

**ENVIRONMENTAL PROTECTION AGENCY (EPA)
2022-23 Diesel Emission Reduction Act National Grants
Notice of Funding Opportunity (NOFO)
EPA-OAR-OTAQ-23-03**

EPA Region – Four (4)

Applicant Information

- Marion County Board of Education
- 755 E. Main St.
- Lebanon, KY 40033
- Michael K. Abell
- 270-692-4150
- michael.abell@marion.kyschools.us
- UEI # J21FW94LPDK3

Type of Eligible Applicant

- Marion County Board of Education, Lebanon, KY
- Nonprofit organizations that provides educational services to persons or organizations that own and operate diesel fleets who look to the promote air quality.

Project Title

Marion County Board of Education 2023 DERA Application

Project Period of Performance:

August of 2024 to May 2040 (14 to 16 years)

Short Project Description:

Marion County Schools will use the DERA funding to purchase a new bus that is more efficient than our current bus. We currently have a fleet of 45 buses with some older that qualify for the grant. The new bus would serve both urban and rural routes in the county.

Project Sector(s): Transit

Target Fleets: School Bus

Budget Summary:

- EPA Funding: \$34,448.75
- Mandatory Cost Share & Source: Remaining cost of School Bus - \$103,346.25
- Voluntary Costs Share & Source (if applicable) – N/A
- Total Project Cost: \$137,795

Project Location –

The school bus purchased would serve both Marion County and the city of Lebanon located in central KY.

Workplan:

Section 1- Overall Project and Approach

The project would allow the Marion County Board of Education to purchase a new and more efficient bus that will significantly reduce the amount of pollution in both the city of Lebanon and Marion County in Kentucky. The bus being replaced is a 72 passenger 2009 International conventional bus with a diesel engine with an annual mileage of 7,221 miles. It does remain in good operating condition but emits higher levels of air pollution than a new bus.

Consideration has been given as to how the new bus can best be utilized in an effort to maximize emission reductions. The bus would be designated for a route that serves the students in both Lebanon, KY and Marion County. This would have the greatest impact on the community as it serves the areas with the highest number of both residents and students. The city of Lebanon is fortunate to have several factories and job opportunities in the community. However, this does result in a high number of daily commuters, both local and from neighboring counties, who contribute to the emission concerns. Replacing an older bus with a newer more efficient model will only help to improve the current situation. The ability to use a new bus to transport students would not only enhance their experience on the bus but will benefit the air quality in the county due to the reduction in emissions.

Once the project is approved the district will order a new bus from the KY State Bid List. The bus would be a conventional 75 passenger model. New buses have been experiencing extended build times in recent years depending on the model and manufacturer selected. The district will retain ownership of the bus and utilize it on daily routes until depreciation has expired through the KY Department of Education, typically about 14-15 years. At that time the bus may continue to be used as a sub or placed up for auction based on the needs of the district.

Upon project approval the district will scrap the old buses identified in the grant application according to guidelines provided. In previous grants buses have been sold to a scrap yard who then documents drilling a hole in the engine block and cutting of the frame.

Section 2 - Goods Movement Facilities – Not Applicable

Section 3 - Environmental Justice and Disadvantaged Communities

The city of Lebanon is fortunate to have several factories and job opportunities in the community. However, this does result in a high number of daily commuters, both local and from neighboring counties, who contribute to the emission concerns. Replacing an older bus with a newer more efficient model will only help to improve the current situation.

PROJECT LOCATION TABLE

County	State	City	Zip code	Fleet, Types and Number of Affected Vehicles	% Of Time Vehicles Spend in Area	Non-Attainment Area	Air Toxic Assessment Area	Goods Movement
Marion	KY	Lebanon	40033	School Bus	100	N/A	N/A	Students

Section 4 – Project Sustainability

Upon receipt the new buses will remain on a daily route for the next 12-15 years, reducing emissions long after the initial EPA funding. The district will continue to promote anti-idling campaigns and plans to submit DERA Grant applications each year it is eligible to increase the efficiency of our fleet.

Section 5 – Project Resilience to Climate Impacts

As the largest transportation provider in Marion County the district has its fleet of drivers and buses available to assist in the event of an emergency. We work with emergency response to coordinate evacuations resulting from natural and other disasters that may require the use of buses. The district monitors climate/weather on a daily basis to ensure student safety. On days we have severe weather (flooding, wind, snow) we cancel or delay school. This not only benefits students and parents but helps protect buses from damage in extreme circumstances. An additional adaptation resulting from climate is that new buses will have air conditioning, making for an improved travel experience.

Section 6 – Workforce Development

All KY bus drivers are required to attend an eight (8) hour update each year. At this time drivers receive training on how to safely operate and maintain their vehicles, especially new ones. It provides an opportunity to learn about industry changes and remain informed of best practices. A new bus also means additional learning for our mechanics. It is crucial they remain up to date on current issues and technology to ensure buses

operate efficiently. The addition of the new bus will only serve to enhance our current fleet and allow the district to attract and retain drivers.

Section 7 - Environmental Results—Outcomes, Outputs and Performance Measures

- a. **Emissions Reductions** - See attached.
- b. **Cost-Effectiveness** - See attached.
- c. **Other Expected Project Outputs and Outcomes**

Hopefully the increased efficiency of the new bus will result in improved gas mileage and lessen the district’s diesel expense each year.

