



**Electric
School Bus**
INITIATIVE

DEPLOYING ELECTRIC SCHOOL BUSES WITHIN TRIBAL NATIONS & NATIVE COMMUNITIES

ITEP Clean Transportation Roundtable

ALYSSA CURRAN & LYDIA FREEHAFFER

 WORLD RESOURCES INSTITUTE

ABOUT WORLD RESOURCES INSTITUTE

WRI is a global research organization with over 1,900 experts working across 60+ countries



● International Office ● Regional Hub ● Programmatic Office

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WRI'S ELECTRIC SCHOOL BUS INITIATIVE



- Partner with communities, school districts, industry experts, manufacturers, utilities, and policy makers to **transform and electrify** the school bus market
- Together, build unstoppable momentum to **electrify** 480,000 school buses in the U.S. by 2030
- Ensure an **equitable transition** by focusing on underserved communities

EQUITY-CENTERED PROJECT



Cross-cutting Equity Team

Equity staff member serves as point of contact for each pillar team

Supports implementation of equity strategy into pillar and stakeholder-specific activities



Equity Framework

Guides decision-making

Helps operationalize and normalize centering equity

Guides internal commitments project-wide



Equity Community Of Practice

Builds staff understanding of historic and systemic inequities in mobility, transit and energy

Internal learning events, resource bank and facilitated discussion groups

OUR APPROACH: MULTIPLE STAKEHOLDER MODEL

Together with partners, WRI's Electric School Bus Initiative is working in five areas of focus:



Support school districts in accelerating the equitable transition to electric school buses.



Collaborate with manufacturers across the electric school bus supply chain in preparing for an equitable and sustainable transition.



Work with electric utilities to improve interconnection and investments for electric school bus charging infrastructure, including supportive rates and tariffs.



Engaging policymakers to drive policies that grow demand, reduce barriers and increase electric school bus public funding.



Partner with communities pursuing school bus electrification and support with tools and resources.

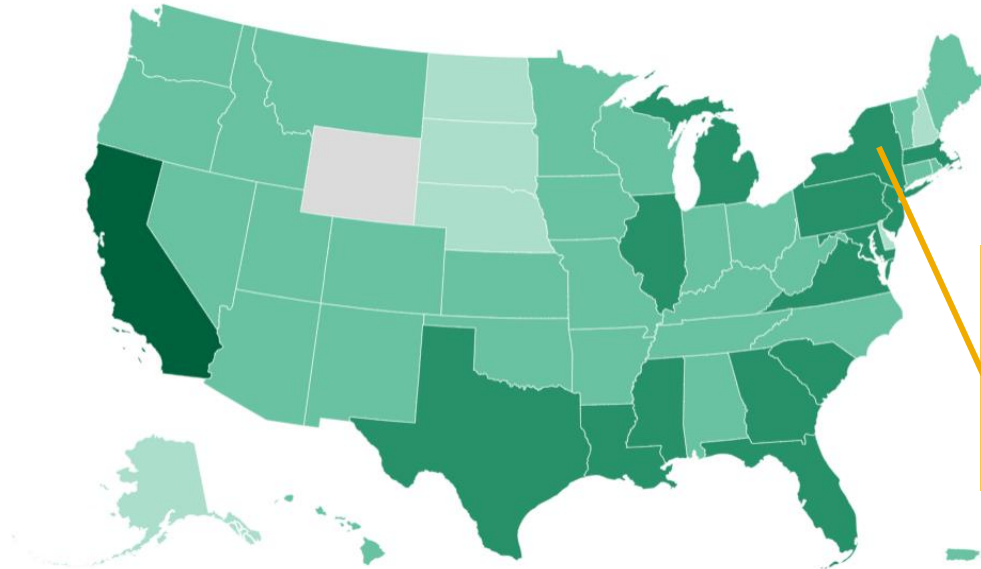
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ELECTRIC SCHOOL BUS ADOPTION

Committed* electric school buses by state

0 1-10 11-100 101-500 501+



- **8,820** ESBs committed
- ESBs are on the road in **48 states**
- ESBs are operating in **urban, rural and suburban** communities

Leading states for commitments:

- California: 2,561 electric school buses
- Illinois: 418 electric school buses
- New York: 409 electric school buses

*awarded, ordered, delivered, or in operation.

Not shown: American Samoa (1 ESB), Guam (25 ESBs), and U.S. Virgin Islands (10 ESBs).

