

Knox County R-1 School District



Electric School Bus Topics

- Infrastructure - Am I ready?
- Electric bus - What are the benefits?
- Range - How to get the most out of your bus?
- Performance - Will it work for me?
- Support - How will I get it fixed?

Infrastructure - Am I Ready?

- Electric Provider
 - Communication
 - Size requirements
 - Times to charge and rates
 - Certified electrician to install
- Charging Station
 - Level II (AC) or Level III (DC) charger
 - Onboard Charger Kwh
 - Charge Times - How long? What do I need?

Electric bus - What are the benefits?

- Benefits
 - Air Pollution
 - Comfort
 - Quiet
 - Pre-heat and smart charge
 - Savings
- Training
 - Bus driver
 - Bus mechanic
 - First responders

Range - How to get the most out of your bus?

- What impacts the Range of your bus?
 - Regenerative Breaking
 - Air Brakes vs. Hydraulic Breaks
 - AC and Heat
 - Driving Habits

Performance - Will it work for me?

- Performance in different conditions
 - Extreme cold and extreme heat
 - Gravel roads
 - Snow and muddy roads
 - Trips vs. routes

Support - How will I get it fixed?

- If the bus is broke, what do I do?
 - Tow it back to school
 - Who will work on it?
 - How will my mechanic work on it?
 - What kind of support will I get?

Things to think about

- Sound generator
- Combo charger
- Charging port location
- Issues - new technology
- V2G and V2B



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EPA's Clean Diesel Grants

In-person MASA Spring Conference

Jefferson City, MO

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Agenda

EPA Clean Diesel Programs

Overview of the Bipartisan Infrastructure Law's Clean School Bus (CSB) Program

Eligible CSB Applicants

Rebate Vs. Grant

Utility Engagement Pledge

Conclusion

EPA Clean Diesel Programs

- Diesel Emission Reduction Act (DERA)
 - National DERA Grants
 - State DERA Grants
 - DERA School Bus Rebate Program
- Inflation Reduction Act (IRA)
 - Heavy-Duty Vehicles Program
 - DERA Funds
- Bipartisan Infrastructure Law (BIL)
- Clean School Bus Program
 - CSB Rebates
 - CSB Grants
 - The CSB Rebate Program has replaced the DERA School Bus Program.



Diesel Emission Reduction Act (DERA)

- **COMING SOON:** 2022-2023 National DERA Program Notice of Funding Opportunity
- Competitive grant with a 2-Year project period
- Eligible Applicants: Regional, state, local agencies with jurisdiction over transportation or air quality, including school districts, municipalities, counties, metropolitan/regional planning organizations, nonprofit organizations
- Eligible Projects: School buses, class 5 – 8 heavy-duty highway vehicles, locomotive and marine engines, nonroad engines/equipment used in construction, cargo handling (including at ports or airports), agriculture, mining or energy production (including stationary generators and pumps).



Inflation Reduction Act (IRA)

- EPA Funding:
 - \$3B for new Clean Ports Program
 - \$1B for Class 6-7 HD zero-emission vehicles
 - \$60M for Diesel Emissions Reduction Act
 - \$50M for Funding to reduce air pollution at schools
 - \$27B for the Greenhouse Gas (GHG) Reduction Fund
- EPA has hosted public listening sessions to collect feedback on program design.
- DERA Funds





The Bipartisan Infrastructure Law's Clean School Bus Program provides an unprecedented \$5 billion to spur the transformation of the nation's existing fleet of school buses.





Overview of the Bipartisan Infrastructure Law's Clean School Bus Program

- **Under Title XI:** Of the Bipartisan Infrastructure Law (BIL) Congress provided EPA with **\$5 billion** over five years (FY22-26) to replace existing school buses with new low or no emission school buses.
- School bus upgrades funded under this program will result in cleaner air in the bus cab, around the bus loading area, and in the communities in which they operate.
- The legislation allows EPA to provide **REBATES, GRANTS** or contracts.



Eligible Applicants

State and local governmental entities responsible for:
1) providing bus service to 1 or more public school systems; or 2) the purchase of school buses

Nonprofit School Transportation Associations

Indian Tribes, Tribal Organizations, or tribally controlled schools

Eligible Contractors

Eligible Applicants

- School Districts
- Non-profit School Transportation Associations
- State Government
- School Bus Dealer and Manufacturer
- Indian Tribe, Tribal Organization or a Tribal controlled school
- Potential Others:
 - for-profit, not-for-profit, or nonprofit entity that has the capacity (A) to sell clean school buses, zero-emission school buses, charging or fueling infrastructure, or other equipment needed to charge, fuel, or maintain clean school buses or zero emission school buses, to individuals or entities that own a school bus or a fleet of school buses; or (B) to arrange financing for such a sale.



Proposed CSB Programs

- The EPA plans to run a REBATE and GRANT program in alternating years.
- In 2022 the EPA introduced the CSB program by offering REBATES.
- In 2023 EPA is planning to award GRANTS.
- The parameters of this year's GRANT program have not been completed.
- Website and newsletter



Grants vs Rebates



REBATES

- CSB program rebates are like the DERA rebate program. Simplified applications and selected by a lottery
- The difference:
 - Selection is based on established lists of priority School Districts.
 - The funding level of the rebates has been increased and is provided when the purchase order is issued.
 - The applicant can apply for the **replacement of up to 25 buses.**



Rebates vs Grants

GRANTS

- Grants are a mechanism the government uses to provide money to entities in support of their programs.
- The CSB grants will be competitive with a two-year project period.
- The grants are intended to replace **more than 25 buses per application**.
- The details of the grant program is still in the development stage.



Grants

- Purpose – To accelerate nationwide deployment of clean and zero-emission school buses and ensure a broad geographic distribution of awards.
- Provide streamlined CSB funding programs to benefit the maximum number of school districts allowed under the law.



Utility Engagement Pledge



A primary barrier school districts are facing is uncertainty around charging infrastructure deployment and how to engage with electric companies

- **Installation of charging infrastructure can undergo long lead times and requires close coordination with the local utility**



EPA is working with national electric utility company organizations to support school districts through a Utility Pledge that includes:

- **Facilitating Communication Between Electric Providers and School Districts**
- **Providing Technical Support and Assistance**
- **Increasing Funding and Deployment**



Additional information on the Utility Pledge and other technical assistance resources are available on: [epa.gov/cleanschoolbus technical assistance](https://www.epa.gov/cleanschoolbus/technical-assistance)



Future CSB Funding Opportunities



- EPA intends to make another \$1 billion available in FY23 for the Clean School Bus Programs
- Submit comments on program design to cleanschoolbus@epa.gov
- Don't miss any updates – sign up for email notifications at: [epa.gov/cleanschoolbus](https://www.epa.gov/cleanschoolbus) and <https://www.epa.gov/dera/national>



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Kaitlyn and Shelly work out of the EPA Region 7 Office in Lenexa, Kansas. We serve as Project Officers for all Clean School Bus and DERA programs in Iowa, Kansas, Missouri, and Nebraska. **WE ARE HERE TO HELP YOU!**

