Knox County R-I 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?

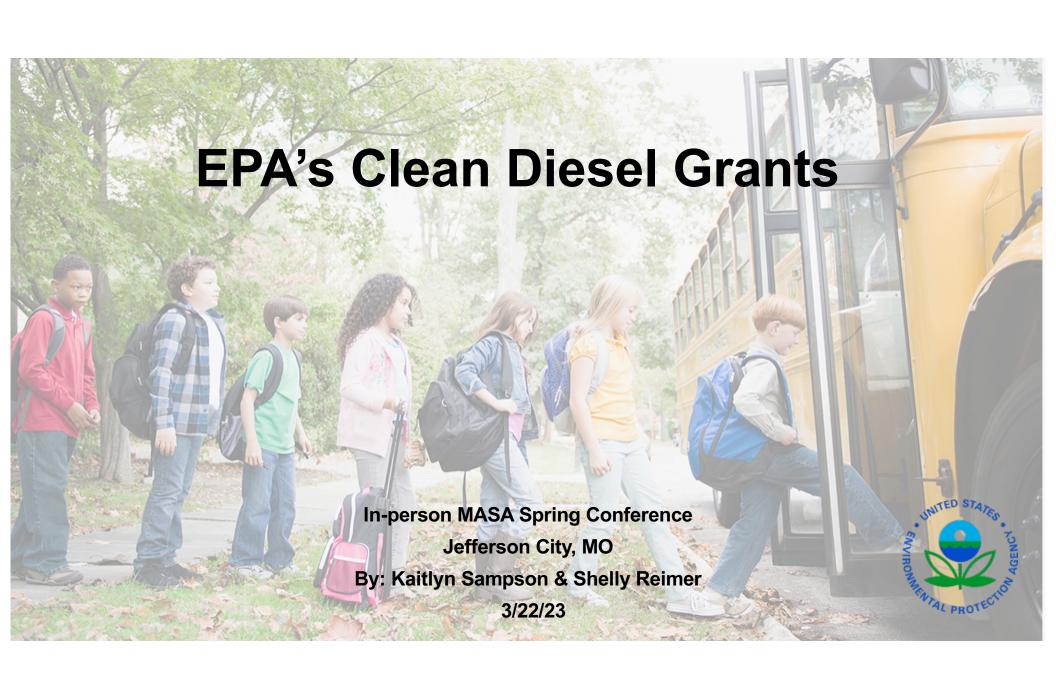
- If the bus is broke, what do I do?
 - Tow it back to school
 - Who will work on it?
 - How will my mechanic work on it?
 - What kind of support will I get?

Things to think about

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



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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)

\$EPA

- 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

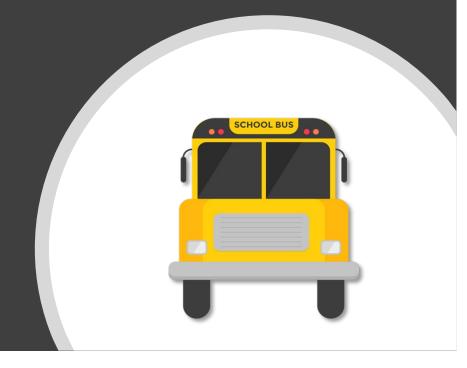
Indian Tribes, Tribal
Organizations, or tribally
controlled schools

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



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 <u>cleanschoolbus@epa.gov</u>
- Don't miss any updates sign up for email notifications at: epa.gov/cleanschoolbus and https://www.epa.gov/dera/national





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