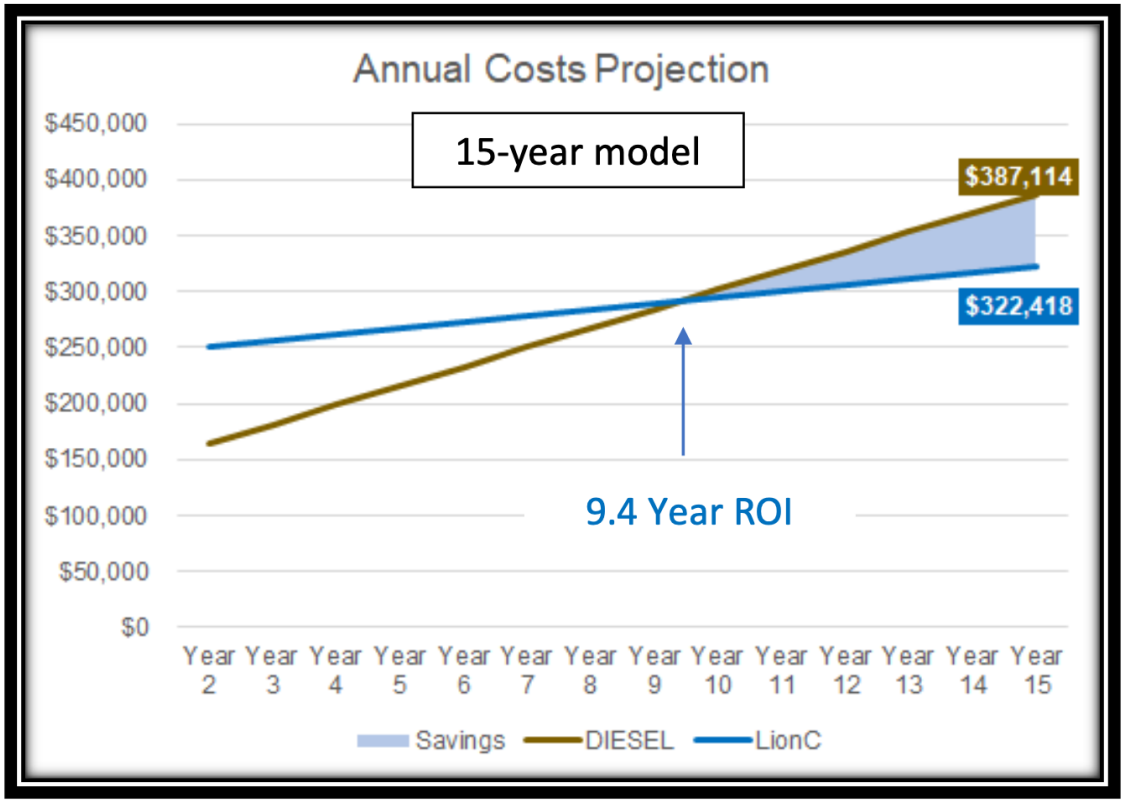
CLEAN SCHOOL BUS PROGRAM

OVERVIEW

The Infrastructure Investment and Jobs Act is a bipartisan bill that passed with support from Idaho's Senators Mike Crapo and Jim Risch in 2022. Included in the bill is $5 billion to be distributed over 5 years to **allow school districts or their contractors to replace existing buses with low- or no-emissions buses**. In year 1 of the Clean School Bus Program, the EPA funded thirteen buses to two school districts in Idaho.

COST SAVINGS

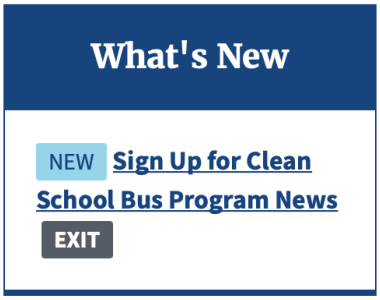
Even without grant funding, the Total Cost of Ownership (TCO) for electric school buses is lower than diesel buses after 9.4 years and is nearly $65k less than a diesel bus on a 15-year model.[1] With the Clean School Bus Program, school districts will see upfront and long term savings.



[1] "Lion Electric TCO Overview"

How to Apply

The Clean School Bus Program is administered by the EPA and will run through 2026. Each year, $1 billion will be distributed to school districts and contractors in an open grant and/or rebate process. Half of the funding is for zero-emissions vehicles like electric school buses. The other half can be used for either zero-emissions buses or low-emissions buses, including CNG, hydrogen, and propane.



The 2023 rebate cycle is open now and closes on January 31st, 2024. The final date to submit questions to cleanschoolbus@epa.gov is January 10th, 2024. Sign up for webinars and program updates from the EPA on the Clean School Bus Program website.