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BY THE NUMBERS – ESBS IN INDIAN COUNTRY

School Type	Awarded	Ordered	Operating	TOTAL
<i>Bureau of Indian Education (BIE) funded schools</i>	27	0	8	35
<i>Public schools receiving impact aid for native students</i>	155	58	86	299
<i>Private or charter language immersion and native cultural schools</i>	2	0	4	6

<https://electricschoolbusinitiative.org/electric-school-bus-data-dashboard>

ESB INITIATIVE DATA DASHBOARD

Electric School Bus Data Dashboard

Explore data and trends on electric school bus adoption and U.S. school buses

2024 / February 20, 2024

About Tools Engage Evidence [Request Library](#)

WiFi Electric School Bus Initiative is critical to transportation and other electric school bus electric school buses.

Most ESBs serve school districts with the most people of color and low-income households

How to read this page:

Each pair of bars shows the difference between how all school buses are distributed and how electric school buses are distributed. The bars labeled "Reference: All school buses" show all the school buses in the country. These buses are grouped into four categories (quartiles) based on their school district's national ranking of percent people of color, percent low-income, and PM2.5 concentration, respectively. For example, the school buses in the top quartile (green) under "Race" serve school districts that are in the top 25% of all U.S. school districts in terms of the percent of their residents that are people of color. Buses in the first quartile (yellow) serve districts with the fewest people of color. The bars labeled "Committed ESBs" follow the same pattern, but instead of showing all school buses in the U.S., they show only committed electric school buses.

Race

Percent of school district residents who identify as non-white and/or Hispanic (Percent people of color)

Category	Reference: All school buses	Committed ESBs
Fourth quartile (highest percent people of color)	17%	31%
Third quartile	30%	64%
Second quartile	42%	11%
First quartile (lowest percent people of color)	12%	5%

Income

Percent of school district households that are low-income (as to have the lowest poverty level)

Category	Reference: All school buses	Committed ESBs
Fourth quartile (highest percent low-income or air pollution)	29%	31%
Third quartile	78%	36%
Second quartile	23%	13%
First quartile (lowest percent low-income or air pollution)	11%	11%

Air Pollution

School district average annual PM2.5 concentration

Category	Reference: All school buses	Committed ESBs
Fourth quartile (highest percent low-income or air pollution)	30%	17%
Third quartile	30%	30%
Second quartile	30%	30%
First quartile (lowest percent low-income or air pollution)	30%	30%

The ESB Initiative defines equity as the guarantee of fair treatment, access, opportunity, and advancement while striving to identify and eliminate barriers that have prevented the full participation of some groups.

Overall, the largest share of ESBs are in the most disadvantaged districts, that have the most people of color, low-income

The Electric School Bus Data Dashboard

Click here to show all committed electric school buses

Click here to show only electric school buses that are on the road

8,765

Electric school buses

1 School

What is a "committed" electric school bus?

"Committed" describes a bus in any of the four stages of adoption: awarded, ordered, delivered or operating. We consider an electric school bus "committed" starting when a school district or fleet operator has been awarded funding to purchase it or makes a formal agreement to purchase it from a manufacturer - not when they have only expressed intent to acquire one. "On the road" describes delivered or operating buses.

Progress toward electrifying all U.S. school buses

1.8%

8,765 Electric school buses

489,100 Total U.S. school buses

This dashboard is updated monthly. Latest update: April 2, 2024

New electric school buses, by year

Year	Number of buses
2018	100
2019	150
2020	200
2021	300
2022	510
2023	1284
2024	3301
2025	3961
2026	8765

Headlines | **State ESB Adoption** | **State Legislation** | **School District ESB Adoption** | **Locale** | **Equity** | **Industry** | **Funding** | **School Bus Fuel Types** | **School Bus Age** | **School District Expenses**

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Electric school buses are committed in nearly all states, on the road in 47

Committed electric school buses, by adoption status

Click on a state to filter

8,765

Total committed ESBs

3,482

Awarded ESBs

1,416

Ordered ESBs

3,867

Delivered or operating ESBs

206,564

Students riding ESBs

Committed electric school buses by state

Number of committed ESBs: 0-10, 11-100, 101-500, 501+

Headlines | **State ESB Adoption** | **State Legislation** | **School District ESB Adoption** | **Locale** | **Equity** | **Industry** | **Funding** | **School Bus Fuel Types** | **School Bus Age** | **School District Expenses**

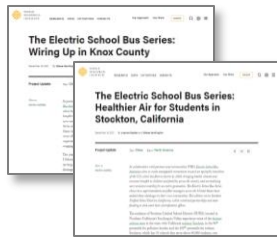
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electricschoolbusinitiative.org/electric-school-bus-data-dashboard

