

EPA CLEAN SCHOOL BUS PROGRAM

WYOMING COST SAVINGS BENEFITS ANALYSIS

The EPA Clean School Bus program provides an excellent opportunity for the state of Wyoming to achieve significant cost savings over the lifetime of school bus ownership and to greatly improve the health of students through improved air quality.

Program Background: The Bipartisan Infrastructure Law (BIL) provides \$5 billion over five years (FY 22-26) to replace existing school buses with zero-emission and clean school buses.

Zero emission refers to electric school buses. Clean school buses refer to propane and CNG (compressed natural gas) powered school buses.

Notice of Funding Opportunity: The EPA is offering \$500 million in rebates for clean school buses. Applications are due by **January 31st, 2024 at 4:00 ET.**

What kind of funding is available?	
To ensure that this funding reaches high-need communities, EPA will prioritize rural, Tribal, and low-income school districts in the selection process. Prioritized districts will receive more funding per bus, but those not identified as prioritized are still eligible for significant funds. Bus and EV charging infrastructure funds are combined to allow recipients additional flexibility to determine the split between funding for the bus itself and the supporting infrastructure.*	
Funding for buses and infrastructure serving school districts that meet one or more prioritization criteria	Funding for buses and infrastructure serving non-prioritized school districts
<ul style="list-style-type: none"> ■ Electric – Class 7+: Up to \$345,000 per bus + infrastructure ■ Electric – Class 3-6: Up to \$265,000 per bus + infrastructure ■ CNG – Class 7+: Up to \$45,000 per bus ■ CNG – Class 3-6: Up to \$30,000 per bus ■ Propane – Class 7+: Up to \$35,000 per bus ■ Propane – Class 3-6: Up to \$30,000 per bus 	<ul style="list-style-type: none"> ■ Electric – Class 7+: Up to \$200,000 per bus + infrastructure ■ Electric – Class 3-6: Up to \$145,000 per bus + infrastructure ■ CNG – Class 7+: Up to \$30,000 per bus ■ CNG – Class 3-6: Up to \$20,000 per bus ■ Propane – Class 7+: Up to \$25,000 per bus ■ Propane – Class 3-6: Up to \$20,000 per bus

Significant Up Front Cost Savings

The EPA Clean School Bus grant can be stacked with other IRA Tax Incentives and non-federal funds. Using a Type C (class 7+) bus as an example, below shows the entire cost of a clean school bus can be covered by the EPA Rebate, the [IRA Clean Vehicle Tax Credit](#), and the state of [Wyoming VW Funding](#). The average Type C Electric School Bus is ~\$350,000.00, a Type C Propane School Bus ~\$105,000.00 and a Type C CNG School Bus is ~\$140,000.00. The cost of each alternative fuel school bus can be fully covered by grants and rebates, saving the state of Wyoming the full amount allotted per bus replacement, which ranges from ~\$150-\$180,000 per bus. See the table and charts below to fully view savings.

Table 1: Stacked Funding Sources for Purchase of Type C School Buses in *Prioritized* Districts

	Electric	Propane	CNG
EPA Clean School Bus	\$345,000.00	\$35,000.00	\$45,000.00
IRA Clean Vehicle Tax Credit ¹	\$1,500.00		
VW Funding ²	\$3,500.00	\$21,000.00	\$28,500.00
Total Secured Funds	\$350,000.00	\$56,000.00	\$73,500
Total Cost of Vehicle	\$350,000.00	\$105,000.00	\$140,000.00
Remainder Due	\$0	\$49,000.00	\$66,500.00

Table 2: Stacked Funding Sources for Purchase of Type C School Buses in *Non-Prioritized* Districts

	Electric	Propane	CNG
EPA Clean School Bus	\$200,000.00	\$25,000.00	\$30,000.00
IRA Clean Vehicle Tax Credit ¹	\$40,000.00		
VW Funding ²	\$33,000.00	\$24,000.00	\$33,000.00
Total Secured Funds	\$273,000.00	\$49,000	\$63,000
Total Cost of Vehicle	\$350,000.00	\$105,000.00	\$140,000.00
Remainder Due	\$77,000.00	\$56,000.00	\$77,000.00

¹\$40,000 or 30% of the remaining amount of the bus, whatever is less, only available for electric and hydrogen vehicles.

² 30% of the bus cost after EPA Clean School Bus and IRA Clean Vehicle Tax Credit amount, though the VW program could cover 100% of the remaining cost, this is dependent on how the DEQ designs their program.

Total Cost of Ownership

The total cost of ownership (TCO) was calculated using the Argonne National Laboratory AFLEET tool, the industry standard for vehicle cost and emissions savings calculations. The calculations include the initial up-front cost of each vehicle at \$0, \$49,000 and \$66,5000 per electric, propane and CNG school bus, respectively from “remainder due” in Table 1.

Table 3. School Bus Total Cost of Ownership per Fueling Source.