Health and Academic Performance

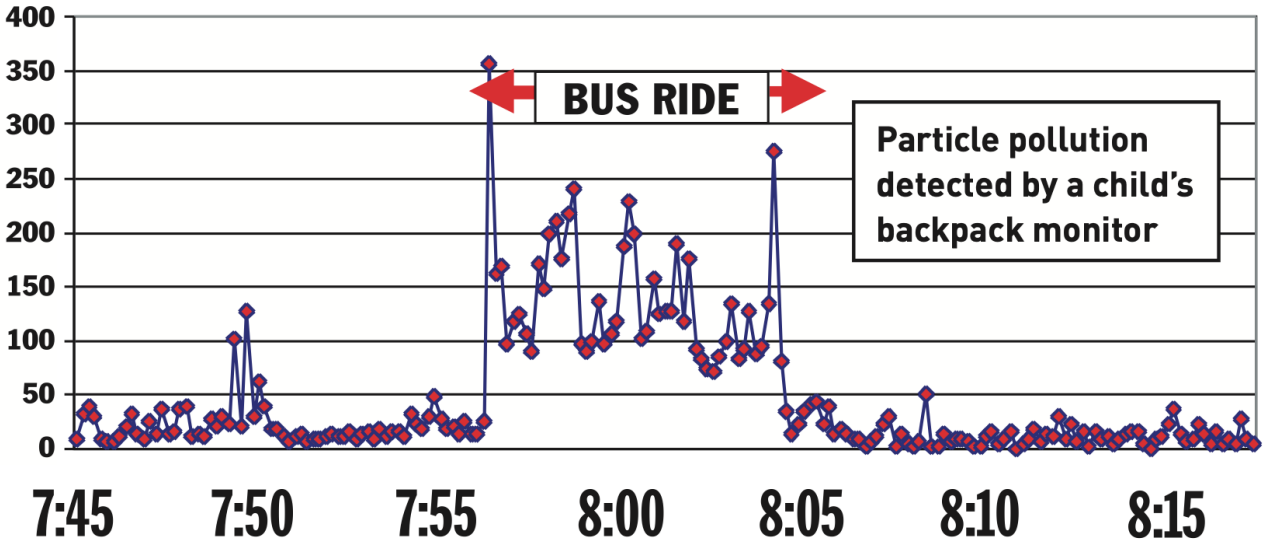
When exposure to emissions decrease, students experience better overall health, perform better academically, and have higher attendance rates.[2] In 2019, Georgia State University Researchers found that efficiency retrofits to lower school bus emissions raised both English and Math scores.[3]

An unexpected benefit of electric buses is the decreased noise levels. According to Brad Redmond of the West Fargo, ND Public Schools' transportation director: "*Learning to drive the bus was easy, but one of the biggest benefits has been how much better the students behave due to the reduction in the bus noise levels*,"[4]

The most significant impact on health is improved air quality. Low emission buses make the air in and around a bus cleaner and safer for students, staff,

[2] Mohai P, Kweon BS, Lee S, Ard K. Air pollution around schools is linked to poorer student health and academic performance. Health Aff (Millwood). 2011 May;30(5):852-62. doi: 10.1377/hlthaff.2011.0077. Epub 2011 May 4. PMID: 21543420.
[3] Wes Austin, Garth Heutel, Daniel Kreisman, "School bus emissions, student health and academic performance," Economics of Education Review,Volume 70,2019,Pages 109-126,
[4] "Four Reasons School Districts Should Leverage an Electric School Bus Fleet." 2021. https://desitecoreprod-cd.azureedge.net/_/media/pdfs/etransenergy/etransenergy-microsite-blog-electric-school-bus.pdf

and drivers. **One study found that concentrations of air pollution were 4 to 12 times higher inside diesel school buses than outside air quality.**[5] Another study found that while on buses, students experienced PM10 levels at levels 5 to 10 times higher than ambient air.[6] The graph of one child's backpack monitor is shown below.



