

ELECTRIC SCHOOL BUSES: GOOD FOR THE ENVIRONMENT AND THE BOTTOM LINE

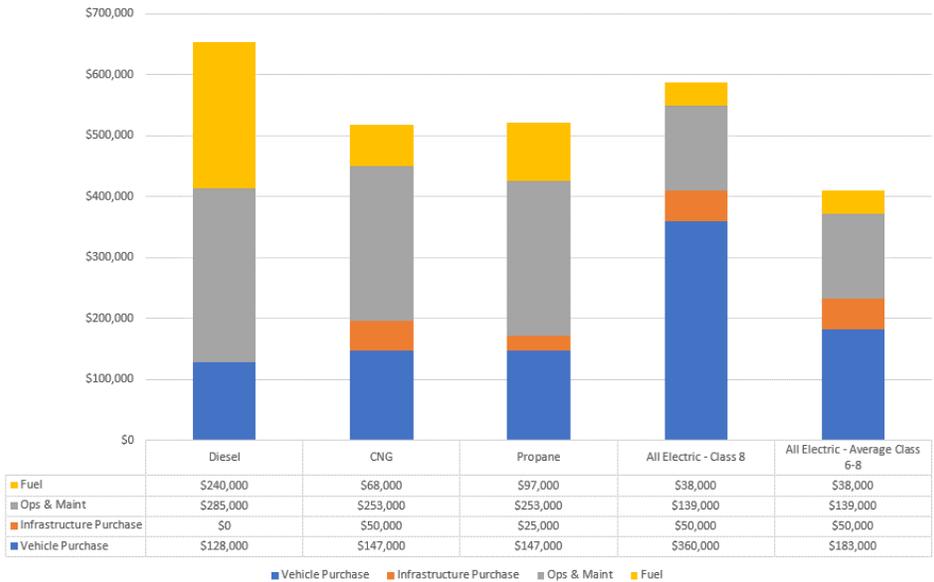


GREEN POWER MOTOR COMPANY

There are approximately 485,000 school buses operating in the U.S. today, and the vast majority of these are powered by fossil fuels. Diesel dominates the current fleet, with a few compressed natural gas and propane-fueled models on the road. Transitioning to all electric school bus fleets would reap significant climate and public health benefits. Electric school buses are cost competitive with dirty alternatives, and although upfront costs are higher for electric versions, operational savings result in a favorable total cost of ownership. Electric buses don't require oil changes, they have fewer moving parts and the cost of electricity to fuel them is cheaper than diesel - all leading to considerable cost savings over the life of an e-bus.

Total Cost of Ownership Comparison for Average (Classes 6, 7 & 8) School Buses Purchased in 2024

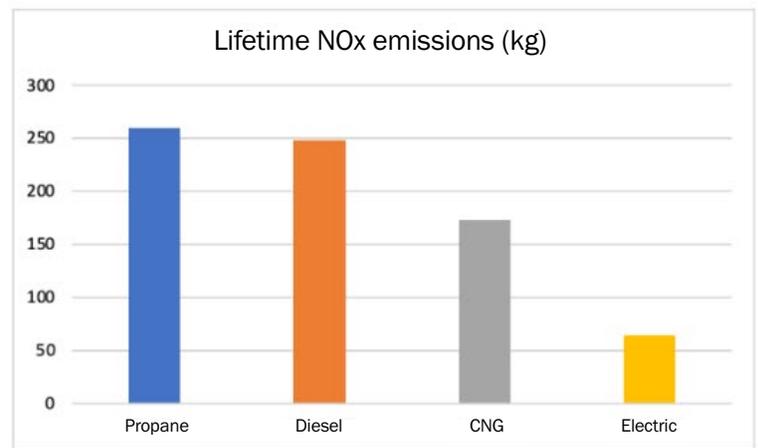
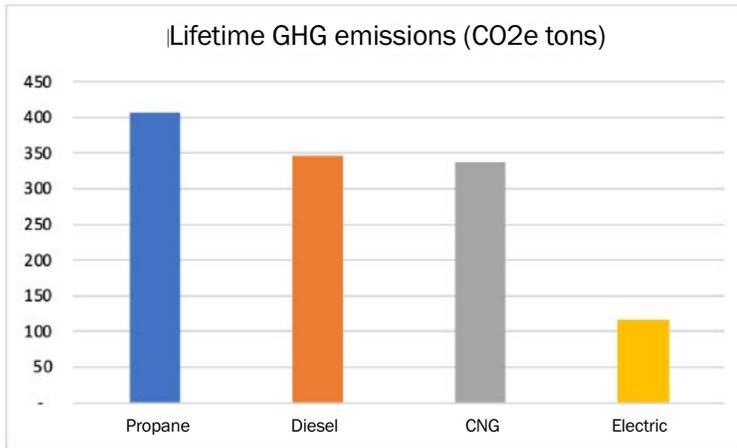
Fuel Price Assumptions:
Diesel = \$5/gal, CNG = \$1.84/DGE, Propane = \$2.84/DGE, Electric = \$0.12/kWh



This informational sheet compares the total cost of ownership among diesel, compressed natural gas (CNG), propane and electric school buses. TCO sums all costs of a vehicle over its lifetime, including purchase price, fueling infrastructure, lifetime fuel & maintenance costs.

ELECTRIC BUSES ARE CHEAPER OVER THEIR LIFETIME

As shown in the chart above, electric school buses have the highest vehicle purchase price and charging station cost. However, electric school buses have the lowest fuel and maintenance costs, which makes up for the upfront cost. Summing these four values provides the total cost of ownership over the lifetime of each vehicle: \$653,000 for diesel, \$518,000 for CNG, \$522,000 for propane, compared to \$583,000 or \$410,000, respectively, for the electric class 8 or averaged across classes 6 through 8. Thanks to the better fuel efficiency (22 miles per diesel gallon equivalent [mpdge] compared to the average fossil fuel-powered school bus of 6 mpdge) as well as lower maintenance and fuel costs, a 2024 model electric school bus is the least expensive option compared to its fossil fuel powered counterparts.



CLEANER AIR

Electric school buses are the only option on the market with zero tailpipe emissions. Fossil fuel-powered school bus exhaust contains greenhouse gas pollution harmful to the environment, like carbon dioxide, as well as particulates and carcinogens that directly harm our youth, who have developing lungs, and other sensitive members of our society, like the elderly or those with preexisting health conditions.

To show how much more harmful fossil fuel-powered buses are, we calculated the lifetime greenhouse gas and nitrogen oxide emissions (NOx) of diesel, propane, CNG and electric school buses. Nitrogen oxide emissions cause air pollution that leads to harmful levels of ground-level ozone and fine particulate matter, as well as acid rain. The average greenhouse gas emissions from fossil-fuel-powered school buses are 363 tons compared to electric school buses' 116 tons over their lifecycle. EV-related emissions are from only electricity power production, not tailpipes. Even with natural gas power plants, EV NOx emissions are 70% below fossil-fueled buses. Electricity is getting cleaner rapidly due to the economic advantages of generation using solar and wind power.

Thanks to better fuel efficiency and lower maintenance costs, a 2024 model electric school bus is less expensive than its fossil fuel-powered counterparts.

EVERY PENNY COUNTS

Over a 12-year lifetime, electric school buses are the most economical and beneficial to community health compared to various fossil fuel-powered school buses. School buses are prime candidates for electrification because more driving means more savings. With a driving average of 180 days per year (5 days of operation per week) at an average of just over 60 miles of daily range, the upfront cost of switching to electric can be recouped in five years. With new federal and state funding sources, savings can be realized even more quickly.



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