Heavy-Duty School Bus Fleet and Infrastructure	Diesel	Electric	Propane	CNG
Financing	\$0	\$0	\$0	\$0
Depreciation	\$85,086	\$94,742	\$35,893	\$37,112
Fuel	\$158,518	\$49,602	\$101,543	\$90,874
Diesel Exhaust Fluid	\$2,196	\$0	\$0	\$0
Maintenance and Repair	\$391,380	\$250,204	\$274,066	\$391,380
Insurance	\$45,700	\$78,165	\$46,999	\$50,570
License and Registration	\$882	\$882	\$882	\$882
Total Cost of Ownership	\$683,761	\$284,111	\$459,382	\$570,817
Total Lifetime Savings		\$399,650	\$156,007	\$112,944

Fuel Cost Savings

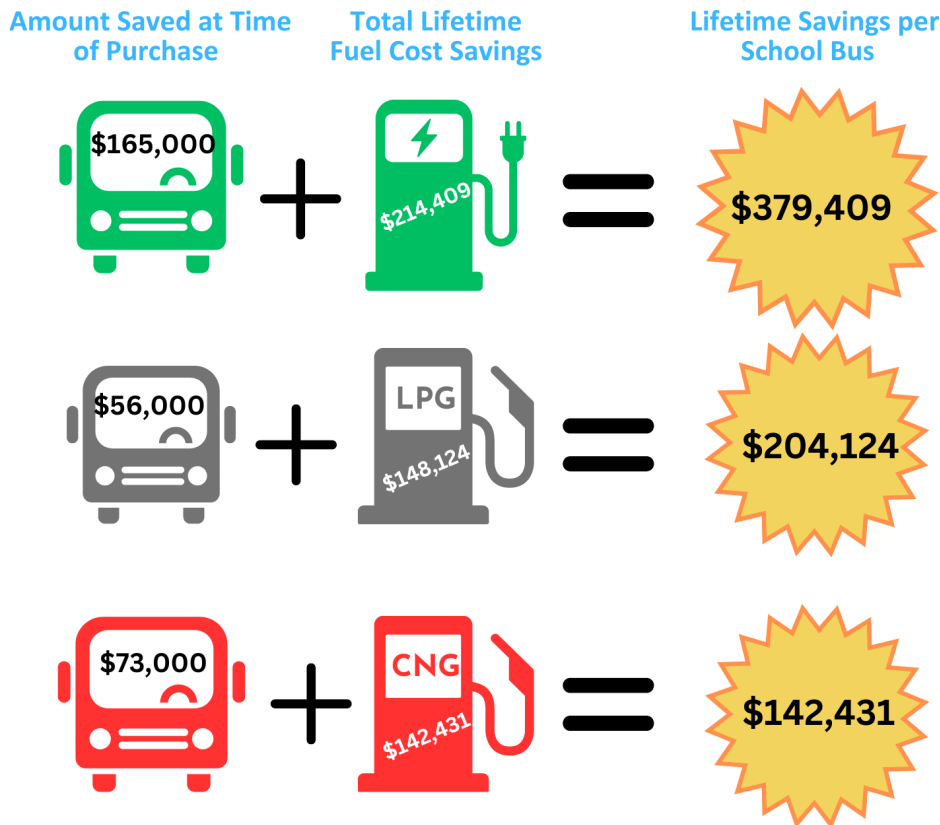
In addition to cost savings at the time of purchase, as noted in the TCO calculation above, and because the state reimburses each school district for fuel costs, the fuel cost savings data is worth noting. A school bus in Wyoming must reach 17 years of age (or a specific mileage) prior to being replaced, so fuel cost savings per vehicle is calculated over a 17 year timeframe. An electric school bus will save an average of \$12,612 in fuel costs per year. This was also calculated using the AFLEET tool using present-day diesel and electricity costs.

Table 4. School Bus Fuel Cost Savings per Fuel Source

	Electric	Propane	CNG
Annual	\$12,612	\$8,713	\$4,055
Lifetime	\$214,409.93	\$148,124.34	\$68,931.68

Total Savings to the state of Wyoming through the EPA Clean School Bus Program with Stacked Funding Sources per School Bus:

Below shows the total savings per school bus by fuel type, by simply considering upfront cost and fuel savings. Time of purchase savings were calculated in relation to the average reimbursement rate of ~\$165,000.00 per school bus. So the amount shown on each bus is \$165,000 minus the “remainder due” from Table 1.



Example Scenario of Fuel Cost Savings to the State of Wyoming for One Round of Awards

Let's look at the following scenario:

During the 2024 funding cycle, three school districts adopt 2 electric buses each, one school district adopts two propane buses and another district adopts one CNG bus.

Table 5. Example savings from one round of awards

	Year 1 Fuel Cost Savings	17-year Lifetime Fuel Cost Savings
6 Electric School Buses	\$75,674.09	\$1,286,459.60
2 Propane School Buses	\$17,426.39	\$296,248.68
1 CNG School Bus	\$4,055	\$68,931.68
Total	\$97,155.29	\$1,651,639.97

Application Process

- The application must be submitted through the EPA's [Clean School Bus rebate portal](#).
- The EPA has listed the information needed for the application on the program's [webpage](#).
- The EPA also offers an [application guidebook](#) to further support a school district's ability and ease to apply.

Wyoming Specific Requirement

In good faith, school districts must look at grant options to supplement the cost of school bus purchases. The Clean School Bus program is an option that could supplement the cost of school bus purchases, this could be added to the flow chart on the

Additional Information

- For reference, in 2022 the EPA awarded a total of \$965 million for ~2,500 clean school bus replacements spread over 400 schools.
- Eligible activities include the **replacement of existing internal-combustion engine (ICE) school buses with electric, propane, or compressed natural gas (CNG) school buses**, as well as the purchase and installation of **electric vehicle supply equipment (EVSE) infrastructure**. (EVSE infrastructure = electric school bus charging stations).
- EPA is prioritizing applications in **high-need, tribal, and rural schools** - over 30 Wyoming school districts ([click here](#)). Non-priority school districts are still eligible to receive major financial assistance.
- Future rounds of funding through this program are expected to be announced.