ESB INITIATIVE RESOURCES



Technical assistance & instructional resources for school districts



Case studies sharing key learnings, best practices and practical knowledge



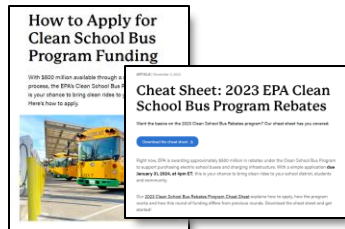
Partner-oriented strategic plans and roadmapping assessments



District-ready informational and promotional materials



Step-by-step guide for school bus electrification



Funding support for EPA Clean School Bus Program and DERA



Electric school bus US Market Study and Buyer's Guide



Electric school bus Request for Proposal (RFP) Template

ESB INITIATIVE RESOURCES

Electric School Bus Calculator

Select the options that best fit your situation and then press "Show Results." Press "Start Over" to run another analysis.

Your Input

School Bus Type: Type C
 State: Alabama

Electric Inputs


Charging Equipment: Electricity Price (kWh) \$0.15
 DDC (150kW) Dual
 DDC (150kW) Dual
 L2 (19.2 kW)
 L2 (19.2 kW) Dual
 L2 (7.7 kW)

Total cost of ownership (TCO) for type C diesel and electric school buses

Bar chart showing TCO for Diesel-bus (~\$414,000) and Electric-bus (~\$530,000).

All About Total Cost of Ownership (TCO) for Electric School Buses

With lower fuel expenses, maintenance costs and recent funding available to offset purchase costs, the total cost of owning an electric school bus can be hundreds of thousands of dollars less than for a diesel-burning bus.



All About Total Cost of Ownership (TCO) for Electric School Buses

Program	Funding	State	Year	Amount	Per applicant	Yes	Unspecified	No	Yes
MassDPW Public Access Charging (PAC) Program	Funding	Massachusetts	2024	\$5,000	per applicant	Yes	Unspecified	No	Yes
EVV Funding Infrastructure Grant for Municipalities	Funding	Massachusetts	2024	\$80,000	per district	Yes	Unspecified	No	Any year
Transportation Identification Loan Program	Financing	Massachusetts	2024	200%	per applicant	Yes	Unspecified	No	Energy
Statewide Economic Development Assistance Program	Funding	Massachusetts	2024	100%	per applicant	Yes	Unspecified	No	Economic
Revenue Coast Insurance Program	Funding	Massachusetts	2024	\$50,000	per applicant	Yes	Unspecified	No	EVs
Rebuilding American Infrastructure with Sustainability and Equity Grants	Funding	Federal	2024	80%	per applicant	Yes	Unspecified	No	20% Any year
South Coast Air Quality Management District's (SCAQMD) Clean Fuels Program	Funding	California	2024	Variable	per applicant	Yes	Unspecified	No	Variable
Plug-In Electric Vehicle (PHEV) and Electric Vehicle Supply Equipment (EVSE) Installation	Grant	State	2024	\$6,000	per charger	Yes	Unspecified	No	20% Any year
Non-Residential Electric Vehicle Supply Equipment (EVSE) Rebate	Grant	State	2024	\$1,000	per port	Yes	Unspecified	No	EVs
Commercial Electric Vehicle (EV) Charging Rebate - Black HUB Energy	Funding	Utility	2024	\$3,000	per port	Yes	Unspecified	No	Any year
Commercial Electric Vehicle (EV) Charging Rebate - Black HUB Energy	Funding	Utility	2024	\$1,000	per port	Yes	Unspecified	No	EVs
MassDPW Alternative and Fuel (AF) Charging Program	Funding	Massachusetts	2024	\$6,000	per district	Yes	Unspecified	No	40% Any year
Rebate Charge - Commercial EV Charging Station Program	Funding	Utility	2024	\$2,500	per charger	Yes	Unspecified	No	EVs
Department Energy Smart Charging Infrastructure Pilot Program	Funding	Utility	2024	Variable	per applicant	Yes	Unspecified	No	Variable

Clearinghouse: Electric School Bus Funding and Financing Opportunities

Looking for funding and financing options for electric school buses? Download our Clearinghouse and start exploring.

[Download the Clearinghouse](#)

Finding information about the many opportunities to access funding and financing for electric school buses can be challenging. That's why the Electric School Bus Initiative has compiled many of the available options in a single file, which contains information regarding type of funding, program eligibility, funding levels, and more.

Download our [Clearinghouse of Electric School Bus Funding and Financing Opportunities](#) today to see programs that you may be interested in.

