than outside ambient pollution,<sup>3</sup> and studies have linked diesel exhaust to lung damage, respiratory illness, cardiovascular disease, and cancers.<sup>4</sup> These lasting negative public health impacts disproportionately affect low-income students, students of color, disabled

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<sup>1</sup> Ian Elder, Clean Buses for New York Kids: How Electric School Buses Can Create Healthy Communities, Good Jobs, and Clean Rides for Kids in New York (New York, NY: Jobs to Move America, March 2021) [https://jobstomoveamerica.org/wp-content/uploads/2021/03/ESB-ReportFINAL\\_WEB2.pdf](https://jobstomoveamerica.org/wp-content/uploads/2021/03/ESB-ReportFINAL_WEB2.pdf).

<sup>2</sup> "Who is NYAPT?," New York Association for Pupil Transportation, accessed January 7, 2022, <https://www.nyapt.org/about>

<sup>3</sup> Timothy K.M. Beatty and Jay P. Shimshack, "School buses, diesel emissions, and respiratory health," *Journal of Health Economics* 30, no. 5 (2001): 987-999, <https://doi.org/10.1016/j.jhealeco.2011.05.017>.

<sup>4</sup> Adriana Espinoza and Mahathi Vemireddy, *New School Year, Same Dirty Buses: The Case for Electrifying New York's School Buses* (New York, NY: New York League of Conservation Voters, September 24, 2018) [https://nylcvf.org/wp-content/uploads/2018/08/ESB\\_WhitePaper.pdf](https://nylcvf.org/wp-content/uploads/2018/08/ESB_WhitePaper.pdf).

students, and bus drivers who spend the most time on school buses,<sup>5 6</sup> amplifying environmental injustices and structural inequalities. Moreover, the majority of school bus depots are housed in disadvantaged communities – especially in New York City –<sup>7</sup> 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 over one quarter of New York’s transportation-sector greenhouse gas (GHG) emissions,<sup>8</sup> itself the second-largest contributor to the State’s GHG emissions.<sup>9</sup> Due to the NOx in diesel exhaust, these dirty school buses also contribute to environmental issues including acid rain and smog.<sup>10</sup>

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.<sup>11</sup> Moreover, the respiratory diseases associated with diesel emissions including asthma are also correlated with decreased academic outcomes – especially for children of color –<sup>12</sup> while exposure to pollutants in diesel exhaust such as PM2.5 has been linked to worsened cognitive functioning.<sup>13</sup>

With zero tailpipe emissions and 70% lower lifecycle GHG emissions,<sup>14 15</sup> electric school buses (ESBs) 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 promise of all new zero-emission school buses by 2027 and a fully zero-emission school bus fleet by 2035 while also providing

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<sup>5</sup> Leah Lazer, Lydia Freehafer, Jillian Neuberger, and Jesse Worker; “The State of Electric School Bus Adoption in the US,” (World Resources Institute, August 5 2021) <https://www.wri.org/insights/where-electric-school-buses-us>

<sup>6</sup> Shanon Lim, Lois Holliday, Benjamin Barratt, Chris J. Griffiths, and Ian S. Mudway; “Assessing the exposure and hazard of diesel exhaust in professional drivers: a review of the current state of knowledge,” *Air Quality, Atmosphere & Health* 14 (2021): 1681–1695, <https://doi.org/10.1007/s11869-021-01048-0>.

<sup>7</sup> “NYC Neighborhood Air Quality & School Bus Depots,” NYC Clean School Bus Coalition, accessed January 7, 2022, <https://nylcvedfund.maps.arcgis.com/apps/opsdashboard/index.html#/25532b452c77448c8819d475dda14263>.

<sup>8</sup> Espinoza and Vemireddy, *New School Year, Same Dirty Buses*.

<sup>9</sup> 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](https://www.dec.ny.gov/docs/administration_pdf/ghgsumrpt21.pdf)

<sup>10</sup> Espinoza and Vemireddy, *New School Year, Same Dirty Buses*.

<sup>11</sup> “Asthma,” Centers for Disease Control and Prevention, accessed January 7, 2022,

<https://www.cdc.gov/healthyschools/asthma/index.htm>.

<sup>12</sup> 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>.

<sup>13</sup> Avraham Ebenstein, Victor Lavy, and Sefi Roth; “The Long-Run Economic Consequences of High-Stakes Examinations: Evidence from Transitory Variation in Pollution,” *American Economic Journal: Applied Economics* 8, no. 4 (2016): 36–65, <http://dx.doi.org/10.1257/app.20150213>.