PERFORMANCE & CHARGING

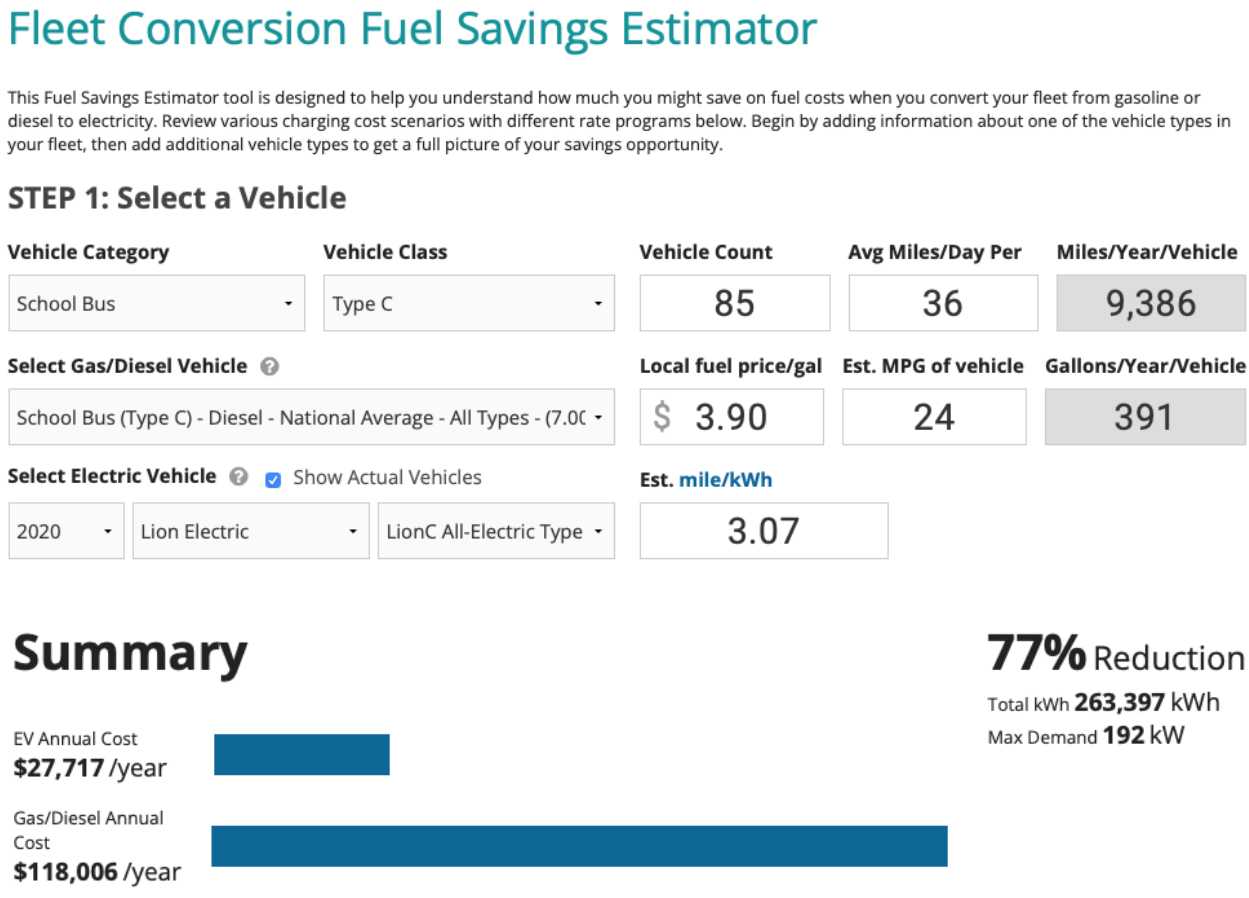
Electric buses are quiet, easy to drive, have as much or more power than standard diesel engines and perform well in extremely hot urban climates like Phoenix, Arizona to very cold and snowy rural communities like Tok, Alaska. More information about the electric buses and their specification guides can be viewed on their websites of manufacturers linked below:

Website:	Specification Guide:
Lion Electric	Lion Electric
Blue Bird	Blue Bird
Thomas Built/Proterra	Thomas Built/Proterra

[5] Timothy K.M. Beatty, Jay P. Shimshack, School buses, diesel emissions, and respiratory health, Journal of Health Economics, Volume 30, Issue 5, 2011
[6] Wargo, J., "Children's Exposure to Diesel Exhaust on School Buses," Environment and Human Health, Inc., 2002; available at www.ehhi.org/reports/diesel.

ESTIMATING YOUR FUEL SAVINGS:

Idaho Power has developed a fleet conversion tool for school districts to understand the fuel savings associated with switching over to electric. The conversion tool can be customized with your fleet size and charging times:



The [conversion tool is available on Idaho Power's website](). Districts in Idaho Power's service territory can get more information by contacting their Idaho Power representative or emailing ev@idahopower.com. Districts outside Idaho Power's service territory will experience different, yet comparable, savings and should also contact their local utility to discuss siting and charging needs.

ELECTRIC BUSES IN IDAHO AND NATIONWIDE

Several transportation services in Idaho are already transitioning to electric buses, including Idaho National Laboratory's shuttle service, Valley Regional Transit, and Mountain Rides. In year one of the Clean School Bus Program, the McCall-Donnelly Joint School District received $3,950,000 for 10 electric school buses and the Genesee Joint District received $1,185,000 for three electric school buses.

As of June 2023, there are 5,982 electric school buses that have been awarded, ordered, delivered or are operating across 914 U.S. school districts or private fleet operators.[7]

MORE INFORMATION

Contact CVI's Sam Miller at sam@cvidaho.org for more information.

[7] Freehafer, L., Lazer, L., & Zepka, B. (2023, September 21). *The state of Electric School Bus Adoption in the US*. World Resources Institute. https://www.wri.org/insights/where-electric-school-buses-us#:~:text=As%20of%20June%202023%2C%20we,districts%20or%20private%20fleet%20operators