



REASONS TO ROLL WITH ELECTRIC SCHOOL BUSES



In spite of the considerable benefits of electric school buses, some school districts are hesitant about making the switch from diesel to electric. Embracing new technology can involve growing pains and questions like how to pay for new buses and charging infrastructure. There are many reasons to roll with electric school buses. Read on to learn a few!

Electric school buses will save millions of kids from exposure to dirty diesel bus exhaust, a known human carcinogen that can also trigger asthma attacks and interfere with learning. Tailpipe pollution inside a diesel bus can be even higher than outside, a big concern for students with long commutes as well as bus drivers. Electric buses run on battery power with no tailpipe emissions—on the bus or into surrounding communities.

Electric school buses are built to run in any weather. And they're great in snow.

While electric batteries can deplete more rapidly in cold weather, electric school buses work well in extreme temperatures. Built-in systems maintain their temperature range, enabling batteries to operate safely.

Electric school buses have an advantage over diesel in snowy states: their battery weight is distributed between the front and rear wheels, ideal for driving in the snow. In a diesel bus, the weight is concentrated in the front.

Heating a cold bus can draw from the battery, potentially dropping its range. But regenerative braking, common in electric vehicles, can expand range by capturing energy from braking and feeding it back to the battery. Evolving technology will continue to improve the performance of electric school buses in extreme weather.

Electric school buses cost 60% less to operate and maintain than diesel buses.

This is a huge savings! There are fewer moving parts in electric buses so fewer repairs are needed. Electric buses do cost more than diesel buses up front, but as more buses are sold, prices are expected to go down. Also, there are government and utility plans to help fund the purchase of electric school buses.



Electric school buses can provide backup power in storms.

Charging times vary by bus and charger type, but in general, all electric school buses fully recharge overnight, some in as little as four hours.

Power concerns can be addressed when a school district plans and sets up electric school bus charging infrastructure. Backup power may be something school districts already have in place. In some instances, school buses can also serve as a backup power source for schools during outages.

Electric school buses range as far as your kids need to roam to school.

Electric school buses aren't new, and with each generation that has been manufactured, the buses have grown more advanced. Some electric school buses have a range of up to 210 miles, enough to easily cover the majority of school routes. Well-organized planning of diesel school bus routes has long been a way to reduce heavy pollution and save gallons of gas. Similar routing can help reduce miles traveled if electric school bus range is a concern.

Electric buses are cleaner than propane.

Burning fossil fuels like propane is worse for human health and the Earth than operating electric school buses with zero tailpipe emissions. They're not better financially, either; propane pricing is more volatile than electric, and propane buses cost more over a lifetime than electric versions.

There's enough electricity for electric school buses—and more to come.

Fleets of electric school buses will require charging stations, and grids will need to be able to handle the new demand.

Grid infrastructure is currently being built out, thanks in part to electricity transmission provisions in the Inflation Reduction Act of 2022. Managed charging at lower-demand times of day can help.

Interestingly, all-electric bus fleets may be part of the solution to expand and stabilize our electricity system. As mentioned, electric school buses can be used as backup power generators by providing surplus stored energy back into the grid at times of high demand.

There's money available to cover costs associated with electric school buses.

Federal funding is available for electric school buses, and there may be state incentives too.

Though accessing these funds can be a challenge for some districts, upfront costs of electric school buses are expected to decline as manufacturing scales up and battery costs decrease.

Savings in maintenance and fuel will also add up the longer an electric school bus is in use. Some experts say lifetime costs of electric school buses are about even with diesel buses, but this doesn't take into account electric school buses' considerable environmental and health benefits.



Get Involved:

Gather a group of interested schoolchildren, families, and teachers—the more the merrier—and tell your principal, superintendent, or Board of Education why electric school buses are right for your district. If they have questions, point them in the direction of useful resources to help them make the switch.

Sources: www.momscleanairforce.org/sources-reasons-esb

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