<sup>14</sup> Elder, *Clean Buses for New York Kids*.

<sup>15</sup> James Horrox and Matthew Casale, *Electric Buses in America: Lessons from Cities Pioneering Clean Transportation* (Denver, CO: U.S. PIRG Education Fund, October 2019), [https://uspig.org/sites/pirg/files/reports/ElectricBusesInAmerica/US\\_Electric\\_bus\\_scrn.pdf](https://uspig.org/sites/pirg/files/reports/ElectricBusesInAmerica/US_Electric_bus_scrn.pdf).

comprehensive support to schools, school bus contractors, and workers to achieve these ambitious zero-emission goals by:

**Dedicating \$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’s clean school bus legislation must include provisions to address the biggest barrier to school bus electrification: cost.<sup>16</sup> While a typical diesel school bus costs between \$90,00-\$110,000,<sup>17</sup> a comparable electric school bus is over three times as expensive at \$330,000-\$440,000.<sup>18</sup> 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 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
- Explore low-cost direct financing for contractors, or loan guarantee, administered by the Green Bank

Such funding will help get ESBs on the road now to reduce the harmful public health and environmental effects of diesel buses, while also helping build a scale of deployment that will drive down ESB prices and create good, family sustaining jobs in school bus manufacturing.

**Providing outreach and technical assistance to ensure a smooth, equitable transition to a clean school bus transportation future.**

While clean transportation for students is a priority for many parents, teachers, and districts, districts may not be aware of what funding opportunities are out there, or may lack the staffing capacity, expertise, or resources to electrify their school bus fleets on their own – particularly as school systems are coping with the current COVID-19 wave. Additionally, districts and

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<sup>16</sup> Ellen Rosen, “Making Yellow School Buses a Little More Green,” *New York Times*, January 22, 2020, <https://www.nytimes.com/2020/01/22/business/energy-environment/electric-school-buses.html>.

<sup>17</sup> 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>.

<sup>18</sup> IBID

contractors will have to contend with unfamiliar and complex technical issues surrounding electrical infrastructure, charging stations, and power distribution. Electrification requires the early involvement of new stakeholders, like utilities, that districts may not historically engage with when developing plans for student transportation. Finally, as electric school buses are still a novel technology, districts will need ongoing support to ensure their smooth operation.

With all these challenges, even the most motivated and resourced districts may not know where to begin to electrify their school buses. And districts that serve the disadvantaged communities that have traditionally shouldered the greatest burden of environmental damage may often be the least able to take on the burden of figuring out this new and badly-needed technology. In the State of the State, you smartly pointed out the need to bring agencies together to support districts as they undergo their fleet transition. Agencies such as NYSERDA that have direct experience in school bus electrification efforts by administering the New York Truck Voucher Incentive Program,<sup>19</sup> and NYPA, whose EVolveNY program is a one-stop shop for technical assistance on the assessment, engineering, and installation of charging infrastructure for school districts, municipalities, and others are essential to these efforts.<sup>20</sup> We therefore hope to see robust outreach, education, and technical assistance to make New York’s transition to electric school buses as successful and equitable as possible, bridging the gap between school districts, relevant stakeholders including electric utilities and infrastructure providers, and state agencies including NYSERDA, NYPA, the State Education Department, and the Public Service Commission by:

- Providing public education and outreach to districts — especially disadvantaged districts — about the program and funding/support opportunities
- Supporting districts in submitting successful funding applications
- Charging and infrastructure planning technical and financial assistance, including liaising with utilities and EV charging companies as well as accessing fleet electrification rates and rebates
- Ongoing support to help troubleshoot and manage new technologies
- Facilitating data collection so that districts and State officials can learn and incorporate best practices for future school bus electrification efforts

### **Future-proofing the jobs of thousands of school bus workers through workforce retraining and development.**

New York has a robust school bus workforce, composed primarily of drivers (49,430 statewide), school bus attendants or monitors (19,430), technicians (2,100),<sup>21</sup> and school bus distributors in addition to those working in school bus manufacturing. Mechanics and manufacturers in

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<sup>19</sup> “Truck Voucher Incentive Program,” New York State Research and Development Authority, accessed January 7, 2022, <https://www.nyserda.ny.gov/All-Programs/Truck-Voucher-Program>.

<sup>20</sup> “EVolveNY,” New York Power Authority, accessed January 10, 2022, <https://evolveny.nypa.gov/>

<sup>21</sup> Elder, *Clean Buses for New York Kids*.

particular are on the front lines of economic impacts as the school bus industry shifts toward electric, leaving their existing skills and job security vulnerable.

