

BENEFICIARY ELIGIBLE MITIGATION ACTION CERTIFICATION (Revised)

Beneficiary State of Arkansas

Lead Agency Authorized to Act on Behalf of the Beneficiary Arkansas Department of Energy and Environment

(Any authorized person with delegation of such authority to direct the Trustee delivered to the Trustee pursuant to a Delegation of Authority and Certificate of Incumbency)

Action Title:	Class 4-8 School Bus, Shuttle Bus, or Transit Bus (Eligible Buses)
Beneficiary Project ID:	ABC Transportation Program
Funding Request No.	29
Request Type: (select one or more)	☒ Reimbursement ☐ Advance ☐ Other (specify):
Payment to be made to: (select one or more)	☒ Beneficiary ☐ Other (specify):
Funding Request & Direction (Attachment A)	☐ Attached to this certification ☒ To be provided separately

SUMMARY

Eligible Mitigation Action ☒ Appendix D-2 item (specify): <u>Class 4-8 School Bus, Shuttle Bus, or Transit Bus (Eligible Buses)</u> Action Type ☐ Item 10 - DERA Option (5.2.12) (specify and attach DERA Proposal):
Explanation of how funding request fits into Beneficiary's Mitigation Plan (5.2.1): This Eligible Mitigation Action Certification (EMAC) implements the ABC program described in section IV. A. of the Arkansas's Beneficiary Mitigation Plan.
Detailed Description of Mitigation Action Item Including Community and Air Quality Benefits (5.2.2): The ABC program will provide funding assistance for projects that reduce emissions by replacing eligible diesel school buses or transit buses with alternate-fueled (low NOx compressed natural gas, propane, or liquefied natural gas), electric hybrid, or all-electric vehicle technologies. Eligible vehicles for replacement under this program include diesel-powered vehicles with an engine model year 2009 or older that fall into one of the following categories: • Class 4–8 School Bus, Shuttle Bus, or Transit Bus (Eligible Buses)

Eligible vehicles may be:

- Replaced with any Alternate-Fueled, Hybrid, or All-Electric Bus.
- Each bus to be replaced must have accumulated at least 7,000 miles per year on average during calendar years 2020 and 2021. Scrappage of replaced equipment is required.

Awards for this program are offered on a competitive basis. Applications were evaluated based on the following criteria:

- Share of the air pollution burden;
- Project benefits;
- Programmatic capability; and
- Partnerships.

Only organizations that meet the definition of “Government” under the Environmental Mitigation Trust Agreement were eligible to apply.

The proposed projects are listed in the table below.

Applicant	Number of School Buses	Project Type (all-electric, LPG, etc.)	Vehicle to be replaced
Jacksonville North Pulaski SD	10	LPG	Seven 2006 diesel buses, a 2007 diesel bus, and two 2008 diesel buses
Alma SD	8	All-electric	Eight 1992 diesel buses
Pulaski County Special SD	20	LPG	Eight 2006 diesel buses, seven 2001 diesel buses, three 2007 diesel buses, and two 2008 diesel buses

Estimate of Anticipated NO_x Reductions (5.2.3):

Actual emissions reductions in the table below were calculated using the EPA Diesel Emission Quantifier	Number of School Buses	Project Type (all-electric, LPG, etc.)	Lifetime Emissions Reductions (tons)
Applicant			
Jacksonville North Pulaski SD	10	LPG	1.3
Alma SD	8	All-electric	323.28
Pulaski County Special SD	20	LPG	11.28

Identification of Governmental Entity Responsible for Reviewing and Auditing Expenditures of Eligible Mitigation Action Funds to Ensure Compliance with Applicable Law (5.2.7.1):

Arkansas Department of Finance and Administration

Describe how the Beneficiary will make documentation publicly available (5.2.7.2).

DEQ will post this EMAC minus Attachments A and D, as well as project application instructions for the program described in this EMAC to <https://www.adeq.state.ar.us/air/planning/vw.aspx>. DEQ will upload information required in the semi-annual reports to the Trustee, including estimated emissions reductions, program implementation milestones, and project recipients and awards; to the same webpage.

Describe any cost share requirement to be placed on each NOx source proposed to be mitigated (5.2.8).

Only organizations meeting the definition of “Government” under the Environmental Mitigation Trust Agreement are eligible to apply. No cost-share is required. The maximum funding assistance amount under the ABC program is based on the bus type and the replacement bus fuel type. The table below provides the amounts that DEQ will allocate for selected applicants per bus. DEQ will not provide reimbursement in excess of actual eligible project costs. Selected project sponsors are responsible for any costs in excess of the maximum funding assistance amounts specified in the table below.

Maximum Funding Amount per Replacement Bus

Bus Type	Replacement Bus Fuel Type	
	Alternative-Fuel	All-Electric*
School Bus	\$98,000	\$375,000
Transit Bus	\$405,000	\$716,000

Describe how the Beneficiary complied with subparagraph 4.2.8, related to notice to U.S. Government Agencies (5.2.9).

On February 28, 2018, ADEQ provided notice to the US. Fish and Wildlife Service, National Park Service, and the Forest Service of Arkansas’s designation as a Beneficiary under the Trust. These notices were sent to the email addresses listed in the Trust Agreement and included a letter from Stuart Spencer, Associate Director of the Office of Air Quality at DEQ, the Environmental Mitigation Trust Agreement for State Beneficiaries, the Notice of Beneficiary Designation, and the Amended D-3 Certification with Attachment. These federal land managers were also provided with a link to <https://www.adeq.state.ar.us/air/planning/vw.aspx>, where DEQ is posting information related to DEQ’s implementation of Arkansas’s beneficiary mitigation plan. These notifications have been posted to the webpage.

If applicable, describe how the mitigation action will mitigate the impacts of NOx emissions on communities that have historically borne a disproportionate share of the adverse impacts of such emissions (5.2.10).

The application evaluation process included three metrics related to how the application mitigates the impacts of NOx emissions on communities that have historically borne a disproportionate share of the adverse impacts from NOx emissions.

Metric 1: # of settlement subject vehicles registered in county (based on percentage of total vehicles registered

Metric 2: Onroad NOx Emissions

(based on percentage of total emission inventory

Metrics: Ozone and PM2.5 NAAQS Design Values: (Historic values near to or exceeding the level of the NAAQS)

Additional points were awarded based on the applicant's description of project benefits including the extent to which the project reduces environmental risks to the public, sensitive populations, economically disadvantaged populations, and other populations with disproportionately high and adverse human health or environmental impacts.

ATTACHMENTS
(CHECK BOX IF ATTACHED)

- | | |
|-----------------------|---|
| Attachment A | Funding Request and Direction |
| ✓ Attachment B | Eligible Mitigation Action Management Plan Including Detailed Budget and Implementation and Expenditures Timeline (5.2.4) |
| ✓ Attachment C | Detailed Plan for Reporting on Eligible Mitigation Action Implementation (5.2.11) |
| ✓ Attachment D | Detailed cost estimates from selected or potential vendors for each proposed expenditure exceeding \$25,000 (5.2.6). [Attach only if project involves vendor expenditures exceeding \$25,000.] |
| Attachment E | DERA Option (5.2.12). [Attach only if using DERA option.] |
| Attachment F | Attachment specifying amount of requested funding to be debited against each beneficiary's allocation (5.2.13). [Attach only if this is a joint application involving multiple beneficiaries.] |

CERTIFICATIONS

By submitting this application, the Lead Agency makes the following certifications:

1. This application is submitted on behalf of Beneficiary Arkansas, and the person executing this certification has authority to make this certification on behalf of the Lead Agency and Beneficiary, pursuant to the Certification for Beneficiary Status filed with the Court.
2. Beneficiary requests and directs that the Trustee make the payments described in this application and Attachment A to this Form.
3. This application contains all information and certifications required by Paragraph 5.2 of the Trust Agreement, and the Trustee may rely on this application, Attachment A, and related certifications in making disbursements of trust funds for the aforementioned Project ID.
4. Any vendors were or will be selected in accordance with a jurisdiction's public contracting law as applicable. (5.2.5)
5. Beneficiary will maintain and make publicly available all documentation submitted in support of this funding request and all records supporting all expenditures of eligible mitigation action funds subject to applicable laws governing the publication of confidential business information and personally identifiable information. (5.2.7.2)

DATED: 05.18.2026



Demetria Kimbrough
Deputy Director, Office of Air Quality

Arkansas Department of Energy and Environment
[LEAD AGENCY]

for

State of Arkansas
[BENEFICIARY]

ATTACHMENT B

ABC Revised PROJECT MANAGEMENT PLAN

PROGRAM SCHEDULE AND MILESTONES

The Advanced Bus and Clean (ABC) Transportation program will provide funding assistance on a competitive basis for Arkansas school districts and transit authorities seeking to replace eligible diesel school and transit buses with all-electric, hybrid or alternative-fuel buses. The goal of the ABC Transportation program is to reduce emissions of nitrogen oxides (NOx) from Arkansas fleets and to encourage the development of alternative fuel infrastructure within the state.

Milestone	Time Required	Target Date(s)
Application Period	60 days	September 1, 2022- October 31, 2022
Application Review, Project Selection; and Coordination of Signatures for MOAs for Selected Projects <i>(All funds are committed after this milestone is complete. Press releases with respect to awards can go out.)</i>	30 days	November 1 – November 30, 2022
Project Implementation <i>(Our experience with Clean Fuels during the pandemic indicates that more time may be required due to supply chain constraints. Extensions would be granted on a case-by- case basis.)</i>	6 months	May 31, 2023
Processing of Reimbursement Requests and Check Issuance from Disburser to Reimburse for Selected Projects	15 days	July 1, 2023

PROGRAM BUDGET

A total of \$8,084,488 was previously allocated to the ABC Transportation Program, with an estimated \$7,815,000 to be awarded to program participants for completing projects and \$269,488 for administrative costs associated with running the program. Final reimbursement amounts came in lower than originally anticipated at \$5,254,000. Therefore, we are revising the ABC budget to reflect actual costs and request an additional \$657,688 for reimbursement of administrative costs associated with running the program, bringing the administrative total to \$927,176. The revised budget is summarized below.

Period of Performance: <u>Fall 2022 to Fall 2023</u>	
Budget Category	Share of Total Program Budget to be funded by the Trust
Program Participants Support	\$5,254,000
Administrative	\$927,176
Project Totals	\$6,181,176

PROJECTED TRUST ALLOCATIONS:

The table below indicates anticipated funds to be drawn down from Arkansas's allocation under the Trust for the ABC Transportation Program. The amounts in this table reflect only the portion of Arkansas's allocation allotted to the ABC Transportation Program in the Arkansas Beneficiary Mitigation Plan.

Project Trust Allocations	2022	2023
1. Anticipated Annual Project Funding Request to be paid through the Trust	\$ 927,176	\$ 5,254,000
2. Anticipated Annual Cost Share		
3. Anticipated Total Project Funding by Year (line 1 plus line 2)	\$ 927,176	\$ 5,254,000
4. Cumulative Trustee Payments Requested to Date Against Cumulative Beneficiary Allocation	\$5,566,647	\$5,836,135
5. Current Beneficiary Project Funding to be Paid through Trust (line 1)	\$ 927,176	\$ 5,254,000
6. Total Funding Requested by Beneficiary, inclusive of Current Action by Year (line 4 plus line 5)	\$5,836,135	\$13,651,135
7. Total Funding Allocated to Beneficiary	\$14,647,909	\$14,647,909
8. Net Beneficiary Funds Remaining in Trust, net of cumulative Beneficiary Funding Actions (Line 7 minus line 6)	\$8,811,774	\$996,774
9. Trust funds interest accumulated to-date 11/18/22		\$615,075.03
10. Net Beneficiary Funds Remaining in Trust, Plus interest accumulated for Trust fund investments (Line 8 plus line 9)		\$1,611,849.03

ATTACHMENT C

DETAILED PLAN FOR REPORTING ON ELIGIBLE MITIGATION ACTION IMPLEMENTATION

The Arkansas Department of Energy and Environment (E&E), Division of Environmental Quality (DEQ) will provide detailed reporting on the Advanced Bus and Clean (ABC) Transportation Program in two ways: 1) timely updates to DEQ's Volkswagen Mitigation Trust web page and 2) semiannual reporting to Wilmington Trust.

1. DEQ Volkswagen Mitigation Trust webpage

DEQ maintains a Volkswagen Mitigation Trust web page that has been designed to disseminate information regarding Arkansas's beneficiary mitigation plan and implementation of that plan. The web page is located at <https://www.ADEQ.state.ar.us/air/planning/vw.aspx>. Guidance on how to apply for reimbursement under the ABC Transportation Program is accessible via this web page. DEQ will post the Eligible Mitigation Action Certification (EMAC) and Attachments B and C to this web page. DEQ will also upload information to this web page including estimated emission reductions, program implementation milestones, and project recipients and awards.

2. Semiannual reporting to Wilmington Trust

The State Beneficiary Trust Agreement establishes the following requirements for reporting for each Eligible Mitigation Action to the Trustee:

For each Eligible Mitigation Action, no later than six months after receiving its first disbursement of Trust Assets, and thereafter no later than January 30 (for the preceding six-month period of July 1 to December 31) and July 30 (for the preceding six-month period of January 1 to June 30) of each year, each Beneficiary shall submit to the Trustee a semiannual report describing the progress implementing each Eligible Mitigation Action during the six-month period leading up to the reporting date (including a summary of all costs expended on the Eligible Mitigation Action through the reporting date). Such reports shall include a complete description of the status (including actual or projected termination date), development, implementation, and any modification of each approved Eligible Mitigation Action. Beneficiaries may group multiple Eligible Mitigation Actions and multiple sub-beneficiaries into a single report. These reports shall be signed by an official with the authority to submit the report for the Beneficiary and must contain an attestation that the information is true and correct, and that the submission is made under penalty of perjury. To the extent a Beneficiary avails itself of the DERA Option described in Appendix D-2, that Beneficiary may submit its DERA Quarterly Programmatic Reports in satisfaction of its obligations under this Paragraph as to those Eligible Mitigation Actions funded through the DERA Option. The Trustee shall post each semiannual report on the State Trust's public-facing website upon receipt.

DEQ has developed a report template for documenting implementation of the ABC Transportation Program. This template includes information for each budget category, including:

- Mitigation Funds Expended for the Current Reporting Period
- Voluntary Additional Cost-Share Expended for the Current Reporting Period
- Cumulative Mitigation Funds Expended
- Cumulative Voluntary Additional Cost-Share Expended

In addition, the template asks the following questions that will be answered for each reporting period:

- What actual accomplishments occurred during the reporting period?
- Were funds awarded for any projects under the Eligible Mitigation Action Plan during the current reporting period? If so, list the recipients and how much funding they received.
- Provide a comparison of actual accomplishments with the anticipated outputs/outcomes and timelines/milestones specified in the Eligible Mitigation Action Management Plan.
- If anticipated outputs/outcomes and/or timelines/milestones are not met, why not? Did you encounter any problems during the reporting period which may interfere with meeting the project objectives?
- How do you propose to remedy any problems? Identify how and the date you will get back on course to meet the anticipated outputs/outcomes and/or timelines/milestones specified in the Eligible Mitigation Action Management Plan.
- If any cost-shares are reported for this Reporting Period in Table 1 above, identify the source of the funds.
- Did any public relations events regarding this program take place during the reporting period?
- What is the URL for the state website where members of the public can find information about implementation of this Eligible Mitigation Action?

The template will also include a section for inputting project-specific details including the following:

- Type of Project: Replacement
- Fleet Owner
- Primary Place of Performance
 - State,
 - County,
 - City,
 - ZIP Code
- Eligible Vehicle/Equipment Information
 - Vehicle Size Class
 - Vehicle Type
 - Vehicle Identification Number
 - Vehicle Make
 - Vehicle Model
 - Vehicle Model Year
 - Engine Serial Number

- Engine Model Year
 - Engine Horsepower
 - Engine Fuel Type
 - Annual Amount of Fuel Used
 - Annual Miles Traveled
 - Annual Idling Hours
 - Remaining Life of Engine
- New Vehicle/Equipment Information
 - Fleet Owner
 - Primary Place of Performance
 - State,
 - County,
 - City,
 - ZIP Code
 - Vehicle Size Class
 - Vehicle Type
 - Vehicle Identification Number
 - Vehicle Make
 - Vehicle Model
 - Vehicle Model Year
 - Engine Serial Number
 - Engine Model Year
 - Engine Horsepower
 - Engine Fuel Type

ATTACHMENT D

Detailed cost estimate from selected or potential vendors for each proposed expenditure exceeding \$25,000

DEQ's ABC program provides reimbursement for proposed projects according to the funding limits and mandatory cost-share requirements provided by the VW Mitigation Fund. The following attachments are the estimated cost provided in the applicants' applications. Final documentation of actual expenses will be required upon completion of projects listed in the applications prior to reimbursement request.

Advanced Bus and Clean (ABC) Transportation Program

version 2.4

(Submission #: HPM-0E4E-81G9P, version 1)

Details

Submitted	10/21/2022 (30 days ago) by Jason Rutherford
Applicant	Alma School District
Submission ID	HPM-0E4E-81G9P
Submission Assigned Staff	Mikayla Shaddon
Status	Deemed Complete
Active Steps	Provide Application to Evaluation Committee

Form Input

Applicant Information

Applicant Organization Name
Alma School District

Type of Organization
School District

Applicant Organization Mailing Address

916 Hwy 64 E
Alma, AR 72921

Organizational DUNS number
100685866

Congressional District
4th

If you do not know your congressional district, you can find this information at
<https://argis.ualr.edu/DistrictFinder/index.html>.

[Click here to be directed to the UALR District Finder](#)

Project Manager Contact Information

First Name	Last Name	
Jason	Rutherford	
Title		
Transportation Director		
Phone Type	Number	Extension
Business	4796324794	
Email		
jrutherford@almasd.net		
Fax		
NONE PROVIDED		

Description of Applicant's Organization

Describe the work typically performed by the Applicant Organization

We are a public school system that educates students in grades K-12. We believe that all students have the opportunity and responsibility to learn, both academically and personally, in their pursuit of becoming successful adults. Furthermore, our staff is responsible for creating the environment so that students can do so.

We maintain high-quality programs that are overseen by high-quality staff in schools that are safe and inviting, with strong community involvement. As a result, students graduate ready for post-high school life, due to the many opportunities afforded to them through academic and co-curricular programs.