Outputs and Outcome Table

Activities	Outputs	Outcomes
<u>TOTALS</u>		Total Annual Emissions Reduction= 57.5% PM _{2.5}
		Total Annual Emissions Reduction = 75.6% NO _x
		Total Annual Emissions Reduction = 90.8% HC
		Total Annual Emissions Reduction = 42.8% CO
		Total Annual Emissions Reduction = -136.3% CO ₂

d. Performance Measures and Plan

Diesel use and miles per gallon will be calculated monthly. The decrease in emissions from the newer more efficient engine will reduce emissions for the duration of time the bus is in service.

e. Timeline and Milestones

March 2024 – Order Bus upon Grant Approval
 October 2024 – Receive Buses – Assign to Routes – Complete EPA Request for Funding/Document of Scrapping Old Bus

Section 8 - Programmatic Capability and Past Performance

a. Past Performance

DERA Grant 2020 – EPA partially funded the replacement of one (1) school bus.
 DERA Grant 2021 – EPA partially funded the replacement of one (1) school bus.

b. Reporting Requirements

- Report submitted for 2020 DERA Grant along with pics of engine block and bus with rails cut as required along with invoice from receipt of new bus.

- Waiting for delivery of new bus to provide invoice, at that time all documentation will be forwarded as outlined for the 2021 DERA Grant.

c. Staff Expertise

- Michael Abell – Transportation Director for Marion County Public Schools for 4 years. Participated in the DERA grant 2 of the past 3 years.
- Tommy Glasscock – Director of Vehicle Maintenance for the past 2 years. Twenty (20) plus years of experience as bus driver, trainer, inspector.
- Scott Spalding – Director of Finance/Operations for 4 years, former Director of Transportation for 10 plus years. Strong understanding of both finance/grants and transportation.

Section 9 - Budget

Mandatory Cost Share: \$103,346.25

Voluntary Cost Sharing: N/A

a. Budget Detail

The only expense would be the 25% allowed toward the purchase of a new school bus. The current specification guide has not been released from the KY Department of Education but the base cost of a new Blue Bird will be \$137,795 based on conversations with a representative from Central States Bus Sales in Lexington, KY. Based on that number the district would cover \$103,346.25 of the cost and EPA DERA grant would contribute \$34,448.75.

- **Personnel** – N/A
- **Fringe Benefits** – N/A
- **Travel** – N/A
- **Equipment** – New School Bus @ \$137,795
- **Supplies** – N/A
- **Contractual** – N/A
- **Other** – N/A
- **Indirect Charges** – N/A

Budget Table (Required, part of the 14-page limit)

<i>Line Item and Itemized Cost</i>	<i>EPA Funding¹</i>	<i>Voluntary Cost Share⁷</i>	<i>Mandatory Cost Share²</i>
TOTAL EQUIPMENT	\$		
<i>1 New 75 Passenger School Bus</i>	\$34,448.75		\$103,346.25
TOTAL PROJECT COST		\$137,795	

b. Expenditure of Awarded Funds

Upon confirmation the grant had been awarded to the district the new school bus would be ordered immediately to ensure a timely arrival date. There have been significant wait times with some manufacturers and we would want to limit delays if possible. Upon receipt of the new bus the bus identified in the grant will then be scrapped in accordance with the grant guidelines. The process will be documented and forwarded to the EPA along with the invoice for the new bus and all additionally required information.

c. Reasonableness of Costs

The only cost identified will be the expense of the new bus. The district will review the specifications guide provided by the KY Department of Education and order a bus that best fits the district needs at the most reasonable cost.

¹ EPA Funding amount must be included on the SF-424 in Section 18.a and SF-424A in: cell 5(e) under Section A – Budget Summary; and Column (1) under Section B – Budget Categories.

² Non-Federal Cost Share funding amount must be included on the SF-424 in Section 18.b-e and SF424A in: cell 5(f) under Section A – Budget Summary; columns (2) and (3) under Section B – Budget Categories; and Section C – Non-Federal Resources.

Section 10 - Attachments:

- **Applicant Fleet Description** (Required, does NOT count towards the 14-page limit):
The bus identified for replacement is a 72 passenger 2009 International Conventional School Bus owned by Marion County Public Schools in KY. The school bus does meet grant guidelines and will be replaced with a more efficient 2024 model if approved. The new bus will serve both the city of Lebanon and Marion County. The additional information requested is included in the table below and the Applicant Fleet Description attached.

Vehicle ID Numbers	4DRBUAAN0AA190743
Vehicle Make	International
Vehicle Model	Conventional Bus
Vehicle Model Year	2009
Engine Serial Number	466HM2U3069052
Engine Make	Navistar
Engine Model	Maxxforce DT
Engine Model Year	2009
Number of Cylinders	6
Engine Fuel Type	Diesel
Annual Amount of Fuel	952
Annual Usage Hours	
Annual Miles Traveled	7221
Annual Idling Hours	30
Remaining Life	10 years

The diesel emissions reduction solution will be replacing the old school bus with a more efficient 2024 diesel engine school bus at a one-time cost of \$137,795, of which the grant would cover 25%.

- **Emissions Reduction Calculations:**
 - EPA Diesel Emissions Quantifier (DEQ) was used to calculate emissions reduction with the results attached.
- **Partnership Letters** – N/A

- **Mandated Measures Justification Supporting Information – N/A**