Heard of opportunities that aren't included in this clearinghouse? Reach out to Aislinn Schryer at Maia@esbinitiative.org

Get started exploring the Clearinghouse [here](#).

Clearinghouse: Electric School Bus Funding and Financing Opportunities

FEDERAL FUNDING OPPORTUNITIES



**EPA Clean
School Bus
Program**



**Tribal Diesel
Emissions
Reduction Act**



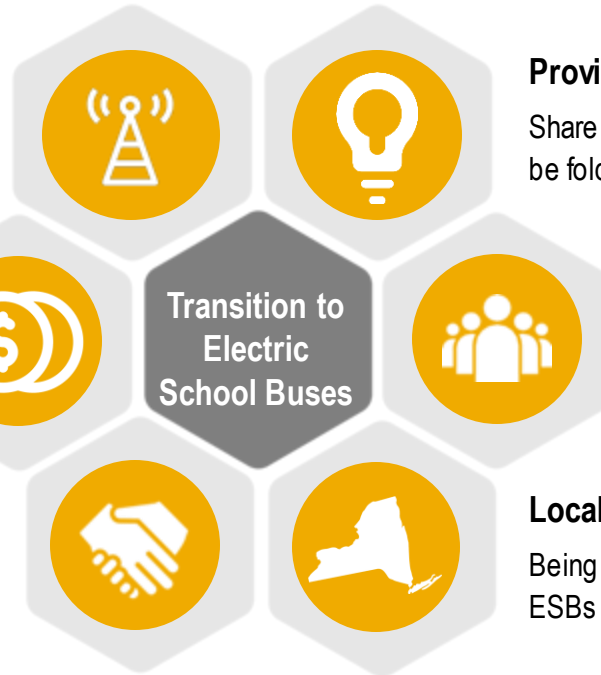
**EPA Clean
Heavy-Duty
Vehicles Grant
Program**

	EPA Clean Heavy-Duty Vehicle (CHDV) Grants	EPA Tribal Diesel Emissions Reduction Act (DERA)
Deadline to apply	Thursday, July 25, 2024 at 11:59 PM ET	Friday, December 6th, 2024 at 11:59 PM ET
Funding available	~\$700M for School Bus Sub-Program, \$400M for projects serving nonattainment areas	Total of ~\$9 million: \$8 million for Tribes and \$1 million for territories. Awards for Tribal gov'ts/Alaska Native Villages <\$800,000, awards for territory gov't entities <\$400,000.
Eligible applicants	States/territories, municipalities/school districts, Tribes, nonprofit school transportation associations (no for-profit applicants)	States, including U.S. territories; Municipalities, including public school districts; Indian Tribes; and Nonprofit school transportation associations
Eligible technology	Class 6 and 7 vehicles only, ZEVs only, no leasing or repowers, MY 2010 and older buses are first priority; No bus minimum for Tribes	Diesel Vehicles, Engines, and Equipment (including school buses, on-road and off-road vehicles) MY 2010 or older; Diesel emission reduction solutions; No bus minimum for Tribes
Cost share	25% cost share waived for Tribe and territory applicants	Not required as a condition of eligibility under this competition, applicants may propose to provide voluntary cost share
Application process	15-page max, 10-bus min, 2- to 3-year project period, submitted via Grants.gov, scored on a rubric. Supplemental forms: Fleet sheet and project narrative (workplan + budget) required, school district approval form required for third-party applicants, school board awareness and utility partnership forms required but not binding	14-page max, 2- to 3- year project period, submitted via Grants.gov, scored on a rubric. Supplemental forms: Fleet sheet and project narrative (workplan + budget table), emissions reduction calculations, cost share commitment letters (if applicable)

TECHNICAL ASSISTANCE OFFERINGS

Open Office Hours

Contact WRI staff directly for 1:1 sessions on district-specific questions.



Providing Tools and Resources

Share research and talking points on ESBs that can be folded into your budget/voter outreach material.

Funding Assistance & TCO Support

Understand and expand federal & state funding options. Support with Total Cost of Ownership (TCO) calculations for ESBs.

ESB Cohort Opportunity

Peer to peer learning & facilitated workshops focused on electric school buses and the selected district's needs.

Enhancing School District Partnerships

Connecting school districts with others across the country that are working on electrification.

Local and Statewide Engagement

Being present at/providing resources on ESBs for any relevant events with districts.

IRA TAX CREDITS WEBINAR

Want to learn how your school district may qualify for federal tax credits for your electric school bus and charging infrastructure?

Join us on June 11th to hear from experts and school administrators!

Register here: bit.ly/ESBtaxcredits



THANK YOU!

Please complete our short survey:

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