We achieve this by recruiting and retaining high-quality staff, providing technology and other resources needed for learning, increasing reading and ACT outcomes, providing outstanding curriculum opportunities, and maintaining the resources to be able to provide the best program possible.

Number of Persons Employed by the Applicant Organization

434

Number of Years Applicant Organization Has Been in Existence in Arkansas

100

Describe any Energy or Environmental Conservation Measures that the Applicant Organization Already Practices

In 3 years, we have completely switched to LED lights all across the district.

All of our HVAC units are connected to an energy management system that can be controlled by the district. The system detects occupied and unoccupied times in the buildings.

Over 50% of the lighting throughout the district is on a motion sensor. The lights are activated based on motion in the area.

We utilize a recycling program at all campuses.

Describe any Past Performance in Successfully Completing and Managing Projects Similar in Size, Scope, and Relevance to the Proposed Project

We have partnered with CLEAResult to assure that we are making strides to be more energy efficient in all areas. CLEAResult is the largest provider of energy efficiency, energy transition, and decarbonization solutions in North America.

Clear results have helped us to be more energy efficient in all areas, especially in lighting. We made the switch from incandescent lights to LED lights in all academic buildings over the span of 3 years. CLEAResult has also guided us in how to conserve energy in other areas as well.

Project Details (1 of 8)**Diesel-Powered School Bus;`EngineModelYear`**

Answer the following questions for each vehicle to be replaced. Click the "Add New Project Details" button at the end of this section for each additional vehicle.

Existing Vehicle Details

Existing Vehicle Type

Diesel-Powered School Bus

Typical Function of Existing Bus Involved in the Proposed Project

The existing bus is used daily (Monday through Friday) on a route, picking up students for school and delivering them home. It is also occasionally used for in town field trips and shuttles.

Existing Bus Operation Frequency and Time of Use

The existing bus is used 180 days out of the year (while school in session, Monday through Friday). It is used roughly 3 1/2 hours a day, but sometimes more.

In which County or Counties is the Existing Vehicle or Equipment Involved in the Proposed Project Typically Operated?

Crawford

On-Highway Weight Class

Class 7: 26,001 – 33,000 lbs.

Vehicle Identification Number

1BABMCBA7NF051563

Vehicle Make

Blue Bird

Vehicle Model

All American

Vehicle Model Year

1992

Highway Engine Information (Complete one row for each engine that powers the existing vehicle)

Engine Serial Number	Engine Family Name	Engine Make	Engine Model	Engine Model Year	Horsepower	Fuel Type	Fuel Used (gallons per year)
2BK18686	NA	Caterpillar	3116	1992	250	Ultra-Low Sulfur Diesel (ULSD)	900
							Sum: 900

Annual Miles Traveled

Year	Annual Miles (Miles per Year)
2020	7200
2021	7200
	Average: 7200

Number of days operated per week (on average) in 2020 and 2021

5

Remaining Life (Years)

4

New Vehicle Details

Replacement Bus Fuel Type

All-Electric

Percentage of Time the Affected Equipment will be Operated in Arkansas

100

Emission Reductions Anticipated from the Proposed Project

EPA's Diesel Emission Quantifier may be used to quantify the emissions benefit anticipated from the proposed project. This tool is freely available from the EPA website.

[Click here to access EPA's Diesel Emission Quantifier.](#)

Estimated Emissions Reductions

Pollutant	Annual Tons Reduced	Lifetime Annual Tons Reduced
Nitrogen Oxides (NOx)	.174	.695
Fine Particulate (PM2.5)	.007	.026
Hydrocarbons (HC)	.018	.07
Carbon Monoxide (CO)	.043	.171
Carbon Dioxide (CO2)	11.9	47.8
	Sum: 12.142	Sum: 48.762

Describe the methodology used to calculate estimated emissions reductions from the proposed project.

We used the Diesel Emissions Quantifier from the EPA Website.

Maximum Funding Assistance for this Replacement Bus

The maximum funding assistance value for eligible project costs associated with replacement of this bus is calculated based on user inputs.

Projects selected for award under this program will receive reimbursement for eligible project costs or the maximum funding assistance value, whichever is less, upon completion of the project and receipt by E&E of all required documents. The maximum funding assistance and terms for reimbursement shall be established in a Memorandum of Agreement (MOA) signed by E&E and selected project sponsors. Expenses that pre-date the signed MOA are not eligible for reimbursement. E&E retains the right to partially fund projects if so specified in the MOA.

Maximum Funding Assistance for Replacement of this Bus(\$)

375,000

Project Details (2 of 8)

Diesel-Powered School Bus;`EngineModelYear`

Answer the following questions for each vehicle to be replaced. Click the "Add New Project Details" button at the end of this section for each additional vehicle.

Existing Vehicle Details

Existing Vehicle Type

Diesel-Powered School Bus

Typical Function of Existing Bus Involved in the Proposed Project

The existing bus is used daily (Monday through Friday) on a route, picking up students for school and delivering them home. It is also occasionally used for in town field trips and shuttles.

Existing Bus Operation Frequency and Time of Use

The existing bus is used 180 days out of the year (while school in session, Monday through Friday). It is used roughly 3 1/2 hours a day, but sometimes more.

In which County or Counties is the Existing Vehicle or Equipment Involved in the Proposed Project Typically Operated?

Crawford

On-Highway Weight Class

Class 7: 26,001 – 33,000 lbs.

Vehicle Identification Number

1BABMCBAXNF051556

Vehicle Make

Blue Bird

Vehicle Model

All American

Vehicle Model Year

1992

Highway Engine Information (Complete one row for each engine that powers the existing vehicle)

Engine Serial Number	Engine Family Name	Engine Make	Engine Model	Engine Model Year	Horsepower	Fuel Type	Fuel Used (gallons per year)
6I2232	NA	Caterpillar	3116	1992	250	Ultra-Low Sulfur Diesel (ULSD)	832

Engine Serial Number	Engine Family Name	Engine Make	Engine Model	Engine Model Year	Horsepower	Fuel Type	Fuel Used (gallons per year)
							Sum: 832

Annual Miles Traveled

Year	Annual Miles (Miles per Year)
2020	6660
2021	6660
	Average: 6660

Number of days operated per week (on average) in 2020 and 2021

5

Remaining Life (Years)

4

New Vehicle Details

Replacement Bus Fuel Type

All-Electric

Percentage of Time the Affected Equipment will be Operated in Arkansas

100

Emission Reductions Anticipated from the Proposed Project

EPA's Diesel Emission Quantifier may be used to quantify the emissions benefit anticipated from the proposed project. This tool is freely available from the EPA website.

[Click here to access EPA's Diesel Emission Quantifier.](#)

Estimated Emissions Reductions

Pollutant	Annual Tons Reduced	Lifetime Annual Tons Reduced
Nitrogen Oxides (NOx)	.174	.695
Fine Particulate (PM2.5)	.007	.026
Hydrocarbons (HC)	.018	.07
Carbon Monoxide (CO)	.043	.171
Carbon Dioxide (CO2)	11.9	47.8
	Sum: 12.142	Sum: 48.762

Describe the methodology used to calculate estimated emissions reductions from the proposed project.

We used the Diesel Emissions Quantifier from the EPA Website.

Maximum Funding Assistance for this Replacement Bus

The maximum funding assistance value for eligible project costs associated with replacement of this bus is calculated based on user inputs.

Projects selected for award under this program will receive reimbursement for eligible project costs or the maximum funding assistance value, whichever is less, upon completion of the project and receipt by E&E of all required documents. The maximum funding assistance and terms for reimbursement shall be established in a Memorandum of Agreement (MOA) signed by E&E and selected project sponsors. Expenses that pre-date the signed MOA are not eligible for reimbursement. E&E retains the right to partially fund projects if so specified in the MOA.

Maximum Funding Assistance for Replacement of this Bus(\$)

375,000

Project Details (3 of 8)

Diesel-Powered School Bus;`EngineModelYear`

Answer the following questions for each vehicle to be replaced. Click the "Add New Project Details" button at the end of this section for each additional vehicle.

Existing Vehicle Details

Existing Vehicle Type

Diesel-Powered School Bus

Typical Function of Existing Bus Involved in the Proposed Project

The existing bus is used daily (Monday through Friday) on a route, picking up students for school and delivering them home. It is also occasionally used for in town field trips and shuttles.

Existing Bus Operation Frequency and Time of Use

The existing bus is used 180 days out of the year (while school in session, Monday through Friday). It is used roughly 3 1/2 hours a day, but sometimes more.

In which County or Counties is the Existing Vehicle or Equipment Involved in the Proposed Project Typically Operated?

Crawford

On-Highway Weight Class

Class 7: 26,001 – 33,000 lbs.

Vehicle Identification Number

1BABMCBA5NF051562

Vehicle Make

Blue Bird

Vehicle Model

All American

Vehicle Model Year

1992

Highway Engine Information (Complete one row for each engine that powers the existing vehicle)

Engine Serial Number	Engine Family Name	Engine Make	Engine Model	Engine Model Year	Horsepower	Fuel Type	Fuel Used (gallons per year)
2BK18711	NA	Caterpillar	3116	1992	250	Ultra-Low Sulfur Diesel (ULSD)	1305
							Sum: 1305

Annual Miles Traveled

Year	Annual Miles (Miles per Year)
2020	10440
2021	10440
	Average: 10440

Number of days operated per week (on average) in 2020 and 2021

5

Remaining Life (Years)

4

New Vehicle Details

Replacement Bus Fuel Type

All-Electric

Percentage of Time the Affected Equipment will be Operated in Arkansas

100

Emission Reductions Anticipated from the Proposed Project

EPA's Diesel Emission Quantifier may be used to quantify the emissions benefit anticipated from the proposed project. This tool is freely available from the EPA website.

[Click here to access EPA's Diesel Emission Quantifier.](#)

Estimated Emissions Reductions

Pollutant	Annual Tons Reduced	Lifetime Annual Tons Reduced
Nitrogen Oxides (NOx)	.174	.695
Fine Particulate (PM2.5)	.007	.026
Hydrocarbons (HC)	.018	.07
Carbon Monoxide (CO)	.043	.171
Carbon Dioxide (CO2)	11.9	47.8
	Sum: 12.142	Sum: 48.762

Describe the methodology used to calculate estimated emissions reductions from the proposed project.

We used the Diesel Emissions Quantifier from the EPA Website.

Maximum Funding Assistance for this Replacement Bus

The maximum funding assistance value for eligible project costs associated with replacement of this bus is calculated based on user inputs.

Projects selected for award under this program will receive reimbursement for eligible project costs or the maximum funding assistance value, whichever is less, upon completion of the project and receipt by E&E of all required documents. The maximum funding assistance and terms for reimbursement shall be established in a Memorandum of Agreement (MOA) signed by E&E and selected project sponsors. Expenses that pre-date the signed MOA are not eligible for reimbursement. E&E retains the right to partially fund projects if so specified in the MOA.

Maximum Funding Assistance for Replacement of this Bus(\$)

375,000

Project Details (4 of 8)

Diesel-Powered School Bus;`EngineModelYear`

Answer the following questions for each vehicle to be replaced. Click the "Add New Project Details" button at the end of this section for each additional vehicle.

Existing Vehicle Details

Existing Vehicle Type

Diesel-Powered School Bus

Typical Function of Existing Bus Involved in the Proposed Project

The existing bus is used daily (Monday through Friday) on a route, picking up students for school and delivering them home. It is also occasionally used for in town field trips and shuttles.

Existing Bus Operation Frequency and Time of Use

The existing bus is used 180 days out of the year (while school in session, Monday through Friday). It is used roughly 3 1/2 hours a day, but sometimes more.

In which County or Counties is the Existing Vehicle or Equipment Involved in the Proposed Project Typically Operated?

Crawford

On-Highway Weight Class

Class 7: 26,001 – 33,000 lbs.

Vehicle Identification Number

1BABMCBA2NF051566

Vehicle Make

Blue Bird

Vehicle Model

All American

Vehicle Model Year

1992

Highway Engine Information (Complete one row for each engine that powers the existing vehicle)

Engine Serial Number	Engine Family Name	Engine Make	Engine Model	Engine Model Year	Horsepower	Fuel Type	Fuel Used (gallons per year)
2BK18645	NA	Caterpillar	3116	1992	250	Ultra-Low Sulfur Diesel (ULSD)	630
							Sum: 630

Annual Miles Traveled

Year	Annual Miles (Miles per Year)
2020	5040

Year	Annual Miles (Miles per Year)
2021	5040
	Average: 5040

Number of days operated per week (on average) in 2020 and 2021

5

Remaining Life (Years)

4

New Vehicle Details

Replacement Bus Fuel Type

All-Electric

Percentage of Time the Affected Equipment will be Operated in Arkansas

100

Emission Reductions Anticipated from the Proposed Project

EPA's Diesel Emission Quantifier may be used to quantify the emissions benefit anticipated from the proposed project. This tool is freely available from the EPA website.

[Click here to access EPA's Diesel Emission Quantifier.](#)

Estimated Emissions Reductions

Pollutant	Annual Tons Reduced	Lifetime Annual Tons Reduced
Nitrogen Oxides (NOx)	.174	.695
Fine Particulate (PM2.5)	.007	.026
Hydrocarbons (HC)	.018	.07
Carbon Monoxide (CO)	.043	.171
Carbon Dioxide (CO2)	11.9	47.8
	Sum: 12.142	Sum: 48.762

Describe the methodology used to calculate estimated emissions reductions from the proposed project.

We used the Diesel Emissions Quantifier from the EPA Website.

Maximum Funding Assistance for this Replacement Bus

The maximum funding assistance value for eligible project costs associated with replacement of this bus is calculated based on user inputs.

Projects selected for award under this program will receive reimbursement for eligible project costs or the maximum funding assistance value, whichever is less, upon completion of the project and receipt by E&E of all required documents. The maximum funding assistance and terms for reimbursement shall be established in a Memorandum of

Agreement (MOA) signed by E&E and selected project sponsors. Expenses that pre-date the signed MOA are not eligible for reimbursement. E&E retains the right to partially fund projects if so specified in the MOA.

Maximum Funding Assistance for Replacement of this Bus(\$)

375,000

Project Details (5 of 8)

Diesel-Powered School Bus;`EngineModelYear`

Answer the following questions for each vehicle to be replaced. Click the "Add New Project Details" button at the end of this section for each additional vehicle.

Existing Vehicle Details

Existing Vehicle Type

Diesel-Powered School Bus

Typical Function of Existing Bus Involved in the Proposed Project

The existing bus is used daily (Monday through Friday) on a route, picking up students for school and delivering them home. It is also occasionally used for in town field trips and shuttles.

Existing Bus Operation Frequency and Time of Use

The existing bus is used 180 days out of the year (while school in session, Monday through Friday). It is used roughly 3 1/2 hours a day, but sometimes more.

In which County or Counties is the Existing Vehicle or Equipment Involved in the Proposed Project Typically Operated?

Crawford

On-Highway Weight Class

Class 7: 26,001 – 33,000 lbs.

Vehicle Identification Number

1BABMCBA5NF051559

Vehicle Make

Blue Bird

Vehicle Model

All American

Vehicle Model Year

1992

Highway Engine Information (Complete one row for each engine that powers the existing vehicle)

Engine Serial Number	Engine Family Name	Engine Make	Engine Model	Engine Model Year	Horsepower	Fuel Type	Fuel Used (gallons per year)
2BK18731	NA	Caterpillar	3116	1992	250	Ultra-Low Sulfur Diesel (ULSD)	1642
							Sum: 1642

Annual Miles Traveled

Year	Annual Miles (Miles per Year)
2020	13140
2021	13140
	Average: 13140

Number of days operated per week (on average) in 2020 and 2021

5

Remaining Life (Years)

4

New Vehicle Details

Replacement Bus Fuel Type

All-Electric

Percentage of Time the Affected Equipment will be Operated in Arkansas

100

Emission Reductions Anticipated from the Proposed Project

EPA's Diesel Emission Quantifier may be used to quantify the emissions benefit anticipated from the proposed project. This tool is freely available from the EPA website.

[Click here to access EPA's Diesel Emission Quantifier.](#)

Estimated Emissions Reductions

Pollutant	Annual Tons Reduced	Lifetime Annual Tons Reduced
Nitrogen Oxides (NOx)	.174	.695
Fine Particulate (PM2.5)	.007	.026

Pollutant	Annual Tons Reduced	Lifetime Annual Tons Reduced
Hydrocarbons (HC)	.018	.07
Carbon Monoxide (CO)	.043	.171
Carbon Dioxide (CO2)	11.9	47.8
	Sum: 12.142	Sum: 48.762

Describe the methodology used to calculate estimated emissions reductions from the proposed project.

We used the Diesel Emissions Quantifier from the EPA Website.

Maximum Funding Assistance for this Replacement Bus

The maximum funding assistance value for eligible project costs associated with replacement of this bus is calculated based on user inputs.

Projects selected for award under this program will receive reimbursement for eligible project costs or the maximum funding assistance value, whichever is less, upon completion of the project and receipt by E&E of all required documents. The maximum funding assistance and terms for reimbursement shall be established in a Memorandum of Agreement (MOA) signed by E&E and selected project sponsors. Expenses that pre-date the signed MOA are not eligible for reimbursement. E&E retains the right to partially fund projects if so specified in the MOA.

Maximum Funding Assistance for Replacement of this Bus(\$)

375,000

Project Details (6 of 8)

Diesel-Powered School Bus;`EngineModelYear`

Answer the following questions for each vehicle to be replaced. Click the "Add New Project Details" button at the end of this section for each additional vehicle.

Existing Vehicle Details

Existing Vehicle Type

Diesel-Powered School Bus

Typical Function of Existing Bus Involved in the Proposed Project

The existing bus is used daily (Monday through Friday) on a route, picking up students for school and delivering them home. It is also occasionally used for in town field trips and shuttles.

Existing Bus Operation Frequency and Time of Use

The existing bus is used 180 days out of the year (while school in session, Monday through Friday). It is used roughly 3 1/2 hours a day, but sometimes more.

In which County or Counties is the Existing Vehicle or Equipment Involved in the Proposed Project Typically Operated?

Crawford

On-Highway Weight Class

Class 7: 26,001 – 33,000 lbs.

