

Electric School Buses

Managing Costs



NYSDOT
Clean Transportation



New York State's requirement for a 100% zero-emission electric school bus (ESB) fleet by 2035 is a significant transition for school districts, requiring thoughtful financial planning. Information on funding, incentives and cost-saving strategies are provided to assist school districts with the transition to electric school buses.

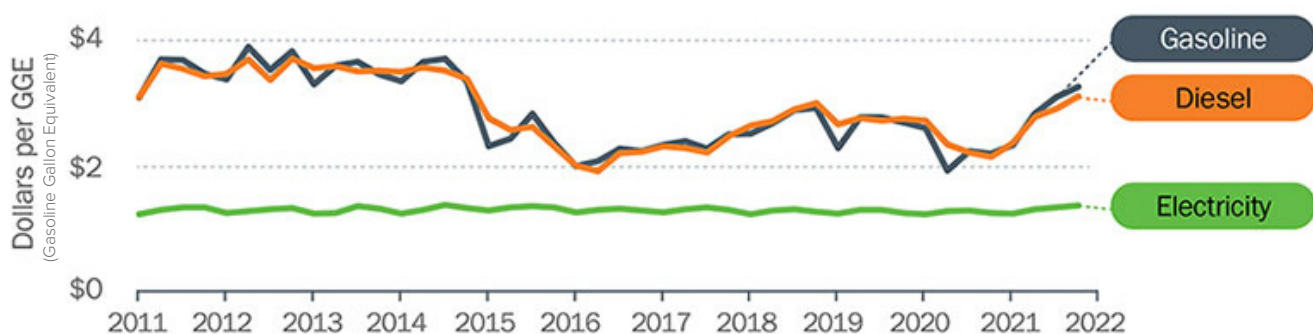
How much does an electric school bus cost compared to a diesel or gasoline bus?

- While the upfront cost of an ESB is currently higher than that of a diesel or gasoline bus, various funding and financing options through programs such as the New York School Bus Incentive Program (NYSBIP) can significantly reduce the cost of ESBs and the charging stations needed to charge them. For example, NYSBIP rebates start at \$114,000/bus for smaller buses, with additional incentives available for districts that retire older vehicles, or incorporate add-ons.
- In addition, operations and maintenance costs for ESBs can be significantly lower than for their diesel or gasoline counterparts.

What are the differences in operations and maintenance costs between ESBs and diesel and gasoline buses?

- ESBs' electric drivetrains have substantially fewer moving parts than internal combustion engines and experience less wear and tear, which can reduce routine maintenance and major repair costs by \$4,000–\$11,000 per bus per year.¹
- Most maintenance is covered under manufacturer warranties, which typically include electric drivetrains and batteries for five years or 100,000 miles. Some warranties extend further.
- ESBs are four times more energy efficient than diesel buses,² and electricity costs are about half that of diesel or gasoline.³ Additionally, electricity prices have seen steadier and more moderate increases compared to the significant fluctuations in diesel and gasoline prices over the past two decades.⁴

Average Retail Fuel Prices in United States



¹ WRI, "Electric School Bus US Market Buyers Guide", p.4

² U.S. Department of Energy Alternative Fuels Data Center. "Flipping the Switch on Electric School Buses: Cost Factors: Module 2"

³ NYC School Bus Umbrella Services. "Electric Vehicle Activity Report."

⁴ U.S. Department of Energy Alternative Fuels Data Center. "Average Retail Fuel Prices in the United States"



What additional expenses should school districts plan for, and what funding options are available?

- While there are costs related to installing ESB charging stations or upgrading electrical systems, programs like New York utilities' Make-Ready program can help cover expenses for electrical work done both on- and off-property, particularly for lower-income school districts.
- Electricity demand charges based on peak electric usage can increase ESB operating costs, depending on the utility's rate structure. However, New York State investor-owned utilities will begin offering alternative EV charging rates with lower or no demand charges in 2025, significantly reducing costs. Operators should work with their electric utility to understand rate structures to avoid paying more than necessary.
- "Smart charging" software can help schedule charging times to reduce demand charges, further lowering expenses.

Are there lower-cost alternatives to purchasing new electric buses?

- Yes, repowered school buses — which are diesel or gasoline buses that have been converted to run on electricity — are an increasingly viable, lower-cost alternative.
- When combined with funding programs and other incentives, repowered buses can offer an even more affordable way to transition to an electric fleet.



Learn More

For more information on Electric School Buses visit nysderda.ny.gov/ride-clean.



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