



# Electric school buses for Ohio



Each day in Ohio, almost 860,000 schoolchildren hop on a diesel school bus. Collectively they travel almost 180 million miles per year! That's a lot of time breathing diesel exhaust fumes for our kids and bus drivers.

## Why electric buses

Kids who ride an electric bus get a cleaner, quieter, and healthier commute, while school districts save money on fuel and maintenance. New electric buses are going to be rolling into towns across the state. We want every community to benefit from cleaner air and healthier rides to school.

## Health impacts of diesel exhaust

Diesel exhaust is a toxic mixture of gases and particulates, including 40 known carcinogens. It is linked to numerous negative impacts on children's health and learning. Diesel buses mean:

**Asthma attacks and disproportionate impacts:** Diesel exhaust is a known trigger for asthma attacks and other respiratory inflammation and irritation.

According to the most recent data from the Ohio State Health Assessment, the estimated prevalence of all children in Ohio with current asthma is 8.6%, which is higher than the national prevalence of 7.5%; the prevalence for adults is 9.5%, which is comparable to the rest of the nation. Childhood asthma prevalence rates for all non-white Ohio children with asthma are higher than national averages.

**Poor learning conditions:** Diesel fumes are associated with headaches, nausea, poor concentration, impaired cognitive performance, and behavioral problems, making it difficult for students to learn.

Asthma is a leading cause of school absenteeism. A study by a University of Michigan Public Health epidemiologist estimates that transitioning to clean school buses across the country could result in 14 million fewer absences among bus-riding children per typical school year.



# Benefits of clean electric buses

Electric school buses are good for students and the wider school community as well.

## Quiet and peaceful journey:

Students and drivers enjoy a quiet and smooth ride, due to reduced vibration and noise. Kids arrive at school calmer and ready to start the day, because they don't have to shout to hear each other on the bus.

## Productive learning:

Kids who ride an emissions-free electric bus can benefit from improved cognitive function and fewer school days missed. Plus, electric school buses themselves are opportunities for students to see science, technology, engineering, and math lessons in real time.

## Reduced maintenance and fuel costs:

Compared to diesel buses, electric ones require less maintenance over their lifetime, saving dollars that can be better spent in the classroom. The regenerative braking system results in less wear, and there is no need for engine or exhaust system maintenance. Given the cost of electricity and fuel, electric school buses are more economical to run.

## Healthier environment:

Zero-emission buses mean cleaner air for the whole community. According to a 2020 report from the American Lung Association, transitioning to electric vehicles and a renewable electric grid could save Ohio \$68.5 billion in public health benefits by 2050. We could avoid 635,000 lost work days, 137,000 asthma attacks, and, most importantly, 6,280 premature deaths. Electric buses are a big step toward a cleaner, healthier future.

## Reliable energy grid:

Electric buses can also support Ohio's clean energy goals. Because school buses are on predictable schedules and are parked over 75% of the year, many utilities are partnering with schools to feed power back to the grid when the buses are not transporting students. Innovative Vehicle-To-Grid (V2G) and Vehicle-To-Building (V2B) technology pilot programs are assessing the potential for buses to serve as battery storage and power for school buildings.

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## Our kids deserve the best

All kids deserve a clean, healthy ride to and from school. Ohio has close to 16,000 diesel buses in operation across the state. Many of these buses are eligible for replacement through US EPA's Clean School Bus Program.

Visit [www.epa.gov/cleanschoolbus](http://www.epa.gov/cleanschoolbus) to learn about federal funds for electric school buses. OEPA also has VW funds set aside for electric school buses.

Electric school buses are good for public health, our communities, and a clean transportation system. Ohio can be in the driver's seat when it comes to protecting our children's health from diesel pollution. Let's get rolling towards clean energy now!



## Additional resources:

Electric School Bus Initiative/World Resources Institute  
Clean Fuels Ohio  
Power A Clean Future Ohio  
Moms Clean Air Force Electric School Buses  
Environmental Law & Policy Center Electric School Buses