Vehicle Identification Number

1BABMCBA6NF051568

Vehicle Make

Blue Bird

Vehicle Model

All American

Vehicle Model Year

1992

Highway Engine Information (Complete one row for each engine that powers the existing vehicle)

Engine Serial Number	Engine Family Name	Engine Make	Engine Model	Engine Model Year	Horsepower	Fuel Type	Fuel Used (gallons per year)
2BK18688	NA	Caterpillar	3116	1992	250	Ultra-Low Sulfur Diesel (ULSD)	625
							Sum: 625

Annual Miles Traveled

Year	Annual Miles (Miles per Year)
2020	5000
2021	5000
	Average: 5000

Number of days operated per week (on average) in 2020 and 2021

5

Remaining Life (Years)

4

New Vehicle Details

Replacement Bus Fuel Type

All-Electric

Percentage of Time the Affected Equipment will be Operated in Arkansas

100

Emission Reductions Anticipated from the Proposed Project

EPA's Diesel Emission Quantifier may be used to quantify the emissions benefit anticipated from the proposed project. This tool is freely available from the EPA website.

[Click here to access EPA's Diesel Emission Quantifier.](#)

Estimated Emissions Reductions

Pollutant	Annual Tons Reduced	Lifetime Annual Tons Reduced
Nitrogen Oxides (NOx)	.174	.695
Fine Particulate (PM2.5)	.007	.026
Hydrocarbons (HC)	.018	.07
Carbon Monoxide (CO)	.043	.171
Carbon Dioxide (CO2)	11.9	47.8
	Sum: 12.142	Sum: 48.762

Describe the methodology used to calculate estimated emissions reductions from the proposed project.

We used the Diesel Emissions Quantifier from the EPA Website.

Maximum Funding Assistance for this Replacement Bus

The maximum funding assistance value for eligible project costs associated with replacement of this bus is calculated based on user inputs.

Projects selected for award under this program will receive reimbursement for eligible project costs or the maximum funding assistance value, whichever is less, upon completion of the project and receipt by E&E of all required documents. The maximum funding assistance and terms for reimbursement shall be established in a Memorandum of Agreement (MOA) signed by E&E and selected project sponsors. Expenses that pre-date the signed MOA are not eligible for reimbursement. E&E retains the right to partially fund projects if so specified in the MOA.

Maximum Funding Assistance for Replacement of this Bus(\$)

375,000

Project Details (7 of 8)

Diesel-Powered School Bus;`EngineModelYear`

Answer the following questions for each vehicle to be replaced. Click the "Add New Project Details" button at the end of this section for each additional vehicle.

Existing Vehicle Details

Existing Vehicle Type

Diesel-Powered School Bus

Typical Function of Existing Bus Involved in the Proposed Project

The existing bus is used daily (Monday through Friday) on a route, picking up students for school and delivering them home. It is also occasionally used for in town field trips and shuttles.

Existing Bus Operation Frequency and Time of Use

The existing bus is used 180 days out of the year (while school in session, Monday through Friday). It is used roughly 3 1/2 hours a day, but sometimes more.

In which County or Counties is the Existing Vehicle or Equipment Involved in the Proposed Project Typically Operated?

Crawford

On-Highway Weight Class

Class 7: 26,001 – 33,000 lbs.

Vehicle Identification Number

1BABMCBA3NF051561

Vehicle Make

Blue Bird

Vehicle Model

All American

Vehicle Model Year

1992

Highway Engine Information (Complete one row for each engine that powers the existing vehicle)

Engine Serial Number	Engine Family Name	Engine Make	Engine Model	Engine Model Year	Horsepower	Fuel Type	Fuel Used (gallons per year)
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Engine Serial Number	Engine Family Name	Engine Make	Engine Model	Engine Model Year	Horsepower	Fuel Type	Fuel Used (gallons per year)
2BK18672	NA	Caterpillar	3116	1992	250	Ultra-Low Sulfur Diesel (ULSD)	608
							Sum: 608

Annual Miles Traveled

Year	Annual Miles (Miles per Year)
2020	4860
2021	4860
	Average: 4860

Number of days operated per week (on average) in 2020 and 2021

5

Remaining Life (Years)

4

New Vehicle Details

Replacement Bus Fuel Type

All-Electric

Percentage of Time the Affected Equipment will be Operated in Arkansas

100

Emission Reductions Anticipated from the Proposed Project

EPA's Diesel Emission Quantifier may be used to quantify the emissions benefit anticipated from the proposed project. This tool is freely available from the EPA website.

[Click here to access EPA's Diesel Emission Quantifier.](#)

Estimated Emissions Reductions

Pollutant	Annual Tons Reduced	Lifetime Annual Tons Reduced
Nitrogen Oxides (NOx)	.174	.695
Fine Particulate (PM2.5)	.007	.026
Hydrocarbons (HC)	.018	.07
Carbon Monoxide (CO)	.043	.171

Pollutant	Annual Tons Reduced	Lifetime Annual Tons Reduced
Carbon Dioxide (CO2)	11.9	47.8
	Sum: 12.142	Sum: 48.762

Describe the methodology used to calculate estimated emissions reductions from the proposed project.

We used the Diesel Emissions Quantifier from the EPA Website.

Maximum Funding Assistance for this Replacement Bus

The maximum funding assistance value for eligible project costs associated with replacement of this bus is calculated based on user inputs.

Projects selected for award under this program will receive reimbursement for eligible project costs or the maximum funding assistance value, whichever is less, upon completion of the project and receipt by E&E of all required documents. The maximum funding assistance and terms for reimbursement shall be established in a Memorandum of Agreement (MOA) signed by E&E and selected project sponsors. Expenses that pre-date the signed MOA are not eligible for reimbursement. E&E retains the right to partially fund projects if so specified in the MOA.

Maximum Funding Assistance for Replacement of this Bus(\$)

375,000

Project Details (8 of 8)

Diesel-Powered School Bus;`EngineModelYear`

Answer the following questions for each vehicle to be replaced. Click the "Add New Project Details" button at the end of this section for each additional vehicle.

Existing Vehicle Details

Existing Vehicle Type

Diesel-Powered School Bus

Typical Function of Existing Bus Involved in the Proposed Project

The existing bus is used daily (Monday through Friday) on a route, picking up students for school and delivering them home. It is also occasionally used for in town field trips and shuttles.

Existing Bus Operation Frequency and Time of Use

The existing bus is used 180 days out of the year (while school in session, Monday through Friday). It is used roughly 3 1/2 hours a day, but sometimes more.

In which County or Counties is the Existing Vehicle or Equipment Involved in the Proposed Project Typically Operated?

Crawford

On-Highway Weight Class

Class 7: 26,001 – 33,000 lbs.

Vehicle Identification Number

1BABMCBA3NF051558

Vehicle Make

Blue Bird

Vehicle Model

All American

Vehicle Model Year

1992

Highway Engine Information (Complete one row for each engine that powers the existing vehicle)

Engine Serial Number	Engine Family Name	Engine Make	Engine Model	Engine Model Year	Horsepower	Fuel Type	Fuel Used (gallons per year)
2BK18730	NA	Caterpillar	3116	1992	250	Ultra-Low Sulfur Diesel (ULSD)	495
							Sum: 495

Annual Miles Traveled

Year	Annual Miles (Miles per Year)
2020	3960
2021	3960
	Average: 3960

Number of days operated per week (on average) in 2020 and 2021

5

Remaining Life (Years)

4

New Vehicle Details

Replacement Bus Fuel Type

All-Electric

Percentage of Time the Affected Equipment will be Operated in Arkansas

100

Emission Reductions Anticipated from the Proposed Project

EPA's Diesel Emission Quantifier may be used to quantify the emissions benefit anticipated from the proposed project. This tool is freely available from the EPA website.

[Click here to access EPA's Diesel Emission Quantifier.](#)

Estimated Emissions Reductions

Pollutant	Annual Tons Reduced	Lifetime Annual Tons Reduced
Nitrogen Oxides (NOx)	.174	.695
Fine Particulate (PM2.5)	.007	.026
Hydrocarbons (HC)	.018	.07
Carbon Monoxide (CO)	.043	.171
Carbon Dioxide (CO2)	11.9	47.8
	Sum: 12.142	Sum: 48.762

Describe the methodology used to calculate estimated emissions reductions from the proposed project.

We used the Diesel Emissions Quantifier from the EPA Website.

Maximum Funding Assistance for this Replacement Bus

The maximum funding assistance value for eligible project costs associated with replacement of this bus is calculated based on user inputs.

Projects selected for award under this program will receive reimbursement for eligible project costs or the maximum funding assistance value, whichever is less, upon completion of the project and receipt by E&E of all required documents. The maximum funding assistance and terms for reimbursement shall be established in a Memorandum of Agreement (MOA) signed by E&E and selected project sponsors. Expenses that pre-date the signed MOA are not eligible for reimbursement. E&E retains the right to partially fund projects if so specified in the MOA.

Maximum Funding Assistance for Replacement of this Bus(\$)

375,000

Project Benefits

Describe how this project will reduce environmental risks to economically-disadvantaged and other populations with disproportionately high and adverse human health or environmental impacts.

There are many benefits to this project for the economically disadvantaged and to those with disproportionately high and adverse human health conditions.

--Zero tailpipe pollution -- students, drivers, and members of the community will be exposed to significantly less harmful diesel emissions like PM and NOX.

--Our particular buses that we will be replacing are 1992 models. They produce a considerable amount of more emissions than our newer models.

Electric buses would also greatly help the loading and unloading situation at schools. With no emissions, it will be healthier for students and duty teachers at these locations.

--Reduced greenhouse gas emissions compared to diesel school buses

This includes reduced idle time during pick up and drop off at schools where other vehicles are waiting for child pick up behind the buses. This time could exceed 15 minutes during the winter while buses remain at idle to keep bus internal temperature to code.

--Quiet, clean operation

With a quieter operation, noise pollution will be reduced, which will in turn reduce overall noise levels on the bus. For many in our special needs population, the excessive noise on a conventional school bus is difficult for them. With reduced noise levels, the students of this population will have a better ride.

Describe how this project will reduce environmental risks to the public and sensitive populations.

--Zero tailpipe pollution -- students, drivers, and members of the community will be exposed to significantly less harmful diesel emissions like PM and NOX.

--Our particular buses that we will be replacing are 1992 models. They produce a considerable amount of more emissions than our newer models.

Electric buses would also greatly help the loading and unloading situation at schools. With no emissions, it will be healthier for students and duty teachers at these locations.

-Reduced greenhouse gas emissions compared to diesel school buses

This includes reduced idle time during pick up and drop of at schools where other vehicles are waiting for child pick up behind the buses. This time could exceed 15 minutes during the winter while buses remain at idle to keep bus internal temperature to code.

--Quiet, clean operation

With a quieter operation, noise pollution will be reduced, which will in turn reduce overall noise levels on the bus. For many in our special needs population, the excessive noise on a conventional school bus is difficult for them. With reduced noise levels, the students of this population will have a better ride.

Describe how the project will contribute to the widespread adoption of alternative fuels and advance the establishment of alternative fuel corridors.

We currently serve as a leader within our region of the state in regard to other programs within the school transportation sector. I serve as a third party tester, so many districts look to us to test their drivers for CDL. We also serve as a regional driver training center, helping districts to comply with the new ELDT standards in driver training.

We are located within 30 yards of Interstate 40 in Alma, AR. The EV Buses would be lined up to their charging station with full visibility of this process from one of the main corridors through Arkansas.

Describe any other benefits this project would produce for the community.

We feel like this project would add many benefits to our community besides those mentioned above. First, we feel like the new buses can serve as an educational tool within our district. As students in various grades learn about alternative fuels and electrification of vehicles, they would have opportunities to ride and view those vehicles. Moreover, advanced students in the upper grades could have the opportunity to help with cost analyses of diesel versus electric.

Second, we feel like we could serve as a catalyst within our community to achieve a higher EV adoption rate. Once parents, and students, saw the efficiency of the buses, as well as their reliability, individual families would lean in favor of greater adoption within their homes and workplaces.

Third, as our district reaps the benefits of the EV buses, our district leaders will see the benefits and will be more ready to adopt the use of EV buses as we continue to phase out older buses.

Fourth, as the district realizes the savings of a diesel bus, other programs within the district would have greater funds available for use.

Partnerships

Partnerships between the applicant and other organizations that advance deployment of alternative fuel stations or public charging infrastructure, or that fund additional vehicle replacements beyond those replaced under the ABC program are strongly encouraged. Partnerships that result in additional publicly available alternative fueling stations or publicly available DC fast chargers within two miles of a designated alternative-fuel corridor or in an underserved area are highly desirable. For the purposes of the ABC program, an underserved area is a location within the state where there are no existing alternative fuel or charging stations to support the replacement vehicles funded under the ABC program within fifty (50) miles of the project.

A full list of designated alternative fuel corridors are listed at https://www.fhwa.dot.gov/environment/alternative_fuel_corridors/all_corridors/.

Existing alternative fueling stations and electric vehicle infrastructure can be identified using the United States Department of Energy's Alternative Fueling Station Locator: <https://afdc.energy.gov/stations/#/find/nearest>.

NOTE: No funding is available under this program for the construction of alternative fuel stations and the ABC program will only fund the applicable percentage of one depot charger per bus for projects that replace eligible diesel buses with all-electric buses.

Describe any partnerships with other programs associated with this project, if applicable. Include contact information for a representative from any partner organizations.

We are working closely with OGE to provide extra electric to the bus garage. OGE will be running three phase lines to our charging area at no cost to the district. Contact: Kris Halmes, 479-430-9447

We have not yet hired a contractor to lay the electric and install the charging stations. We plan to use Proterra systems for charging.

Infrastructure Availability

Infrastructure.docx - 10/21/2022 03:25 PM

Comment

I had hoped to have a letter from OGE with their commitment and plans, but I have not yet received the written confirmation. They have told us, however, that 3 phase electric will be run to our bus garage at no cost to the district. They said it will take 3-4 months to complete from the time we put in the request.

Project Milestones

Identify each step necessary to complete the project and milestones for completing each step. Typical steps have been included as defaults. You can revise, add, or remove steps.

Project Step	Estimated Date (MM/DD/YY)
New vehicles ordered	2/15/2023
New vehicles delivered	11/15/2023
Old vehicles scrapped	11/30/2023
NONE PROVIDED	12/1/2023
NONE PROVIDED	2/1/2023
NONE PROVIDED	2/20/2023
NONE PROVIDED	3/15/2023
NONE PROVIDED	7/12/2023
NONE PROVIDED	8/15/2023

Describe your approach to achieving project milestones.

Timeline for Completing Project

Official Award Notification--February 1, 2023

February 15, 2023--Order 8 buses

February 20-May 15, 2023—Run three phase to shop building—OGE will be providing at no cost to the district

March 15, 2023—Hire contractor to: run electric from new transformer box to charging stations; to install pads; to install charging stations—complete all projects by September

May 15, 2023—begin laying electric run from transformer to charging station locations

July 12, 2023—complete electric project

August 15, 2023—install charging stations

September 30, 2023—complete infrastructure work

November 15, 2023--New buses delivered

November 30, 2023--Old buses scrapped

December 1, 2023--Final Report and Reimbursement Request to DEQ

Total Funding Assistance Requested Summary

Total Number of Vehicles

8

Maximum Funding Amount That Can Be Requested from DEQ (\$)

3000000

Funding Amount Requested from DEQ (\$)

3000000

Attachments

Date	Attachment Name	Context	User
10/21/2022 3:25 PM	Infrastructure.docx	Attachment	Jason Rutherford

Internal Data

Label	Value
Completeness Check	
Application Complete	Yes
Application Selected for Funding by Selection Committee?	Select
MOA Executed	

Label	Value
Reimbursement Packet Received	
Payment Sent	

Status History

	User	Processing Status
8/17/2022 11:54:12 AM	Jason Rutherford	Draft
10/21/2022 3:29:00 PM	Jason Rutherford	Submitting
10/21/2022 3:29:17 PM	Jason Rutherford	Submitted
10/24/2022 1:47:29 PM	Mikayla Shaddon	Deemed Complete

Audit

Event	Event Description	Event By	Event Date
Submission Locked	Submission Locked	Mikayla Shaddon	10/24/2022 8:41 AM

Processing Steps

Step Name	Assigned To/Completed By	Date Completed
Form Submitted	Jason Rutherford	10/21/2022 3:29:17 PM
Ensure that all steps have been assigned to the appropriate staff member	Mikayla Shaddon	10/24/2022 8:40:46 AM
Set Submission Assigned Staff in Internal Controls	Mikayla Shaddon	10/24/2022 8:40:59 AM
Select Begin Review to Lock the Submission	Mikayla Shaddon	10/24/2022 8:41:06 AM
Application Completeness and Eligibility Review -If more information is needed or the project is ineligible, insert ineligible or incomplete work flow template between this step and the next step. If complete and eligible, proceed to the next step.	Mikayla Shaddon	10/24/2022 1:47:29 PM
Provide Application to Evaluation Committee	Mikayla Shaddon	

Step Name	Assigned To/Completed By	Date Completed
After reviewing all applications received, proceed with the next steps if this application is recommended for funding. Otherwise, delete remaining steps and insert "Not recommended" workflow.	Mikayla Shaddon	
Notification of Award Recommendation	Mikayla Shaddon	
Prepare MOA & Route via P&P form	Mikayla Shaddon	
Change the Submission Status to "Issued"	Mikayla Shaddon	

Advanced Bus and Clean (ABC) Transportation Program

version 2.5

(Submission #: HPN-H0FX-739RV, version 2)

Details

Submitted	11/1/2022 (19 days ago) by Phillip Lloyd
Applicant	Jacksonville North Pulaski school District
Submission ID	HPN-H0FX-739RV
Submission Assigned Staff	Mikayla Shaddon
Status	Deemed Complete
Active Steps	Provide Application to Evaluation Committee

Form Input

Applicant Information

Applicant Organization Name
Jacksonville North Pulaski school District

Type of Organization
School District

Applicant Organization Mailing Address
2310 N REDMOND RD
JACKSONVILLE, AR 72076

Organizational DUNS number
080260704

Congressional District
2nd

If you do not know your congressional district, you can find this information at <https://argis.ualr.edu/DistrictFinder/index.html>.
[Click here to be directed to the UALR District Finder](#)

Project Manager Contact Information

First Name	Last Name	
Gary	Beck	
Title		
Director of Transportation		
Phone Type	Number	Extension
Business	501-241-2163	
Email		
Gbeck@jnpsd.org		
Fax		
NONE PROVIDED		

Description of Applicant's Organization

Describe the work typically performed by the Applicant Organization

JNPSD transports 3000 students 178 days a year. We have 145 trips using 40 buses; 6 of them are spares used when any bus goes down. We also use buses to transport students to various school-approved field trips. We have three mechanics on duty all year to service and maintain our fleet of buses and district cars.