To ensure a Just Transition to a statewide ESB fleet with maximum job retention and an adequately-trained workforce — as well as to guarantee that our children are safely transported from place to place — a school bus electrification program must include job retraining and workforce development for dealers, drivers, technicians, and others who work in the supply and operation of school buses.

**Incentivizing lower prices and the creation of high-quality, good paying jobs by adopting best value procurement for bulk purchasing of electric school buses.**

A well-designed State purchasing program could create strong price competition, while also providing incentives for manufacturers to create high quality jobs in New York and across the nation. In order to implement this program, NYSERDA should conduct competitive solicitations for bulk purchasing agreements with ESB dealers and OEMs using best value procurement. By using a best value framework for school bus purchasing, the State can establish criteria that ensure that the people of New York are getting technology that is safe, effective, and affordable; minimizes environmental impact; and creates good jobs.

With your announcement to require all zero-emission school buses by 2035, you have established New York as the nation’s leader in school bus electrification. You now have the opportunity to establish the national standard for a zero-emission school bus transition that prioritizes the most under-resourced schools, ensures justice for disadvantaged communities, and brings thousands of good-paying jobs.

We look forward to discussing more with you and working together to make this historic proposal for our students, our schools, and our climate a reality.

Sincerely,

Julie Tighe  
President  
**New York League of Conservation Voters**

Jay Mehta  
Northeast Director  
**Jobs to Move America**

Justin Wood  
Director of Policy  
**New York Lawyers for Public Interest**

Jaqi Cohen  
Director of Climate and Equity Policy  
**Tri-State Transportation Campaign**

LJ Portis  
Environmental Policy & Advocacy Coordinator  
**WE ACT for Environmental Justice**

Mari Shopsis  
Executive Director  
**Albany Fund for Education**

Heidi Sickler  
Director of Policy  
**AMPLY Power**

Midge Iorio  
Executive Director  
**Bedford 2030**

Barry Carr  
Executive Director  
**Clean Communities of Central New York**

Krystal Ford  
Climate Smart Coordinator  
**Climate Smart Philipstown**

Alok Disa  
Senior Research & Policy Analyst  
**Earthjustice**

Mary Barber  
Director, State Affairs  
**Environmental Defense Fund**

Uchenna Bright  
Northeast Advocate  
**E2 (Environmental Entrepreneurs)**

Claire L. Barnett  
Director  
**Healthy Schools Network**

Betta Broad  
Campaign Director  
**New Yorkers for Clean Power**

Rich Schrader  
New York Legislative & Policy Director  
**NRDC**

Arlene Way  
Executive Director  
**Arbor Hill Development Corporation**

Kevin George Miller  
Director, Public Policy  
**Chargepoint**

Jeff Vockrodt  
Executive Director  
**Climate Jobs NY**

Tara Vamos  
Steering Committee  
**Code Red Hudson Highlands**

Joy Gardner  
Executive Director  
**Empire Clean Cities, Mission Electric**

Tevin C. S. Grant  
**Evolv-Electric Transportation, Electric  
School Bus Campaign**

Rita D. Ebert  
Executive Director  
**Greater Long Island Clean Cities Coalition**

Anthony Buissereth  
Executive Director  
**North Brooklyn Neighbors**

Kyle Belokopitsky  
Executive Director  
**New York State PTA**

Kate Bartholomew  
Chair Atlantic Chapter  
**Sierra Club**

Richard Steinberg  
Chair of the Zero Emission Bus Committee  
**Sierra Club Niagara Group**

Arif Ullah  
Executive Director  
**South Bronx Unite**

Melissa Everett  
Executive Director  
**Sustainable Hudson Valley**

Joseph Montuori  
President  
**Sustainable Putnam**

Nine Orville  
Executive Director  
**Sustainable Westchester**

Amanda Haught  
Executive Director  
**United We Stand of New York**

Joe Ambrosio  
CEO  
**Unique Electric Solutions**

Robert DeAngelis  
President  
**Yorktown100**

Leslie Stevens  
Steering Committee, Transportation Lead  
**350NYC**

CC:

Kathryn Garcia  
Karen Persichelli Keogh  
Elizabeth Fine  
Micah Lasher  
Lonnie Threatte  
Daniel Fuller  
Rajiv Shah  
Nivardo Lopez  
John O'Leary  
Sean Ewart  
Katie O'Leary  
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