Number of Persons Employed by the Applicant Organization

60

Number of Years Applicant Organization Has Been in Existence in Arkansas

12

Describe any Energy or Environmental Conservation Measures that the Applicant Organization Already Practices

JNPSD has a policy where our buses will not idle for longer than 10 minutes per route. This policy ensures that we use less fuel and exhaust fumes are kept to a minimum. We also use Hydrotex HyFilm LEO EPD 5W-30, which exceeds the VW 504.00/507.00 specification and provides outstanding durability, cleanliness, wear protection, exhaust after-treatment, and system compatibility. Using HyFilm LEO EPD 5W-30 offers light-duty diesel engines with low SAPS1 for compatibility with diesel exhaust treatment systems, improved fuel economy, and extended drain intervals. Volkswagen (VW) 504.00/507.00 lubricants are considered the most technically advanced and highest-performing engine oils in the world today. We also have three new LPG buses in our fleet.

Describe any Past Performance in Successfully Completing and Managing Projects Similar in Size, Scope, and Relevance to the Proposed Project

On a daily basis, we are adding and editing up to 5 to 8 scholars every day to our 188 routes. Our mechanics' service and maintain 40 buses and 22 district-owned cars, trucks, and vans. We log the mileage of every vehicle used in our fleet. In addition to our daily routes, we provide transportation for an average of 300 field trips per school year. These trips go all over Pulaski County and the state of Arkansas. With this in mind, we believe we can effectively manage a program of this size.

Project Details (1 of 10)

Diesel-Powered School Bus;`EngineModelYear`

Answer the following questions for each vehicle to be replaced. Click the "Add New Project Details" button at the end of this section for each additional vehicle.

Existing Vehicle Details

Existing Vehicle Type

Diesel-Powered School Bus

Typical Function of Existing Bus Involved in the Proposed Project

To transport as many as 3000 students to and from their homes, one of our seven schools in Pulaski County, and an average of 500 field trips per year, all within the State of Arkansas.

Existing Bus Operation Frequency and Time of Use

JNPSD uses our buses Monday- Friday on an average of 180 days per year. Routes are AM and PM, lasting about 6 hours per day. We also use them for field trips throughout the year. In the summer, we have around five buses running Monday- Friday AM and PM, lasting approximately 3 hours daily.

In which County or Counties is the Existing Vehicle or Equipment Involved in the Proposed Project Typically Operated?

Pulaski

On-Highway Weight Class

Class 7: 26,001 – 33,000 lbs.

Vehicle Identification Number

4DRBUAAN37A506922

Vehicle Make

INTERNATIONAL

Vehicle Model

CE 300

Vehicle Model Year

2006

Highway Engine Information (Complete one row for each engine that powers the existing vehicle)

Engine Serial Number	Engine Family Name	Engine Make	Engine Model	Engine Model Year	Horsepower	Fuel Type	Fuel Used (gallons per year)
466HM2U2142076	6NVXH0466AEA	INTERNATIONAL	DT466	2006	210	Ultra-Low Sulfur Diesel (ULSD)	700
							Sum: 700

PROCESSING ISSUE (CLOSED)

Engine family name correction needed

The engine family name can be found on the engine tag and should contain approximately 12 characters. Please verify the engine family name.

Created on 10/27/2022 1:09 PM by Mikayla Shaddon

Annual Miles Traveled

Year	Annual Miles (Miles per Year)
2020	7500
2021	6500
	Average: 7000

Number of days operated per week (on average) in 2020 and 2021

3

Remaining Life (Years)

3

New Vehicle Details

Replacement Bus Fuel Type

LPG

Percentage of Time the Affected Equipment will be Operated in Arkansas

100

Emission Reductions Anticipated from the Proposed Project

EPA's Diesel Emission Quantifier may be used to quantify the emissions benefit anticipated from the proposed project. This tool is freely available from the EPA website.

[Click here to access EPA's Diesel Emission Quantifier.](#)

Estimated Emissions Reductions

Pollutant	Annual Tons Reduced	Lifetime Annual Tons Reduced
Nitrogen Oxides (NOx)	92.6	926
Fine Particulate (PM2.5)	97.4	974
Hydrocarbons (HC)	95.1	951
Carbon Monoxide (CO)	-27.1	-271
Carbon Dioxide (CO2)	0	0
	Sum: 258	Sum: 2580

Describe the methodology used to calculate estimated emissions reductions from the proposed project.

We utilized the formulae provided at <https://cfpub.epa.gov/quantifier/index.cfm?action=fleet.view> using the following information in the group, which yielded the results for the percentage of emissions reduced:

Type: Onroad

Target Fleet: School Bus

Quantity: 1

Baseline Engine Model Year: 2006

Baseline Fuel Type: ULSD (diesel)

Annual Fuel Gallons: 1360

Diesel-equivalent Gallons: 1360

Annual Miles Traveled: 14084

Annual Idling Hours: 107

Upgrade Year: 2024

Remaining Life of Baseline Engine/Vehicle: 3

In the Upgrade

Type: Vehicle Replacement

Upgrade: Replace – LPG/Propane

New Engine Model Year 2024

New Annual Fuel Volume (per engine) 2092

New Diesel-equivalent Gallons 1360

Upgrade Cost Per Unit \$ 12,000

Labor Cost Per Unit \$ 0.0

Percent of Emissions Reduced

NOx 92.6

PM2.5 97.4

HC 95.1

CO -27.1

CO2 0

Maximum Funding Assistance for this Replacement Bus

The maximum funding assistance value for eligible project costs associated with replacement of this bus is calculated based on user inputs.

Projects selected for award under this program will receive reimbursement for eligible project costs or the maximum funding assistance value, whichever is less, upon completion of the project and receipt by E&E of all required documents. The maximum funding assistance and terms for reimbursement shall be established in a Memorandum of Agreement (MOA) signed by E&E and selected project sponsors. Expenses that pre-date the signed MOA are not eligible for reimbursement. E&E retains the right to partially fund projects if so specified in the MOA.

Maximum Funding Assistance for Replacement of this Bus(\$)
98,000

Project Details (2 of 10)

Diesel-Powered School Bus;`EngineModelYear`

Answer the following questions for each vehicle to be replaced. Click the "Add New Project Details" button at the end of this section for each additional vehicle.

Existing Vehicle Details

Existing Vehicle Type
Diesel-Powered School Bus

Typical Function of Existing Bus Involved in the Proposed Project
To transport as many as 3000 students to and from their homes, one of our seven schools in Pulaski County, and an average of 500 field trips per year, all within the State of Arkansas.

Existing Bus Operation Frequency and Time of Use
JNPSD uses our buses Monday- Friday on an average of 180 days per year. Routes are AM and PM, lasting about 6 hours per day. We also use them for field trips throughout the year. In the summer, we have around five buses running Monday- Friday AM and PM, lasting approximately 3 hours daily.

In which County or Counties is the Existing Vehicle or Equipment Involved in the Proposed Project Typically Operated?
Pulaski

On-Highway Weight Class
Class 7: 26,001 – 33,000 lbs.

Vehicle Identification Number
4DRBUAAN67A506915

Vehicle Make
INTERNATIONAL

Vehicle Model
CE 300

Vehicle Model Year
2007

Highway Engine Information (Complete one row for each engine that powers the existing vehicle)

Engine Serial Number	Engine Family Name	Engine Make	Engine Model	Engine Model Year	Horsepower	Fuel Type	Fuel Used (gallons per year)
466HM2U2143158	6NVXH0466AEA	INTERNATIONAL	DT 466	2007	210	Ultra-Low Sulfur Diesel (ULSD)	800
							Sum: 800

PROCESSING ISSUE (CLOSED)

Engine family name correction

The engine family name can be found on the engine tag and should contain approximately 12 characters.
Please verify the engine family name.

Created on 10/27/2022 1:09 PM by **Mikayla Shaddon**

Annual Miles Traveled

Year	Annual Miles (Miles per Year)
2020	8000
2021	6500
	Average: 7250

Number of days operated per week (on average) in 2020 and 2021

4

Remaining Life (Years)

3

New Vehicle Details

Replacement Bus Fuel Type

LPG

Percentage of Time the Affected Equipment will be Operated in Arkansas

100

Emission Reductions Anticipated from the Proposed Project

EPA's Diesel Emission Quantifier may be used to quantify the emissions benefit anticipated from the proposed project. This tool is freely available from the EPA website.

[Click here to access EPA's Diesel Emission Quantifier.](#)

Estimated Emissions Reductions

Pollutant	Annual Tons Reduced	Lifetime Annual Tons Reduced
Nitrogen Oxides (NOx)	85.2	852
Fine Particulate (PM2.5)	22.4	224
Hydrocarbons (HC)	81.8	818
Carbon Monoxide (CO)	-335.5	-3355
Carbon Dioxide (CO2)	0	0
	Sum: -146.1	Sum: -1461

Describe the methodology used to calculate estimated emissions reductions from the proposed project.

We utilized the formulae provided at <https://cfpub.epa.gov/quantifier/index.cfm?action=fleet.view> using the following information in the group, which yielded the results for the percentage of emissions reduced:

Type: Onroad
Target Fleet: School Bus
Quantity: 1
Baseline Engine Model Year: 2007
Baseline Fuel Type: ULSD (diesel)
Annual Fuel Gallons: 1360
Diesel-equivalent Gallons: 1360
Annual Miles Traveled: 14084
Annual Idling Hours: 107
Upgrade Year: 2024
Remaining Life of Baseline Engine/Vehicle: 3
In the Upgrade
Type: Vehicle Replacement
Upgrade: Replace – LPG/Propane
New Engine Model Year 2024
New Annual Fuel Volume (per engine) 2092
New Diesel-equivalent Gallons 1360
Upgrade Cost Per Unit \$ 12,000
Labor Cost Per Unit \$ 0.0
Percent of Emissions Reduced
NOx 85.2
PM2.5 22.4
HC 81.8
CO -335.5
CO2 0

Maximum Funding Assistance for this Replacement Bus

The maximum funding assistance value for eligible project costs associated with replacement of this bus is calculated based on user inputs.

Projects selected for award under this program will receive reimbursement for eligible project costs or the maximum funding assistance value, whichever is less, upon completion of the project and receipt by E&E of all required documents. The maximum funding assistance and terms for reimbursement shall be established in a Memorandum of Agreement (MOA) signed by E&E and selected project sponsors. Expenses that pre-date the signed MOA are not eligible for reimbursement. E&E retains the right to partially fund projects if so specified in the MOA.

Maximum Funding Assistance for Replacement of this Bus(\$)

98,000

Project Details (3 of 10)

Diesel-Powered School Bus;`EngineModelYear`

Answer the following questions for each vehicle to be replaced. Click the "Add New Project Details" button at the end of this section for each additional vehicle.

Existing Vehicle Details

Existing Vehicle Type

Diesel-Powered School Bus

Typical Function of Existing Bus Involved in the Proposed Project

To transport as many as 3000 students to and from their homes, one of our seven schools in Pulaski County, and an average of 500 field trips per year, all within the State of Arkansas.

Existing Bus Operation Frequency and Time of Use

JNPSD uses our buses Monday- Friday on an average of 180 days per year. Routes are AM and PM, lasting about 6 hours per day. We also use them for field trips throughout the year. In the summer, we have around five buses running Monday- Friday AM and PM, lasting approximately 3 hours daily.

In which County or Counties is the Existing Vehicle or Equipment Involved in the Proposed Project Typically Operated?

Pulaski

On-Highway Weight Class

Class 6: 19,501 – 26,000 lbs.

Vehicle Identification Number

1BAKBCPA58F252820

Vehicle Make

BLUE BIRD

Vehicle Model

VISION

Vehicle Model Year

2008

Highway Engine Information (Complete one row for each engine that powers the existing vehicle)

Engine Serial Number	Engine Family Name	Engine Make	Engine Model	Engine Model Year	Horsepower	Fuel Type	Fuel Used (gallons per year)
46741858	8CEXHO408BAF	CUMMINS	ISB 200	2008	200	Ultra-Low Sulfur Diesel (ULSD)	700
							Sum: 700

Annual Miles Traveled

Year	Annual Miles (Miles per Year)
2020	7500
2021	6500
	Average: 7000

Number of days operated per week (on average) in 2020 and 2021

3

Remaining Life (Years)

3

New Vehicle Details

Replacement Bus Fuel Type

LPG

Percentage of Time the Affected Equipment will be Operated in Arkansas

100

Emission Reductions Anticipated from the Proposed Project

EPA's Diesel Emission Quantifier may be used to quantify the emissions benefit anticipated from the proposed project. This tool is freely available from the EPA website.

[Click here to access EPA's Diesel Emission Quantifier.](#)

Estimated Emissions Reductions

Pollutant	Annual Tons Reduced	Lifetime Annual Tons Reduced
Nitrogen Oxides (NOx)	85.2	852
Fine Particulate (PM2.5)	22.4	224
Hydrocarbons (HC)	81.8	818
Carbon Monoxide (CO)	-335.5	-3355
Carbon Dioxide (CO2)	0	0
	Sum: -146.1	Sum: -1461

Describe the methodology used to calculate estimated emissions reductions from the proposed project.

We utilized the formulae provided at <https://cfpub.epa.gov/quantifier/index.cfm?action=fleet.view> using the following information in the group, which yielded the results for the percentage of emissions reduced:

Type: Onroad

Target Fleet: School Bus

Quantity: 1

Baseline Engine Model Year: 2008

Baseline Fuel Type: ULSD (diesel)

Annual Fuel Gallons: 1360

Diesel-equivalent Gallons: 1360

Annual Miles Traveled: 14084

Annual Idling Hours: 107

Upgrade Year: 2024

Remaining Life of Baseline Engine/Vehicle: 3

In the Upgrade

Type: Vehicle Replacement

Upgrade: Replace – LPG/Propane

New Engine Model Year 2024

New Annual Fuel Volume (per engine) 2092

New Diesel-equivalent Gallons 1360

Upgrade Cost Per Unit \$ 12,000

Labor Cost Per Unit \$ 0.0

Percent of Emissions Reduced

NOx 85.2

PM2.5 22.4

HC 81.8

CO -335.5

CO2 0

Maximum Funding Assistance for this Replacement Bus

The maximum funding assistance value for eligible project costs associated with replacement of this bus is calculated based on user inputs.

Projects selected for award under this program will receive reimbursement for eligible project costs or the maximum funding assistance value, whichever is less, upon completion of the project and receipt by E&E of all required documents. The maximum funding assistance and terms for reimbursement shall be established in a Memorandum of Agreement (MOA) signed by E&E and selected project sponsors. Expenses that pre-date the signed MOA are not eligible for reimbursement. E&E retains the right to partially fund projects if so specified in the MOA.

Maximum Funding Assistance for Replacement of this Bus(\$)

98,000

Project Details (4 of 10)

Diesel-Powered School Bus;`EngineModelYear`

Answer the following questions for each vehicle to be replaced. Click the "Add New Project Details" button at the end of this section for each additional vehicle.

Existing Vehicle Details

Existing Vehicle Type

Diesel-Powered School Bus

Typical Function of Existing Bus Involved in the Proposed Project

To transport as many as 3000 students to and from their homes, one of our seven schools in Pulaski County, and an average of 500 field trips per year, all within the State of Arkansas.

Existing Bus Operation Frequency and Time of Use

JNPSD uses our buses Monday- Friday on an average of 180 days per year. Routes are AM and PM, lasting about 6 hours per day. We also use them for field trips throughout the year. In the summer, we have around five buses running Monday- Friday AM and PM, lasting approximately 3 hours daily.

In which County or Counties is the Existing Vehicle or Equipment Involved in the Proposed Project Typically Operated?

Pulaski

On-Highway Weight Class

Class 7: 26,001 – 33,000 lbs.

Vehicle Identification Number

1BAKF CPA79F262271

Vehicle Make

BLUE BIRD

Vehicle Model

VISION

Vehicle Model Year

2008

Highway Engine Information (Complete one row for each engine that powers the existing vehicle)

Engine Serial Number	Engine Family Name	Engine Make	Engine Model	Engine Model Year	Horsepower	Fuel Type	Fuel Used (gallons per year)
46910095	8CEXHO408BAF	CUMMINS	ISB 200	2008	200	Ultra-Low Sulfur Diesel (ULSD)	700
							Sum: 700

Annual Miles Traveled

Year	Annual Miles (Miles per Year)
2020	8000
2021	6000
	Average: 7000

Number of days operated per week (on average) in 2020 and 2021

3

Remaining Life (Years)

3

New Vehicle Details

Replacement Bus Fuel Type

LPG

Percentage of Time the Affected Equipment will be Operated in Arkansas

100

Emission Reductions Anticipated from the Proposed Project

EPA's Diesel Emission Quantifier may be used to quantify the emissions benefit anticipated from the proposed project. This tool is freely available from the EPA website.

[Click here to access EPA's Diesel Emission Quantifier.](#)

Estimated Emissions Reductions

Pollutant	Annual Tons Reduced	Lifetime Annual Tons Reduced
Nitrogen Oxides (NOx)	85.2	852
Fine Particulate (PM2.5)	22.4	224
Hydrocarbons (HC)	81.8	818
Carbon Monoxide (CO)	-335.5	-3355
Carbon Dioxide (CO2)	0	0
	Sum: -146.1	Sum: -1461

Describe the methodology used to calculate estimated emissions reductions from the proposed project.

We utilized the formulae provided at <https://cfpub.epa.gov/quantifier/index.cfm?action=fleet.view> using the following information in the group, which yielded the results for the percentage of emissions reduced:

Type: Onroad

Target Fleet: School Bus

Quantity: 1

Baseline Engine Model Year: 2008

Baseline Fuel Type: ULSD (diesel)

Annual Fuel Gallons: 1360

Diesel-equivalent Gallons: 1360

Annual Miles Traveled: 14084

Annual Idling Hours: 107

Upgrade Year: 2024

Remaining Life of Baseline Engine/Vehicle: 3

In the Upgrade

Type: Vehicle Replacement

Upgrade: Replace – LPG/Propane

New Engine Model Year 2024

New Annual Fuel Volume (per engine) 2092

New Diesel-equivalent Gallons 1360

Upgrade Cost Per Unit \$ 12,000

Labor Cost Per Unit \$ 0.0

Percent of Emissions Reduced

NOx 85.2

PM2.5 22.4

HC 81.8

CO -335.5

CO2 0

Maximum Funding Assistance for this Replacement Bus

The maximum funding assistance value for eligible project costs associated with replacement of this bus is calculated based on user inputs.

Projects selected for award under this program will receive reimbursement for eligible project costs or the maximum funding assistance value, whichever is less, upon completion of the project and receipt by E&E of all required documents. The maximum funding assistance and terms for reimbursement shall be established in a Memorandum of Agreement (MOA) signed by E&E and selected project sponsors. Expenses that pre-date the signed MOA are not eligible for reimbursement. E&E retains the right to partially fund projects if so specified in the MOA.

Maximum Funding Assistance for Replacement of this Bus(\$)

98,000

Project Details (5 of 10)

Diesel-Powered School Bus; `EngineModelYear`

Answer the following questions for each vehicle to be replaced. Click the "Add New Project Details" button at the end of this section for each additional vehicle.

Existing Vehicle Details

Existing Vehicle Type

Diesel-Powered School Bus

Typical Function of Existing Bus Involved in the Proposed Project

To transport as many as 3000 students to and from their homes, one of our seven schools in Pulaski County, and an average of 500 field trips per year, all within the State of Arkansas.

Existing Bus Operation Frequency and Time of Use

JNPSD uses our buses Monday- Friday on an average of 180 days per year. Routes are AM and PM, lasting about 6 hours per day. We also use them for field trips throughout the year. In the summer, we have around five buses running Monday- Friday AM and PM, lasting approximately 3 hours daily.

In which County or Counties is the Existing Vehicle or Equipment Involved in the Proposed Project Typically Operated?

Pulaski

On-Highway Weight Class

Class 7: 26,001 – 33,000 lbs.

Vehicle Identification Number

4DRBUAAN87A506933

Vehicle Make

INTERNATIONAL

Vehicle Model

CE 300

Vehicle Model Year

2006

Highway Engine Information (Complete one row for each engine that powers the existing vehicle)

Engine Serial Number	Engine Family Name	Engine Make	Engine Model	Engine Model Year	Horsepower	Fuel Type	Fuel Used (gallons per year)
466HM2U2142091	6NVXH0466AEA	INTERNATIONAL	DT466	2006	210	Ultra-Low Sulfur Diesel (ULSD)	800
							Sum: 800

PROCESSING ISSUE (CLOSED)

Engine family name correction

The engine family name can be found on the engine tag and should contain approximately 12 characters.
Please verify the engine family name.

Created on 10/27/2022 1:10 PM by **Mikayla Shaddon**

Annual Miles Traveled

Year	Annual Miles (Miles per Year)
2020	9000
2021	6000
	Average: 7500

Number of days operated per week (on average) in 2020 and 2021

5

Remaining Life (Years)

3

New Vehicle Details

Replacement Bus Fuel Type

LPG

Percentage of Time the Affected Equipment will be Operated in Arkansas

100

Emission Reductions Anticipated from the Proposed Project

EPA's Diesel Emission Quantifier may be used to quantify the emissions benefit anticipated from the proposed project. This tool is freely available from the EPA website.

[Click here to access EPA's Diesel Emission Quantifier.](#)

Estimated Emissions Reductions

Pollutant	Annual Tons Reduced	Lifetime Annual Tons Reduced
Nitrogen Oxides (NOx)	92.6	926
Fine Particulate (PM2.5)	97.4	974
Hydrocarbons (HC)	95.1	951
Carbon Monoxide (CO)	-27.1	-271
Carbon Dioxide (CO2)	0	0
	Sum: 258	Sum: 2580

Describe the methodology used to calculate estimated emissions reductions from the proposed project.

We utilized the formulae provided at <https://cfpub.epa.gov/quantifier/index.cfm?action=fleet.view> using the following information in the group, which yielded the results for the percentage of emissions reduced:

Type: Onroad
Target Fleet: School Bus
Quantity: 1
Baseline Engine Model Year: 2006
Baseline Fuel Type: ULSD (diesel)
Annual Fuel Gallons: 1360
Diesel-equivalent Gallons: 1360
Annual Miles Traveled: 14084
Annual Idling Hours: 107
Upgrade Year: 2024
Remaining Life of Baseline Engine/Vehicle: 3
In the Upgrade
Type: Vehicle Replacement
Upgrade: Replace – LPG/Propane
New Engine Model Year 2024
New Annual Fuel Volume (per engine) 2092
New Diesel-equivalent Gallons 1360
Upgrade Cost Per Unit \$ 12,000
Labor Cost Per Unit \$ 0.0
Percent of Emissions Reduced
NOx 92.6
PM2.5 97.4
HC 95.1
CO -27.1
CO2 0

Maximum Funding Assistance for this Replacement Bus

The maximum funding assistance value for eligible project costs associated with replacement of this bus is calculated based on user inputs.

Projects selected for award under this program will receive reimbursement for eligible project costs or the maximum funding assistance value, whichever is less, upon completion of the project and receipt by E&E of all required documents. The maximum funding assistance and terms for reimbursement shall be established in a Memorandum of Agreement (MOA) signed by E&E and selected project sponsors. Expenses that pre-date the signed MOA are not eligible for reimbursement. E&E retains the right to partially fund projects if so specified in the MOA.

Maximum Funding Assistance for Replacement of this Bus(\$)

98,000

Project Details (6 of 10)**Diesel-Powered School Bus;`EngineModelYear`**

Answer the following questions for each vehicle to be replaced. Click the "Add New Project Details" button at the end of this section for each additional vehicle.

Existing Vehicle Details

Existing Vehicle Type

Diesel-Powered School Bus

Typical Function of Existing Bus Involved in the Proposed Project

To transport as many as 3000 students to and from their homes, one of our seven schools in Pulaski County, and an average of 500 field trips per year, all within the State of Arkansas.

Existing Bus Operation Frequency and Time of Use

JNPSD uses our buses Monday- Friday on an average of 180 days per year. Routes are AM and PM, lasting about 6 hours per day. We also use them for field trips throughout the year. In the summer, we have around five buses running Monday- Friday AM and PM, lasting approximately 3 hours daily.

In which County or Counties is the Existing Vehicle or Equipment Involved in the Proposed Project Typically Operated?

Pulaski

On-Highway Weight Class

Class 7: 26,001 – 33,000 lbs.

Vehicle Identification Number

4DRBUAAN37A506936

Vehicle Make

INTERNATIONAL

Vehicle Model

CE 300

Vehicle Model Year

2006

Highway Engine Information (Complete one row for each engine that powers the existing vehicle)

Engine Serial Number	Engine Family Name	Engine Make	Engine Model	Engine Model Year	Horsepower	Fuel Type	Fuel Used (gallons per year)
466HM2U2142093	6NVXH0466AEA	INTERNATIONAL	DT466	2006	210	Ultra-Low Sulfur Diesel (ULSD)	700
							Sum: 700

PROCESSING ISSUE (CLOSED)

Engine family name correction

The engine family name can be found on the engine tag and should contain approximately 12 characters. Please verify the engine family name.

Created on 10/27/2022 1:11 PM by **Mikayla Shaddon**

Annual Miles Traveled

Year	Annual Miles (Miles per Year)
2020	7000
2021	7000
	Average: 7000

Number of days operated per week (on average) in 2020 and 2021

4

Remaining Life (Years)

3

New Vehicle Details

Replacement Bus Fuel Type

LPG

Percentage of Time the Affected Equipment will be Operated in Arkansas

100

Emission Reductions Anticipated from the Proposed Project

EPA's Diesel Emission Quantifier may be used to quantify the emissions benefit anticipated from the proposed project. This tool is freely available from the EPA website.

[Click here to access EPA's Diesel Emission Quantifier.](#)

Estimated Emissions Reductions

Pollutant	Annual Tons Reduced	Lifetime Annual Tons Reduced
Nitrogen Oxides (NOx)	92.6	926
Fine Particulate (PM2.5)	97.4	974
Hydrocarbons (HC)	95.1	951
Carbon Monoxide (CO)	-27.1	-271
Carbon Dioxide (CO2)	0	0
	Sum: 258	Sum: 2580

Describe the methodology used to calculate estimated emissions reductions from the proposed project.

We utilized the formulae provided at <https://cfpub.epa.gov/quantifier/index.cfm?action=fleet.view> using the following information in the group, which yielded the results for the percentage of emissions reduced:

Type: Onroad

Target Fleet: School Bus

Quantity: 1

Baseline Engine Model Year: 2006

Baseline Fuel Type: ULSD (diesel)

Annual Fuel Gallons: 1360

Diesel-equivalent Gallons: 1360

Annual Miles Traveled: 14084

Annual Idling Hours: 107

Upgrade Year: 2024

Remaining Life of Baseline Engine/Vehicle: 3

In the Upgrade

Type: Vehicle Replacement

Upgrade: Replace – LPG/Propane

New Engine Model Year 2024

New Annual Fuel Volume (per engine) 2092

New Diesel-equivalent Gallons 1360

Upgrade Cost Per Unit \$ 12,000

Labor Cost Per Unit \$ 0.0

Percent of Emissions Reduced

NOx 92.6

PM2.5 97.4

HC 95.1

CO -27.1

CO2 0

Maximum Funding Assistance for this Replacement Bus

The maximum funding assistance value for eligible project costs associated with replacement of this bus is calculated based on user inputs.

Projects selected for award under this program will receive reimbursement for eligible project costs or the maximum funding assistance value, whichever is less, upon completion of the project and receipt by E&E of all required documents. The maximum funding assistance and terms for reimbursement shall be established in a Memorandum of Agreement (MOA) signed by E&E and selected project sponsors. Expenses that pre-date the signed MOA are not eligible for reimbursement. E&E retains the right to partially fund projects if so specified in the MOA.

Maximum Funding Assistance for Replacement of this Bus(\$)

98,000

Project Details (7 of 10)

Diesel-Powered School Bus;`EngineModelYear`

Answer the following questions for each vehicle to be replaced. Click the "Add New Project Details" button at the end of this section for each additional vehicle.

Existing Vehicle Details

Existing Vehicle Type

Diesel-Powered School Bus

Typical Function of Existing Bus Involved in the Proposed Project

To transport as many as 3000 students to and from their homes, one of our seven schools in Pulaski County, and an average of 500 field trips per year, all within the State of Arkansas.

Existing Bus Operation Frequency and Time of Use

JNPSD uses our buses Monday- Friday on an average of 180 days per year. Routes are AM and PM, lasting about 6 hours per day. We also use them for field trips throughout the year. In the summer, we have around five buses running Monday- Friday AM and PM, lasting approximately 3 hours daily.

In which County or Counties is the Existing Vehicle or Equipment Involved in the Proposed Project Typically Operated?

Pulaski

On-Highway Weight Class

Class 7: 26,001 – 33,000 lbs.

Vehicle Identification Number

4DRBUAAN17A506935

Vehicle Make

INTERNATIONAL

Vehicle Model

CE 300

Vehicle Model Year

2006

Highway Engine Information (Complete one row for each engine that powers the existing vehicle)

Engine Serial Number	Engine Family Name	Engine Make	Engine Model	Engine Model Year	Horsepower	Fuel Type	Fuel Used (gallons per year)
466HM2U2142102	6NVXH0466AEA	INTERNATIONAL	DT466	2006	210	Ultra-Low Sulfur Diesel (ULSD)	700
							Sum: 700

PROCESSING ISSUE (CLOSED)

Engine family name correction

The engine family name can be found on the engine tag and should contain approximately 12 characters.
Please verify the engine family name.

Created on 10/27/2022 1:11 PM by **Mikayla Shaddon**

Annual Miles Traveled

Year	Annual Miles (Miles per Year)
2020	8000
2021	6000
	Average: 7000

Number of days operated per week (on average) in 2020 and 2021

4

Remaining Life (Years)

3

New Vehicle Details

Replacement Bus Fuel Type

LPG

Percentage of Time the Affected Equipment will be Operated in Arkansas

100

Emission Reductions Anticipated from the Proposed Project

EPA's Diesel Emission Quantifier may be used to quantify the emissions benefit anticipated from the proposed project. This tool is freely available from the EPA website.

[Click here to access EPA's Diesel Emission Quantifier.](#)

Estimated Emissions Reductions

Pollutant	Annual Tons Reduced	Lifetime Annual Tons Reduced
Nitrogen Oxides (NOx)	92.6	926
Fine Particulate (PM2.5)	97.4	974
Hydrocarbons (HC)	95.1	951
Carbon Monoxide (CO)	-27.1	-271
Carbon Dioxide (CO2)	0	0
	Sum: 258	Sum: 2580

Describe the methodology used to calculate estimated emissions reductions from the proposed project.

We utilized the formulae provided at <https://cfpub.epa.gov/quantifier/index.cfm?action=fleet.view> using the following information in the group, which yielded the results for the percentage of emissions reduced:

Type: Onroad
Target Fleet: School Bus
Quantity: 1
Baseline Engine Model Year: 2006
Baseline Fuel Type: ULSD (diesel)
Annual Fuel Gallons: 1360
Diesel-equivalent Gallons: 1360
Annual Miles Traveled: 14084
Annual Idling Hours: 107
Upgrade Year: 2024
Remaining Life of Baseline Engine/Vehicle: 3
In the Upgrade
Type: Vehicle Replacement
Upgrade: Replace – LPG/Propane
New Engine Model Year 2024
New Annual Fuel Volume (per engine) 2092
New Diesel-equivalent Gallons 1360
Upgrade Cost Per Unit \$ 12,000
Labor Cost Per Unit \$ 0.0
Percent of Emissions Reduced
NOx 92.6
PM2.5 97.4
HC 95.1
CO -27.1
CO2 0

Maximum Funding Assistance for this Replacement Bus

The maximum funding assistance value for eligible project costs associated with replacement of this bus is calculated based on user inputs.

Projects selected for award under this program will receive reimbursement for eligible project costs or the maximum funding assistance value, whichever is less, upon completion of the project and receipt by E&E of all required documents. The maximum funding assistance and terms for reimbursement shall be established in a Memorandum of Agreement (MOA) signed by E&E and selected project sponsors. Expenses that pre-date the signed MOA are not eligible for reimbursement. E&E retains the right to partially fund projects if so specified in the MOA.

Maximum Funding Assistance for Replacement of this Bus(\$)

98,000

Project Details (8 of 10)**Diesel-Powered School Bus;`EngineModelYear`**

Answer the following questions for each vehicle to be replaced. Click the "Add New Project Details" button at the end of this section for each additional vehicle.

Existing Vehicle Details

Existing Vehicle Type

Diesel-Powered School Bus

Typical Function of Existing Bus Involved in the Proposed Project

To transport as many as 3000 students to and from their homes, one of our seven schools in Pulaski County, and an average of 500 field trips per year, all within the State of Arkansas.

Existing Bus Operation Frequency and Time of Use

JNPSD uses our buses Monday- Friday on an average of 180 days per year. Routes are AM and PM, lasting about 6 hours per day. We also use them for field trips throughout the year. In the summer, we have around five buses running Monday- Friday AM and PM, lasting approximately 3 hours daily.

In which County or Counties is the Existing Vehicle or Equipment Involved in the Proposed Project Typically Operated?

Pulaski

On-Highway Weight Class

Class 7: 26,001 – 33,000 lbs.

Vehicle Identification Number

4DRBUAAN08A501596

Vehicle Make

INTERNATIONAL

Vehicle Model

CE 300

Vehicle Model Year

2006

Highway Engine Information (Complete one row for each engine that powers the existing vehicle)

Engine Serial Number	Engine Family Name	Engine Make	Engine Model	Engine Model Year	Horsepower	Fuel Type	Fuel Used (gallons per year)
466HM2U2149102	6NVXH0466AEA	INTERNATIONAL	DT466	2006	210	Ultra-Low Sulfur Diesel (ULSD)	900
							Sum: 900

PROCESSING ISSUE (CLOSED)

Engine family name correction

The engine family name can be found on the engine tag and should contain approximately 12 characters. Please verify the engine family name.

Created on 10/27/2022 1:11 PM by **Mikayla Shaddon**

Annual Miles Traveled

Year	Annual Miles (Miles per Year)
2020	9000
2021	9000
	Average: 9000

Number of days operated per week (on average) in 2020 and 2021

5

Remaining Life (Years)

3

New Vehicle Details

Replacement Bus Fuel Type

LPG

Percentage of Time the Affected Equipment will be Operated in Arkansas

100

Emission Reductions Anticipated from the Proposed Project

EPA's Diesel Emission Quantifier may be used to quantify the emissions benefit anticipated from the proposed project. This tool is freely available from the EPA website.

[Click here to access EPA's Diesel Emission Quantifier.](#)

Estimated Emissions Reductions

Pollutant	Annual Tons Reduced	Lifetime Annual Tons Reduced
Nitrogen Oxides (NOx)	92.6	926
Fine Particulate (PM2.5)	97.4	974
Hydrocarbons (HC)	95.1	951
Carbon Monoxide (CO)	-27.1	-271
Carbon Dioxide (CO2)	0	0
	Sum: 258	Sum: 2580

Describe the methodology used to calculate estimated emissions reductions from the proposed project.

We utilized the formulae provided at <https://cfpub.epa.gov/quantifier/index.cfm?action=fleet.view> using the following information in the group, which yielded the results for the percentage of emissions reduced:

Type: Onroad

Target Fleet: School Bus

Quantity: 1

Baseline Engine Model Year: 2006

Baseline Fuel Type: ULSD (diesel)

Annual Fuel Gallons: 1360

Diesel-equivalent Gallons: 1360

Annual Miles Traveled: 14084

Annual Idling Hours: 107

Upgrade Year: 2024

Remaining Life of Baseline Engine/Vehicle: 3

In the Upgrade

Type: Vehicle Replacement

Upgrade: Replace – LPG/Propane

New Engine Model Year 2024

New Annual Fuel Volume (per engine) 2092

New Diesel-equivalent Gallons 1360

Upgrade Cost Per Unit \$ 12,000

Labor Cost Per Unit \$ 0.0

Percent of Emissions Reduced

NOx 92.6

PM2.5 97.4

HC 95.1

CO -27.1

CO2 0

Maximum Funding Assistance for this Replacement Bus

The maximum funding assistance value for eligible project costs associated with replacement of this bus is calculated based on user inputs.

Projects selected for award under this program will receive reimbursement for eligible project costs or the maximum funding assistance value, whichever is less, upon completion of the project and receipt by E&E of all required documents. The maximum funding assistance and terms for reimbursement shall be established in a Memorandum of Agreement (MOA) signed by E&E and selected project sponsors. Expenses that pre-date the signed MOA are not eligible for reimbursement. E&E retains the right to partially fund projects if so specified in the MOA.

Maximum Funding Assistance for Replacement of this Bus(\$)

98,000

Project Details (9 of 10)

Diesel-Powered School Bus; `EngineModelYear`

Answer the following questions for each vehicle to be replaced. Click the "Add New Project Details" button at the end of this section for each additional vehicle.

Existing Vehicle Details

Existing Vehicle Type

Diesel-Powered School Bus

Typical Function of Existing Bus Involved in the Proposed Project

To transport as many as 3000 students to and from their homes, one of our seven schools in Pulaski County, and an average of 500 field trips per year, all within the State of Arkansas.

Existing Bus Operation Frequency and Time of Use

JNPSD uses our buses Monday- Friday on an average of 180 days per year. Routes are AM and PM, lasting about 6 hours per day. We also use them for field trips throughout the year. In the summer, we have around five buses running Monday- Friday AM and PM, lasting approximately 3 hours daily.

In which County or Counties is the Existing Vehicle or Equipment Involved in the Proposed Project Typically Operated?

Pulaski

On-Highway Weight Class

Class 7: 26,001 – 33,000 lbs.

Vehicle Identification Number

4DRBUAAN98A501595

Vehicle Make

INTERNATIONAL

Vehicle Model

CE 300

Vehicle Model Year

2006

Highway Engine Information (Complete one row for each engine that powers the existing vehicle)

Engine Serial Number	Engine Family Name	Engine Make	Engine Model	Engine Model Year	Horsepower	Fuel Type	Fuel Used (gallons per year)
466HM2U2152392	6NVXH0466AEA	INTERNATIONAL	DT466	2006	210	Ultra-Low Sulfur Diesel (ULSD)	700
							Sum: 700

PROCESSING ISSUE (CLOSED)

Engine family name correction

The engine family name can be found on the engine tag and should contain approximately 12 characters.
Please verify the engine family name.

Created on 10/27/2022 1:12 PM by **Mikayla Shaddon**

Annual Miles Traveled

Year	Annual Miles (Miles per Year)
2020	8000
2021	6000
	Average: 7000

Number of days operated per week (on average) in 2020 and 2021

4

Remaining Life (Years)

3

New Vehicle Details

Replacement Bus Fuel Type

LPG

Percentage of Time the Affected Equipment will be Operated in Arkansas

100

Emission Reductions Anticipated from the Proposed Project

EPA's Diesel Emission Quantifier may be used to quantify the emissions benefit anticipated from the proposed project. This tool is freely available from the EPA website.

[Click here to access EPA's Diesel Emission Quantifier.](#)

Estimated Emissions Reductions

Pollutant	Annual Tons Reduced	Lifetime Annual Tons Reduced
Nitrogen Oxides (NOx)	92.6	926
Fine Particulate (PM2.5)	97.4	974
Hydrocarbons (HC)	95.1	951
Carbon Monoxide (CO)	-27.1	-271
Carbon Dioxide (CO2)	0	0
	Sum: 258	Sum: 2580

Describe the methodology used to calculate estimated emissions reductions from the proposed project.

We utilized the formulae provided at <https://cfpub.epa.gov/quantifier/index.cfm?action=fleet.view> using the following information in the group, which yielded the results for the percentage of emissions reduced:

Type: Onroad
Target Fleet: School Bus
Quantity: 1
Baseline Engine Model Year: 2006
Baseline Fuel Type: ULSD (diesel)
Annual Fuel Gallons: 1360
Diesel-equivalent Gallons: 1360
Annual Miles Traveled: 14084
Annual Idling Hours: 107
Upgrade Year: 2024
Remaining Life of Baseline Engine/Vehicle: 3
In the Upgrade
Type: Vehicle Replacement
Upgrade: Replace – LPG/Propane
New Engine Model Year 2024
New Annual Fuel Volume (per engine) 2092
New Diesel-equivalent Gallons 1360
Upgrade Cost Per Unit \$ 12,000
Labor Cost Per Unit \$ 0.0
Percent of Emissions Reduced
NOx 92.6
PM2.5 97.4
HC 95.1
CO -27.1
CO2 0

Maximum Funding Assistance for this Replacement Bus

The maximum funding assistance value for eligible project costs associated with replacement of this bus is calculated based on user inputs.

Projects selected for award under this program will receive reimbursement for eligible project costs or the maximum funding assistance value, whichever is less, upon completion of the project and receipt by E&E of all required documents. The maximum funding assistance and terms for reimbursement shall be established in a Memorandum of Agreement (MOA) signed by E&E and selected project sponsors. Expenses that pre-date the signed MOA are not eligible for reimbursement. E&E retains the right to partially fund projects if so specified in the MOA.

Maximum Funding Assistance for Replacement of this Bus(\$)

98,000

Project Details (10 of 10)**Diesel-Powered School Bus;`EngineModelYear`**

Answer the following questions for each vehicle to be replaced. Click the "Add New Project Details" button at the end of this section for each additional vehicle.

Existing Vehicle Details

Existing Vehicle Type

Diesel-Powered School Bus

Typical Function of Existing Bus Involved in the Proposed Project

To transport as many as 3000 students to and from their homes, one of our seven schools in Pulaski County, and an average of 500 field trips per year, all within the State of Arkansas.

Existing Bus Operation Frequency and Time of Use

JNPSD uses our buses Monday- Friday on an average of 180 days per year. Routes are AM and PM, lasting about 6 hours per day. We also use them for field trips throughout the year. In the summer, we have around five buses running Monday- Friday AM and PM, lasting approximately 3 hours daily.

In which County or Counties is the Existing Vehicle or Equipment Involved in the Proposed Project Typically Operated?

Pulaski

On-Highway Weight Class

Class 7: 26,001 – 33,000 lbs.

Vehicle Identification Number

4DRBUAANO7A506926

Vehicle Make

INTERNATIONAL

Vehicle Model

CE 300

Vehicle Model Year

2006

Highway Engine Information (Complete one row for each engine that powers the existing vehicle)

Engine Serial Number	Engine Family Name	Engine Make	Engine Model	Engine Model Year	Horsepower	Fuel Type	Fuel Used (gallons per year)
466HM2U2142066	6NVXH0466AEA	INTERNATIONAL	DT466	2006	210	Ultra-Low Sulfur Diesel (ULSD)	700
							Sum: 700

PROCESSING ISSUE (CLOSED)

Engine family name correction

The engine family name can be found on the engine tag and should contain approximately 12 characters. Please verify the engine family name.

Created on 10/27/2022 1:12 PM by Mikayla Shaddon

Annual Miles Traveled

Year	Annual Miles (Miles per Year)
2020	7000
2021	7000
	Average: 7000

Number of days operated per week (on average) in 2020 and 2021

5

Remaining Life (Years)

3

New Vehicle Details

Replacement Bus Fuel Type

LPG

Percentage of Time the Affected Equipment will be Operated in Arkansas

100

Emission Reductions Anticipated from the Proposed Project

EPA's Diesel Emission Quantifier may be used to quantify the emissions benefit anticipated from the proposed project. This tool is freely available from the EPA website.

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Estimated Emissions Reductions

Pollutant	Annual Tons Reduced	Lifetime Annual Tons Reduced
Nitrogen Oxides (NOx)	92.6	926
Fine Particulate (PM2.5)	97.4	974
Hydrocarbons (HC)	95.1	951
Carbon Monoxide (CO)	-27.1	-271
Carbon Dioxide (CO2)	0	0
	Sum: 258	Sum: 2580

Describe the methodology used to calculate estimated emissions reductions from the proposed project.

We utilized the formulae provided at <https://cfpub.epa.gov/quantifier/index.cfm?action=fleet.view> using the following information in the group, which yielded the results for the percentage of emissions reduced:

Type: Onroad

Target Fleet: School Bus

Quantity: 1

Baseline Engine Model Year: 2006

Baseline Fuel Type: ULSD (diesel)

Annual Fuel Gallons: 1360

Diesel-equivalent Gallons: 1360

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Upgrade Year: 2024

Remaining Life of Baseline Engine/Vehicle: 3

In the Upgrade

Type: Vehicle Replacement

Upgrade: Replace – LPG/Propane

New Engine Model Year 2024

New Annual Fuel Volume (per engine) 2092

New Diesel-equivalent Gallons 1360

Upgrade Cost Per Unit \$ 12,000

Labor Cost Per Unit \$ 0.0

Percent of Emissions Reduced

NOx 92.6

PM2.5 97.4

HC 95.1

CO -27.1

CO2 0

Maximum Funding Assistance for this Replacement Bus

The maximum funding assistance value for eligible project costs associated with replacement of this bus is calculated based on user inputs.

Projects selected for award under this program will receive reimbursement for eligible project costs or the maximum funding assistance value, whichever is less, upon completion of the project and receipt by E&E of all required documents. The maximum funding assistance and terms for reimbursement shall be established in a Memorandum of Agreement (MOA) signed by E&E and selected project sponsors. Expenses that pre-date the signed MOA are not eligible for reimbursement. E&E retains the right to partially fund projects if so specified in the MOA.

Maximum Funding Assistance for Replacement of this Bus(\$)

98,000

Project Benefits

Describe how this project will reduce environmental risks to economically-disadvantaged and other populations with disproportionately high and adverse human health or environmental impacts.

According to the EPA, greenhouse gases, which include carbon dioxide, methane, nitrous oxide, and fluorinated gases, are gases that trap heat in the atmosphere. While each contributes to climate change, emissions like nitrogen oxides (NOx), carbon monoxide, and particulate matter (PM) also pose a significant risk to human health and air quality. One of the most effective ways to reduce these harmful emissions is to transition school bus fleets to cleaner, safer fuel sources. NOx are highly reactive gases that the U.S. federal government regulates due to their harm to health and the environment. They trigger long-term health problems, such as asthma, bronchitis, and other respiratory issues, especially in children's developing lungs. Over the years, the EPA has set stricter emissions standards on NOx to limit its exposure. The primary source of NOx is motor vehicles.

According to a University of California Riverside study, diesel-fueled medium- and heavy-duty vehicles, including school buses, are the No. 1 source of NOx emissions in almost every single metropolitan region in the U.S. and research proves propane school buses, which are substantially lower in NOx than conventional fuels, are safer for the children riding in them and the communities in which they drive.

According to a West Virginia University study released in 2020, propane school buses reduce NOx by at least 95% compared with clean diesel. By lowering this toxic chemical, students may perform better inside the classroom.

Describe how this project will reduce environmental risks to the public and sensitive populations.

With propane autogas buses, students aren't exposed to the emissions from older diesel buses that can aggravate asthma and cause other health issues. The EPA also regulates PM, which creates severe lung and bronchial health problems. PM is the soot you see from vehicle exhaust, which is known to aggravate asthma and is identified as a carcinogen by the World Health Organization. Propane and modern diesel fuels virtually eliminate particulate matter. The significant difference is that, unlike modern diesel, propane eliminates it without adding maintenance burdens and extra costs to the end user. The public's exposure to particulate matter is greatly lessened or eliminated when using propane to fuel school buses. A recent Georgia State University study found diesel school bus fumes drove down test scores. The study correlated increased academic performance when children were exposed to lower levels of school bus emissions.

Describe how the project will contribute to the widespread adoption of alternative fuels and advance the establishment of alternative fuel corridors.

We plan to be one of the first school districts in Pulaski County to use propane, with plans to replace our fleet of 50 school buses with propane. With a filling station on our lot, we would be able to allow any school district that is or will be using propane to have a location to refuel their bus in northeast Pulaski County. We also hope to show other communities in Arkansas the benefits of changing to propane.

Describe any other benefits this project would produce for the community.

School buses fueled by propane autogas provide a reliable, clean, and affordable alternative to diesel. In a growing number of school bus fleets across the nation, school systems are choosing school buses fueled by propane autogas.

Utilizing propane autogas-fueled buses will reduce or eliminate diesel exhaust to better comply with Environmental Protection Agency ("EPA") regulations issued in 2004 and 2010 that require significant reductions in hydrocarbon, nitrogen oxide, and particulate matter emissions from heavy-duty diesel engines.

Also, the 1990 Clean Air Act designated propane as an approved Alternative Fuel. Lowering operating costs decreases emissions, and provides the most extended range of alternative fuels.

The EPA also regulates particulate matter ("PM") that creates severe lung and bronchial health problems. PM is the soot you see from vehicle exhaust, which aggravates asthma and is identified as a carcinogen by the World Health Organization.

Propane and modern diesel fuels virtually eliminate particulate matter. The significant difference is that, unlike modern diesel, propane eliminates it without adding maintenance burdens and extra costs to the end user. The public's exposure to particulate matter is greatly lessened or eliminated when using propane to fuel school buses.

Partnerships

Partnerships between the applicant and other organizations that advance deployment of alternative fuel stations or public charging infrastructure, or that fund additional vehicle replacements beyond those replaced under the ABC program are strongly encouraged. Partnerships that result in additional publicly available alternative fueling stations or publicly available DC fast chargers within two miles of a designated alternative-fuel corridor or in an underserved area are highly desirable. For the purposes of the ABC program, an underserved area is a location within the state where there are no existing alternative fuel or charging stations to support the replacement vehicles funded under the ABC program within fifty (50) miles of the project.

A full list of designated alternative fuel corridors are listed at https://www.fhwa.dot.gov/environment/alternative_fuel_corridors/all_corridors/.

Existing alternative fueling stations and electric vehicle infrastructure can be identified using the United States Department of Energy's Alternative Fueling Station Locator: <https://afdc.energy.gov/stations/#/find/nearest>.

NOTE: No funding is available under this program for the construction of alternative fuel stations and the ABC program will only fund the applicable percentage of one depot charger per bus for projects that replace eligible diesel buses with all-electric buses.

Describe any partnerships with other programs associated with this project, if applicable. Include contact information for a representative from any partner organizations.
NA

Infrastructure Availability

[LPGtank.pdf - 10/25/2022 10:43 AM](#)

Comment

LPG pumping station in place.

Project Milestones

Identify each step necessary to complete the project and milestones for completing each step. Typical steps have been included as defaults. You can revise, add, or remove steps.

Project Step	Estimated Date (MM/DD/YY)
Solicit bids in newspaper of statewide circulation	11/30/2022
Bid(s) awarded	1/6/2023
New vehicles ordered	2/28/2023
New vehicles delivered	9/30/2023
Old vehicles scrapped	10/27/2023
Final report and reimbursement request sent to DEQ	12/8/2023

Describe your approach to achieving project milestones.

We plan to have all the dates of the milestones in our transportation calendar with a 15-day reminder and a 5-day reminder before the posted deadline. Mr. Beck (Director of transportation) will manage all aspects of this plan. All transportation employees involved will receive email notifications of any deadlines for the milestones. We have received approval from our assistant superintendent to make an application for this program. Once the bid process is published, the bid will be awarded in 30 days. Upon awarding the bid, the bus will be ordered. At the end of the school year, our mechanics drill holes in the block and head of the replaced bus. The bus frame will be cut, and photographs will be taken for proof. The bus will then be towed away by the scrapyard at no charge.

Total Funding Assistance Requested Summary

Total Number of Vehicles

10

Maximum Funding Amount That Can Be Requested from DEQ (\$)

980000

Funding Amount Requested from DEQ (\$)

980000

Attachments

Date	Attachment Name	Context	User
10/25/2022 10:43 AM	LPGtank.pdf	Attachment	Phillip Lloyd

Internal Data

Label	Value
Completeness Check	
Application Complete	Yes
Application Selected for Funding by Selection Committee?	Select
MOA Executed	
Reimbursement Packet Received	
Payment Sent	

Status History

	User	Processing Status
10/31/2022 3:52:00 PM	Phillip Lloyd	Draft
11/1/2022 10:50:17 AM	Phillip Lloyd	Submitting
11/1/2022 10:50:32 AM	Phillip Lloyd	Submitted
11/1/2022 10:54:05 AM	Mikayla Shaddon	Deemed Complete

Audit

Event	Event Description	Event By	Event Date
Submission Locked	Submission Locked	Mikayla Shaddon	10/27/2022 12:51 PM
Submission Unlocked	Submission Unlocked	Mikayla Shaddon	10/27/2022 1:14 PM
Submission Locked	Submission Locked	Mikayla Shaddon	11/1/2022 10:52 AM

Processing Steps

Step Name	Assigned To/Completed By	Date Completed
Form Submitted	Phillip Lloyd	11/1/2022 10:50:32 AM
Ensure that all steps have been assigned to the appropriate staff member	Mikayla Shaddon	10/27/2022 12:51:17 PM
Set Submission Assigned Staff in Internal Controls	Mikayla Shaddon	10/27/2022 12:51:19 PM
Select Begin Review to Lock the Submission	Mikayla Shaddon	10/27/2022 12:51:26 PM
Application Completeness and Eligibility Review -If more information is needed or the project is ineligible, insert ineligible or incomplete work flow template between this step and the next step. If complete and eligible, proceed to the next step.	Mikayla Shaddon	11/1/2022 10:54:05 AM
Provide Application to Evaluation Committee	Mikayla Shaddon	

Step Name	Assigned To/Completed By	Date Completed
After reviewing all applications received, proceed with the next steps if this application is recommended for funding. Otherwise, delete remaining steps and insert "Not recommended" workflow.	Mikayla Shaddon	
Notification of Award Recommendation	Mikayla Shaddon	
Prepare MOA & Route via P&P form	Mikayla Shaddon	
Change the Submission Status to "Issued"	Mikayla Shaddon	

Revisions

Revision	Revision Date	Revision By
Revision 1	10/18/2022 7:26 AM	Phillip Lloyd
Revision 2	10/31/2022 3:52 PM	Phillip Lloyd

Advanced Bus and Clean (ABC) Transportation Program

version 2.5

(Submission #: HPM-9ZTA-Q2AKV, version 3)

Details

Submitted	11/1/2022 (19 days ago) by Charles W Blake
Applicant	PULASKI CO SPECIAL SCHOOL DIST
Submission ID	HPM-9ZTA-Q2AKV
Submission Assigned Staff	Mikayla Shaddon
Status	Deemed Complete
Active Steps	Provide Application to Evaluation Committee

Form Input

Applicant Information

Applicant Organization Name
PULASKI CO SPECIAL SCHOOL DIST

Type of Organization
School District

Applicant Organization Mailing Address
3924 NEELY RD
LITTLE ROCK, ARKANSAS 72206

Organizational DUNS number
716021158

Congressional District
2nd

If you do not know your congressional district, you can find this information at
<https://argis.ualr.edu/DistrictFinder/index.html>.
[Click here to be directed to the UALR District Finder](#)

Project Manager Contact Information

First Name	Last Name	
Charles	Blake	
Title		
Director of Transportation		
Phone Type	Number	Extension
Business	5016070802	
Email		
cblake@pcssd.org		
Fax		
NONE PROVIDED		

Description of Applicant's Organization

Describe the work typically performed by the Applicant Organization

The Pulaski County Special School District is a public school district with approximately 12,000 students. The District covers 644 square miles, has 26 schools, and operates its school bus transportation department with a fleet of 201 buses.

Number of Persons Employed by the Applicant Organization

2000

Number of Years Applicant Organization Has Been in Existence in Arkansas

95

Describe any Energy or Environmental Conservation Measures that the Applicant Organization Already Practices

All of our fueling sites are inspected each year by ADEQ regulated storage tanks division and each one is in good standing. The District operates an energy management system that sets back climate control points during non-operational as well as lighting controls in newer schools. Three new school campuses are LEED buildings. All campuses are smoke-free. 22 of the 25 school campuses participate in paper and plastic recycling programs as well as the recycling of cooking oils from the cafeterias. The school bus maintenance shops recycle bus oil and oil filters, as well as, recycling scrap metals in the bus shop.

Describe any Past Performance in Successfully Completing and Managing Projects Similar in Size, Scope, and Relevance to the Proposed Project

The Pulaski County Special School District currently operates 201 school buses 197 diesel-fueled and 4 LPG: Propane. We transport 70% of the students enrolled and 30,000 plus per year on the field and athletic trips. We perform the daily maintenance and fueling services for all buses

Project Details (1 of 20)

Diesel-Powered School Bus;`EngineModelYear`

Answer the following questions for each vehicle to be replaced. Click the "Add New Project Details" button at the end of this section for each additional vehicle.

Existing Vehicle Details

Existing Vehicle Type

Diesel-Powered School Bus

Typical Function of Existing Bus Involved in the Proposed Project

Transports students to and from schools and school functions on bus routes, on-field, and athletic trips.

Existing Bus Operation Frequency and Time of Use

The buses will operate 178 school days per year with routes running Monday-Friday from 5:30 AM-5:30 PM. The bus fleet covers 644 square miles per day in Pulaski County and all parts of the state for field and athletic trips. We run 440 routes per day and 78,320 routes per year.

In which County or Counties is the Existing Vehicle or Equipment Involved in the Proposed Project Typically Operated?

Pulaski

On-Highway Weight Class

Class 7: 26,001 – 33,000 lbs.

Vehicle Identification Number

4DRBUAAN17A506921

Vehicle Make

International

Vehicle Model

CE

Vehicle Model Year

2007

Highway Engine Information (Complete one row for each engine that powers the existing vehicle)

Engine Serial Number	Engine Family Name	Engine Make	Engine Model	Engine Model Year	Horsepower	Fuel Type	Fuel Used (gallons per year)
2U2142092	6NVXH0466AEA	International	D210	2006	210	Ultra-Low Sulfur Diesel (ULSD)	2766
							Sum: 2766

CORRECTION REQUEST (APPROVED)

Please verify engine family name.

Please verify engine family name. Engine family name should be present on engine tag and should consist of 12 characters.

Created on 10/31/2022 9:02 AM by **Mikayla Shaddon**

1 COMMENT

Charles W Blake (cblake@pcssd.org) (10/31/2022 1:59 PM)

According to the tag on the engine the engine family name is DT 466. I have attached an copy of one the engine tags to this grant.

Annual Miles Traveled

Year	Annual Miles (Miles per Year)
2020	1
2021	22126
	Average: 11063.5

Number of days operated per week (on average) in 2020 and 2021

5

Remaining Life (Years)

10

New Vehicle Details

Replacement Bus Fuel Type

LPG

Percentage of Time the Affected Equipment will be Operated in Arkansas

100

Emission Reductions Anticipated from the Proposed Project

EPA's Diesel Emission Quantifier may be used to quantify the emissions benefit anticipated from the proposed project. This tool is freely available from the EPA website.

[Click here to access EPA's Diesel Emission Quantifier.](#)

Estimated Emissions Reductions

Pollutant	Annual Tons Reduced	Lifetime Annual Tons Reduced
Nitrogen Oxides (NOx)	0.161	1.609
Fine Particulate (PM2.5)	0.012	0.116
Hydrocarbons (HC)	0.020	0.204
Carbon Monoxide (CO)	-0.027	-0.267
Carbon Dioxide (CO2)	0	0
	Sum: 0.166	Sum: 1.662

Describe the methodology used to calculate estimated emissions reductions from the proposed project.

This is the methodology used to calculate estimated emissions reductions from this proposed project. We calculated the amount of pollutants emitted from diesel fuel per gallon and multiply the number of gallons of diesel fuel used per year.

Then we took the amount of pollutants emitted from propane per gallon and multiply the number of gallons of propane used per year.

After getting the totals we subtracted the pollutants emitted per total gallons of propane per year from the total number of diesel gallons used per year.

Maximum Funding Assistance for this Replacement Bus

The maximum funding assistance value for eligible project costs associated with replacement of this bus is calculated based on user inputs.

Projects selected for award under this program will receive reimbursement for eligible project costs or the maximum funding assistance value, whichever is less, upon completion of the project and receipt by E&E

of all required documents. The maximum funding assistance and terms for reimbursement shall be established in a Memorandum of Agreement (MOA) signed by E&E and selected project sponsors. Expenses that pre-date the signed MOA are not eligible for reimbursement. E&E retains the right to partially fund projects if so specified in the MOA.

Maximum Funding Assistance for Replacement of this Bus(\$)

98,000

Project Details (2 of 20)

Diesel-Powered School Bus;`EngineModelYear`

Answer the following questions for each vehicle to be replaced. Click the "Add New Project Details" button at the end of this section for each additional vehicle.

Existing Vehicle Details

Existing Vehicle Type

Diesel-Powered School Bus

Typical Function of Existing Bus Involved in the Proposed Project

Transports students to and from schools and school functions on bus routes, on-field, and athletic trips.

Existing Bus Operation Frequency and Time of Use

The buses will operate 178 school days per year with routes running Monday-Friday from 5:30 AM-5:30 PM. The bus fleet covers 644 square miles per day in Pulaski County and all parts of the state for field and athletic trips. We run 440 routes per day and 78,320 routes per year.

In which County or Counties is the Existing Vehicle or Equipment Involved in the Proposed Project Typically Operated?

Pulaski

On-Highway Weight Class

Class 7: 26,001 – 33,000 lbs.

Vehicle Identification Number

4DRBUAAN97A506939

Vehicle Make

International

Vehicle Model

CE

Vehicle Model Year

2007

Highway Engine Information (Complete one row for each engine that powers the existing vehicle)

Engine Serial Number	Engine Family Name	Engine Make	Engine Model	Engine Model Year	Horsepower	Fuel Type	Fuel Used (gallons per year)

Engine Serial Number	Engine Family Name	Engine Make	Engine Model	Engine Model Year	Horsepower	Fuel Type	Fuel Used (gallons per year)
2U2142802	6NVXH0466AEA	International	D220	2006	220	Ultra-Low Sulfur Diesel (ULSD)	2490
							Sum: 2490

CORRECTION REQUEST (APPROVED)

Please verify engine family name.

Please verify engine family name. Engine family name should be present on engine tag and should consist of 12 characters.

Created on 10/31/2022 9:03 AM by **Mikayla Shaddon**

1 COMMENT

Charles W Blake (cblake@pcssd.org) (10/31/2022 1:59 PM)

According to the tag on the engine the engine family name is DT 466. I have attached an copy of one the engine tags to this grant.

Annual Miles Traveled

Year	Annual Miles (Miles per Year)
2020	9508
2021	19917
	Average: 14712.5

Number of days operated per week (on average) in 2020 and 2021

5

Remaining Life (Years)

10

New Vehicle Details

Replacement Bus Fuel Type

LPG

Percentage of Time the Affected Equipment will be Operated in Arkansas

100

Emission Reductions Anticipated from the Proposed Project

EPA's Diesel Emission Quantifier may be used to quantify the emissions benefit anticipated from the proposed project. This tool is freely available from the EPA website.

[Click here to access EPA's Diesel Emission Quantifier.](#)

Estimated Emissions Reductions

Pollutant	Annual Tons Reduced	Lifetime Annual Tons Reduced
Nitrogen Oxides (NOx)	0.109	1.088
Fine Particulate (PM2.5)	0.008	0.081
Hydrocarbons (HC)	0.014	0.140
Carbon Monoxide (CO)	-0.016	-0.162
Carbon Dioxide (CO2)	0	0
	Sum: 0.115	Sum: 1.147

Describe the methodology used to calculate estimated emissions reductions from the proposed project.

This is the methodology used to calculate estimated emissions reductions from this proposed project. We calculated the amount of pollutants emitted from diesel fuel per gallon and multiply the number of gallons of diesel fuel used per year.

Then we took the amount of pollutants emitted from propane per gallon and multiply the number of gallons of propane used per year.

After getting the totals we subtracted the pollutants emitted per total gallons of propane per year from the total number of diesel gallons used per year.

Maximum Funding Assistance for this Replacement Bus

The maximum funding assistance value for eligible project costs associated with replacement of this bus is calculated based on user inputs.

Projects selected for award under this program will receive reimbursement for eligible project costs or the maximum funding assistance value, whichever is less, upon completion of the project and receipt by E&E of all required documents. The maximum funding assistance and terms for reimbursement shall be established in a Memorandum of Agreement (MOA) signed by E&E and selected project sponsors. Expenses that pre-date the signed MOA are not eligible for reimbursement. E&E retains the right to partially fund projects if so specified in the MOA.

Maximum Funding Assistance for Replacement of this Bus(\$)

98,000

Project Details (3 of 20)

Diesel-Powered School Bus;`EngineModelYear`

Answer the following questions for each vehicle to be replaced. Click the "Add New Project Details" button at the end of this section for each additional vehicle.

Existing Vehicle Details

Existing Vehicle Type

Diesel-Powered School Bus

Typical Function of Existing Bus Involved in the Proposed Project

Transports students to and from schools and school functions on bus routes, on-field, and athletic trips.

Existing Bus Operation Frequency and Time of Use

The buses will operate 178 school days per year with routes running Monday-Friday from 5:30 AM-5:30 PM. The bus fleet covers 644 square miles per day in Pulaski County and all parts of the state for field and athletic trips. We run 440 routes per day and 78,320 routes per year.

In which County or Counties is the Existing Vehicle or Equipment Involved in the Proposed Project Typically Operated?

Pulaski

On-Highway Weight Class

Class 7: 26,001 – 33,000 lbs.

Vehicle Identification Number

1BABKBXA62F204390

Vehicle Make

Blue Bird

Vehicle Model

All American

Vehicle Model Year

2002

Highway Engine Information (Complete one row for each engine that powers the existing vehicle)

Engine Serial Number	Engine Family Name	Engine Make	Engine Model	Engine Model Year	Horsepower	Fuel Type	Fuel Used (gallons per year)
46106817	1CEXH0505CAP	Cummins	ISC 260	2001	260	Ultra-Low Sulfur Diesel (ULSD)	1224
							Sum: 1224

Annual Miles Traveled

Year	Annual Miles (Miles per Year)
2020	6576
2021	9789
	Average: 8182.5

Number of days operated per week (on average) in 2020 and 2021

5

Remaining Life (Years)

5

New Vehicle Details

Replacement Bus Fuel Type

LPG

Percentage of Time the Affected Equipment will be Operated in Arkansas

100

Emission Reductions Anticipated from the Proposed Project

EPA's Diesel Emission Quantifier may be used to quantify the emissions benefit anticipated from the proposed project. This tool is freely available from the EPA website.
[Click here to access EPA's Diesel Emission Quantifier.](#)

Estimated Emissions Reductions

Pollutant	Annual Tons Reduced	Lifetime Annual Tons Reduced
Nitrogen Oxides (NOx)	0.084	0.418
Fine Particulate (PM2.5)	0.006	0.028
Hydrocarbons (HC)	0.017	0.083
Carbon Monoxide (CO)	0	0
Carbon Dioxide (CO2)	0	0
	Sum: 0.107	Sum: 0.529

Describe the methodology used to calculate estimated emissions reductions from the proposed project.

This is the methodology used to calculate estimated emissions reductions from this proposed project. We calculated the amount of pollutants emitted from diesel fuel per gallon and multiply the number of gallons of diesel fuel used per year.

Then we took the amount of pollutants emitted from propane per gallon and multiply the number of gallons of propane used per year.

After getting the totals we subtracted the pollutants emitted per total gallons of propane per year from the total number of diesel gallons used per year.

Maximum Funding Assistance for this Replacement Bus

The maximum funding assistance value for eligible project costs associated with replacement of this bus is calculated based on user inputs.

Projects selected for award under this program will receive reimbursement for eligible project costs or the maximum funding assistance value, whichever is less, upon completion of the project and receipt by E&E of all required documents. The maximum funding assistance and terms for reimbursement shall be established in a Memorandum of Agreement (MOA) signed by E&E and selected project sponsors. Expenses that pre-date the signed MOA are not eligible for reimbursement. E&E retains the right to partially fund projects if so specified in the MOA.

Maximum Funding Assistance for Replacement of this Bus(\$)

98,000

Project Details (4 of 20)

Diesel-Powered School Bus;`EngineModelYear`

Answer the following questions for each vehicle to be replaced. Click the "Add New Project Details" button at the end of this section for each additional vehicle.

Existing Vehicle Details

Existing Vehicle Type

Diesel-Powered School Bus

Typical Function of Existing Bus Involved in the Proposed Project

Transports students to and from schools and school functions on bus routes, on-field, and athletic trips.

Existing Bus Operation Frequency and Time of Use

The buses will operate 178 school days per year with routes running Monday-Friday from 5:30 AM-5:30 PM. The bus fleet covers 644 square miles per day in Pulaski County and all parts of the state for field and athletic trips. We run 440 routes per day and 78,320 routes per year.

In which County or Counties is the Existing Vehicle or Equipment Involved in the Proposed Project Typically Operated?

Pulaski

On-Highway Weight Class

Class 7: 26,001 – 33,000 lbs.

Vehicle Identification Number

4DRBUAAN57A506940

Vehicle Make

International

Vehicle Model

CE

Vehicle Model Year

2007

Highway Engine Information (Complete one row for each engine that powers the existing vehicle)

Engine Serial Number	Engine Family Name	Engine Make	Engine Model	Engine Model Year	Horsepower	Fuel Type	Fuel Used (gallons per year)
2U2142098	6NVXH0466AEA	International	D220	2006	220	Ultra-Low Sulfur Diesel (ULSD)	1102
							Sum: 1102

CORRECTION REQUEST (APPROVED)**Please verify engine family name.**

Please verify engine family name. Engine family name should be present on engine tag and should consist of 12 characters.

Created on 10/31/2022 9:04 AM by **Mikayla Shaddon**

1 COMMENT**Charles W Blake (cblake@pcssd.org) (10/31/2022 2:00 PM)**

According to the tag on the engine the engine family name is DT 466. I have attached an copy of one the engine tags to this grant.

Annual Miles Traveled

Year	Annual Miles (Miles per Year)
2020	13561

Year	Annual Miles (Miles per Year)
2021	8818
	Average: 11189.5

Number of days operated per week (on average) in 2020 and 2021

5

Remaining Life (Years)

10

New Vehicle Details

Replacement Bus Fuel Type

LPG

Percentage of Time the Affected Equipment will be Operated in Arkansas

100

Emission Reductions Anticipated from the Proposed Project

EPA's Diesel Emission Quantifier may be used to quantify the emissions benefit anticipated from the proposed project. This tool is freely available from the EPA website.

[Click here to access EPA's Diesel Emission Quantifier.](#)

Estimated Emissions Reductions

Pollutant	Annual Tons Reduced	Lifetime Annual Tons Reduced
Nitrogen Oxides (NOx)	0.084	0.840
Fine Particulate (PM2.5)	0.006	0.064
Hydrocarbons (HC)	0.011	0.110
Carbon Monoxide (CO)	-0.011	-0.112
Carbon Dioxide (CO2)	0	0
	Sum: 0.09	Sum: 0.902

Describe the methodology used to calculate estimated emissions reductions from the proposed project.

This is the methodology used to calculate estimated emissions reductions from this proposed project. We calculated the amount of pollutants emitted from diesel fuel per gallon and multiply the number of gallons of diesel fuel used per year.

Then we took the amount of pollutants emitted from propane per gallon and multiply the number of gallons of propane used per year.

After getting the totals we subtracted the pollutants emitted per total gallons of propane per year from the total number of diesel gallons used per year.

Maximum Funding Assistance for this Replacement Bus

The maximum funding assistance value for eligible project costs associated with replacement of this bus is calculated based on user inputs.

Projects selected for award under this program will receive reimbursement for eligible project costs or the maximum funding assistance value, whichever is less, upon completion of the project and receipt by E&E of all required documents. The maximum funding assistance and terms for reimbursement shall be established in a Memorandum of Agreement (MOA) signed by E&E and selected project sponsors. Expenses that pre-date the signed MOA are not eligible for reimbursement. E&E retains the right to partially fund projects if so specified in the MOA.

Maximum Funding Assistance for Replacement of this Bus(\$)
98,000

Project Details (5 of 20)

Diesel-Powered School Bus;`EngineModelYear`

Answer the following questions for each vehicle to be replaced. Click the "Add New Project Details" button at the end of this section for each additional vehicle.

Existing Vehicle Details

Existing Vehicle Type

Diesel-Powered School Bus

Typical Function of Existing Bus Involved in the Proposed Project

Transports students to and from schools and school functions on bus routes, on-field, and athletic trips.

Existing Bus Operation Frequency and Time of Use

The buses will operate 178 school days per year with routes running Monday-Friday from 5:30 AM-5:30 PM. The bus fleet covers 644 square miles per day in Pulaski County and all parts of the state for field and athletic trips. We run 440 routes per day and 78,320 routes per year.

In which County or Counties is the Existing Vehicle or Equipment Involved in the Proposed Project Typically Operated?

Pulaski

On-Highway Weight Class

Class 7: 26,001 – 33,000 lbs.

Vehicle Identification Number

4DRBUAAN97A506942

Vehicle Make

International

Vehicle Model

CE

Vehicle Model Year

2007

Highway Engine Information (Complete one row for each engine that powers the existing vehicle)

Engine Serial Number	Engine Family Name	Engine Make	Engine Model	Engine Model Year	Horsepower	Fuel Type	Fuel Used (gallons per year)
2U2142986	6NVXH0466AEA	International	D220	2006	220	Ultra-Low Sulfur Diesel (ULSD)	891

Engine Serial Number	Engine Family Name	Engine Make	Engine Model	Engine Model Year	Horsepower	Fuel Type	Fuel Used (gallons per year)
							Sum: 891

CORRECTION REQUEST (APPROVED)

Please verify engine family name.

Please verify engine family name. Engine family name should be present on engine tag and should consist of 12 characters.

Created on 10/31/2022 9:04 AM by **Mikayla Shaddon**

1 COMMENT

Charles W Blake (cblake@pcssd.org) (10/31/2022 2:00 PM)

According to the tag on the engine the engine family name is DT 466. I have attached an copy of one the engine tags to this grant.

Annual Miles Traveled

Year	Annual Miles (Miles per Year)
2020	5087
2021	7127
	Average: 6107

Number of days operated per week (on average) in 2020 and 2021

5

Remaining Life (Years)

10

New Vehicle Details

Replacement Bus Fuel Type

LPG

Percentage of Time the Affected Equipment will be Operated in Arkansas

100

Emission Reductions Anticipated from the Proposed Project

EPA's Diesel Emission Quantifier may be used to quantify the emissions benefit anticipated from the proposed project. This tool is freely available from the EPA website.

[Click here to access EPA's Diesel Emission Quantifier.](#)

Estimated Emissions Reductions

Pollutant	Annual Tons Reduced	Lifetime Annual Tons Reduced
Nitrogen Oxides (NOx)	0.048	0.484
Fine Particulate (PM2.5)	0.004	0.040
Hydrocarbons (HC)	0.007	0.067
Carbon Monoxide (CO)	-0.004	-0.040

Pollutant	Annual Tons Reduced	Lifetime Annual Tons Reduced
Carbon Dioxide (CO2)	0	0
	Sum: 0.055	Sum: 0.551

Describe the methodology used to calculate estimated emissions reductions from the proposed project.

This is the methodology used to calculate estimated emissions reductions from this proposed project. We calculated the amount of pollutants emitted from diesel fuel per gallon and multiply the number of gallons of diesel fuel used per year.

Then we took the amount of pollutants emitted from propane per gallon and multiply the number of gallons of propane used per year.

After getting the totals we subtracted the pollutants emitted per total gallons of propane per year from the total number of diesel gallons used per year.

Maximum Funding Assistance for this Replacement Bus

The maximum funding assistance value for eligible project costs associated with replacement of this bus is calculated based on user inputs.

Projects selected for award under this program will receive reimbursement for eligible project costs or the maximum funding assistance value, whichever is less, upon completion of the project and receipt by E&E of all required documents. The maximum funding assistance and terms for reimbursement shall be established in a Memorandum of Agreement (MOA) signed by E&E and selected project sponsors. Expenses that pre-date the signed MOA are not eligible for reimbursement. E&E retains the right to partially fund projects if so specified in the MOA.

Maximum Funding Assistance for Replacement of this Bus(\$)

98,000

Project Details (6 of 20)

Diesel-Powered School Bus;`EngineModelYear`

Answer the following questions for each vehicle to be replaced. Click the "Add New Project Details" button at the end of this section for each additional vehicle.

Existing Vehicle Details

Existing Vehicle Type

Diesel-Powered School Bus

Typical Function of Existing Bus Involved in the Proposed Project

Transports students to and from schools and school functions on bus routes, on-field, and athletic trips.

Existing Bus Operation Frequency and Time of Use

The buses will operate 178 school days per year with routes running Monday-Friday from 5:30 AM-5:30 PM. The bus fleet covers 644 square miles per day in Pulaski County and all parts of the state for field and athletic trips. We run 440 routes per day and 78,320 routes per year.

In which County or Counties is the Existing Vehicle or Equipment Involved in the Proposed Project Typically Operated?

Pulaski

On-Highway Weight Class

Class 7: 26,001 – 33,000 lbs.

Vehicle Identification Number

1BABKBXA12F204393

Vehicle Make

Blue Bird

Vehicle Model

All American

Vehicle Model Year

2002

Highway Engine Information (Complete one row for each engine that powers the existing vehicle)

Engine Serial Number	Engine Family Name	Engine Make	Engine Model	Engine Model Year	Horsepower	Fuel Type	Fuel Used (gallons per year)
46111483	1CEXH0505CAP	Cummins	ISC 260	2001	260	Ultra-Low Sulfur Diesel (ULSD)	1346
							Sum: 1346

Annual Miles Traveled

Year	Annual Miles (Miles per Year)
2020	1813
2021	10764
	Average: 6288.5

Number of days operated per week (on average) in 2020 and 2021

5

Remaining Life (Years)

5

New Vehicle Details

Replacement Bus Fuel Type

LPG

Percentage of Time the Affected Equipment will be Operated in Arkansas

100

Emission Reductions Anticipated from the Proposed Project

EPA's Diesel Emission Quantifier may be used to quantify the emissions benefit anticipated from the proposed project. This tool is freely available from the EPA website.

[Click here to access EPA's Diesel Emission Quantifier.](#)

Estimated Emissions Reductions

Pollutant	Annual Tons Reduced	Lifetime Annual Tons Reduced
Nitrogen Oxides (NOx)	0.067	0.334
Fine Particulate (PM2.5)	0.005	0.023
Hydrocarbons (HC)	0.013	0.067
Carbon Monoxide (CO)	0.001	0.005
Carbon Dioxide (CO2)	0	0
	Sum: 0.086	Sum: 0.429

Describe the methodology used to calculate estimated emissions reductions from the proposed project.

This is the methodology used to calculate estimated emissions reductions from this proposed project. We calculated the amount of pollutants emitted from diesel fuel per gallon and multiply the number of gallons of diesel fuel used per year. Then we took the amount of pollutants emitted from propane per gallon and multiply the number of gallons of propane used per year. After getting the totals we subtracted the pollutants emitted per total gallons of propane per year from the total number of diesel gallons used per year.

Maximum Funding Assistance for this Replacement Bus

The maximum funding assistance value for eligible project costs associated with replacement of this bus is calculated based on user inputs.

Projects selected for award under this program will receive reimbursement for eligible project costs or the maximum funding assistance value, whichever is less, upon completion of the project and receipt by E&E of all required documents. The maximum funding assistance and terms for reimbursement shall be established in a Memorandum of Agreement (MOA) signed by E&E and selected project sponsors. Expenses that pre-date the signed MOA are not eligible for reimbursement. E&E retains the right to partially fund projects if so specified in the MOA.

Maximum Funding Assistance for Replacement of this Bus(\$)

98,000

Project Details (7 of 20)

Diesel-Powered School Bus;`EngineModelYear`

Answer the following questions for each vehicle to be replaced. Click the "Add New Project Details" button at the end of this section for each additional vehicle.

Existing Vehicle Details

Existing Vehicle Type

Diesel-Powered School Bus

Typical Function of Existing Bus Involved in the Proposed Project

Transports students to and from schools and school functions on bus routes, on-field, and athletic trips.

Existing Bus Operation Frequency and Time of Use

The buses will operate 178 school days per year with routes running Monday-Friday from 5:30 AM-5:30 PM. The bus fleet covers 644 square miles per day in Pulaski County and all parts of the state for field and athletic trips. We run 440 routes per day and 78,320 routes per year.

In which County or Counties is the Existing Vehicle or Equipment Involved in the Proposed Project Typically Operated?

Pulaski

On-Highway Weight Class

Class 7: 26,001 – 33,000 lbs.

Vehicle Identification Number

1BABKBXA32F204394

Vehicle Make

Blue Bird

Vehicle Model

All American

Vehicle Model Year

2002

Highway Engine Information (Complete one row for each engine that powers the existing vehicle)

Engine Serial Number	Engine Family Name	Engine Make	Engine Model	Engine Model Year	Horsepower	Fuel Type	Fuel Used (gallons per year)
46106680	1CEXH0505CAP	Cummins	ISC 260	2001	260	Ultra-Low Sulfur Diesel (ULSD)	1591
							Sum: 1591

Annual Miles Traveled

Year	Annual Miles (Miles per Year)
2020	7986
2021	12732
	Average: 10359

Number of days operated per week (on average) in 2020 and 2021

5

Remaining Life (Years)

5

New Vehicle Details

Replacement Bus Fuel Type

LPG

Percentage of Time the Affected Equipment will be Operated in Arkansas

100

Emission Reductions Anticipated from the Proposed Project

EPA's Diesel Emission Quantifier may be used to quantify the emissions benefit anticipated from the proposed project. This tool is freely available from the EPA website.
[Click here to access EPA's Diesel Emission Quantifier.](#)

Estimated Emissions Reductions

Pollutant	Annual Tons Reduced	Lifetime Annual Tons Reduced
Nitrogen Oxides (NOx)	0.103	0.513
Fine Particulate (PM2.5)	0.007	0.033
Hydrocarbons (HC)	0.020	0.101
Carbon Monoxide (CO)	-0.001	-0.005
Carbon Dioxide (CO2)	0	0
	Sum: 0.129	Sum: 0.642

Describe the methodology used to calculate estimated emissions reductions from the proposed project.

This is the methodology used to calculate estimated emissions reductions from this proposed project. We calculated the amount of pollutants emitted from diesel fuel per gallon and multiply the number of gallons of diesel fuel used per year. Then we took the amount of pollutants emitted from propane per gallon and multiply the number of gallons of propane used per year. After getting the totals we subtracted the pollutants emitted per total gallons of propane per year from the total number of diesel gallons used per year.

Maximum Funding Assistance for this Replacement Bus

The maximum funding assistance value for eligible project costs associated with replacement of this bus is calculated based on user inputs.

Projects selected for award under this program will receive reimbursement for eligible project costs or the maximum funding assistance value, whichever is less, upon completion of the project and receipt by E&E of all required documents. The maximum funding assistance and terms for reimbursement shall be established in a Memorandum of Agreement (MOA) signed by E&E and selected project sponsors. Expenses that pre-date the signed MOA are not eligible for reimbursement. E&E retains the right to partially fund projects if so specified in the MOA.

Maximum Funding Assistance for Replacement of this Bus(\$)
98,000

Project Details (8 of 20)

Diesel-Powered School Bus;`EngineModelYear`

Answer the following questions for each vehicle to be replaced. Click the "Add New Project Details" button at the end of this section for each additional vehicle.

Existing Vehicle Details

Existing Vehicle Type
Diesel-Powered School Bus

Typical Function of Existing Bus Involved in the Proposed Project
Transports students to and from schools and school functions on bus routes, on-field, and athletic trips.

Existing Bus Operation Frequency and Time of Use

The buses will operate 178 school days per year with routes running Monday-Friday from 5:30 AM-5:30 PM. The bus fleet covers 644 square miles per day in Pulaski County and all parts of the state for field and athletic trips. We run 440 routes per day and 78,320 routes per year.

In which County or Counties is the Existing Vehicle or Equipment Involved in the Proposed Project Typically Operated?

Pulaski

On-Highway Weight Class

Class 7: 26,001 – 33,000 lbs.

Vehicle Identification Number

1BABKBXA52F204395

Vehicle Make

Blue Bird

Vehicle Model

All American

Vehicle Model Year

2002

Highway Engine Information (Complete one row for each engine that powers the existing vehicle)

Engine Serial Number	Engine Family Name	Engine Make	Engine Model	Engine Model Year	Horsepower	Fuel Type	Fuel Used (gallons per year)
46109083	1CEXH0505CAP	Cummins	ISC 260	2001	260	Ultra-Low Sulfur Diesel (ULSD)	2580
							Sum: 2580

Annual Miles Traveled

Year	Annual Miles (Miles per Year)
2020	4916
2021	20636
	Average: 12776

Number of days operated per week (on average) in 2020 and 2021

5

Remaining Life (Years)

5

New Vehicle Details**Replacement Bus Fuel Type**

LPG

Percentage of Time the Affected Equipment will be Operated in Arkansas

100

Emission Reductions Anticipated from the Proposed Project

EPA's Diesel Emission Quantifier may be used to quantify the emissions benefit anticipated from the proposed project. This tool is freely available from the EPA website.

[Click here to access EPA's Diesel Emission Quantifier.](#)

Estimated Emissions Reductions

Pollutant	Annual Tons Reduced	Lifetime Annual Tons Reduced
Nitrogen Oxides (NOx)	0.124	0.62
Fine Particulate (PM2.5)	0.008	0.040
Hydrocarbons (HC)	0.024	0.122
Carbon Monoxide (CO)	-0.002	-0.011
Carbon Dioxide (CO2)	0	0
	Sum: 0.154	Sum: 0.771

Describe the methodology used to calculate estimated emissions reductions from the proposed project.

This is the methodology used to calculate estimated emissions reductions from this proposed project. We calculated the amount of pollutants emitted from diesel fuel per gallon and multiply the number of gallons of diesel fuel used per year.

Then we took the amount of pollutants emitted from propane per gallon and multiply the number of gallons of propane used per year.

After getting the totals we subtracted the pollutants emitted per total gallons of propane per year from the total number of diesel gallons used per year.

Maximum Funding Assistance for this Replacement Bus

The maximum funding assistance value for eligible project costs associated with replacement of this bus is calculated based on user inputs.

Projects selected for award under this program will receive reimbursement for eligible project costs or the maximum funding assistance value, whichever is less, upon completion of the project and receipt by E&E of all required documents. The maximum funding assistance and terms for reimbursement shall be established in a Memorandum of Agreement (MOA) signed by E&E and selected project sponsors. Expenses that pre-date the signed MOA are not eligible for reimbursement. E&E retains the right to partially fund projects if so specified in the MOA.

Maximum Funding Assistance for Replacement of this Bus(\$)

98,000

Project Details (9 of 20)

Diesel-Powered School Bus;`EngineModelYear`

Answer the following questions for each vehicle to be replaced. Click the "Add New Project Details" button at the end of this section for each additional vehicle.

Existing Vehicle Details

Existing Vehicle Type

Diesel-Powered School Bus

Typical Function of Existing Bus Involved in the Proposed Project

Transports students to and from schools and school functions on bus routes, on-field, and athletic trips.

Existing Bus Operation Frequency and Time of Use

The buses will operate 178 school days per year with routes running Monday-Friday from 5:30 AM-5:30 PM. The bus fleet covers 644 square miles per day in Pulaski County and all parts of the state for field and athletic trips. We run 440 routes per day and 78,320 routes per year.

In which County or Counties is the Existing Vehicle or Equipment Involved in the Proposed Project Typically Operated?

Pulaski

On-Highway Weight Class

Class 7: 26,001 – 33,000 lbs.

Vehicle Identification Number

1BABKBXA72F204396

Vehicle Make

Blue Bird

Vehicle Model

All American

Vehicle Model Year

2002

Highway Engine Information (Complete one row for each engine that powers the existing vehicle)

Engine Serial Number	Engine Family Name	Engine Make	Engine Model	Engine Model Year	Horsepower	Fuel Type	Fuel Used (gallons per year)
46109015	1CEXH0505CAP	Cummins	ISC 260	2001	260	Ultra-Low Sulfur Diesel (ULSD)	938
							Sum: 938

Annual Miles Traveled

Year	Annual Miles (Miles per Year)
2020	5360
2021	7506
	Average: 6433

Number of days operated per week (on average) in 2020 and 2021

5

Remaining Life (Years)

5

New Vehicle Details

Replacement Bus Fuel Type

LPG

Percentage of Time the Affected Equipment will be Operated in Arkansas

100

Emission Reductions Anticipated from the Proposed Project

EPA's Diesel Emission Quantifier may be used to quantify the emissions benefit anticipated from the proposed project. This tool is freely available from the EPA website.

[Click here to access EPA's Diesel Emission Quantifier.](#)

Estimated Emissions Reductions

Pollutant	Annual Tons Reduced	Lifetime Annual Tons Reduced
Nitrogen Oxides (NOx)	0.068	0.341
Fine Particulate (PM2.5)	0.005	0.023
Hydrocarbons (HC)	0.018	0.069
Carbon Monoxide (CO)	0.001	0.004
Carbon Dioxide (CO2)	0	0
	Sum: 0.092	Sum: 0.437

Describe the methodology used to calculate estimated emissions reductions from the proposed project.

This is the methodology used to calculate estimated emissions reductions from this proposed project. We calculated the amount of pollutants emitted from diesel fuel per gallon and multiply the number of gallons of diesel fuel used per year.

Then we took the amount of pollutants emitted from propane per gallon and multiply the number of gallons of propane used per year.

After getting the totals we subtracted the pollutants emitted per total gallons of propane per year from the total number of diesel gallons used per year.

Maximum Funding Assistance for this Replacement Bus

The maximum funding assistance value for eligible project costs associated with replacement of this bus is calculated based on user inputs.

Projects selected for award under this program will receive reimbursement for eligible project costs or the maximum funding assistance value, whichever is less, upon completion of the project and receipt by E&E of all required documents. The maximum funding assistance and terms for reimbursement shall be established in a Memorandum of Agreement (MOA) signed by E&E and selected project sponsors. Expenses that pre-date the signed MOA are not eligible for reimbursement. E&E retains the right to partially fund projects if so specified in the MOA.

Maximum Funding Assistance for Replacement of this Bus(\$)

98,000

Project Details (10 of 20)

Diesel-Powered School Bus;`EngineModelYear`

Answer the following questions for each vehicle to be replaced. Click the "Add New Project Details" button at the end of this section for each additional vehicle.

Existing Vehicle Details

Existing Vehicle Type

Diesel-Powered School Bus

Typical Function of Existing Bus Involved in the Proposed Project

Transports students to and from schools and school functions on bus routes, on-field, and athletic trips.

Existing Bus Operation Frequency and Time of Use

The buses will operate 178 school days per year with routes running Monday-Friday from 5:30 AM-5:30 PM. The bus fleet covers 644 square miles per day in Pulaski County and all parts of the state for field and athletic trips. We run 440 routes per day and 78,320 routes per year.

In which County or Counties is the Existing Vehicle or Equipment Involved in the Proposed Project Typically Operated?

Pulaski

On-Highway Weight Class

Class 7: 26,001 – 33,000 lbs.

Vehicle Identification Number

1BABKBXA92F204397

Vehicle Make

Blue Bird

Vehicle Model

All American

Vehicle Model Year

2002

Highway Engine Information (Complete one row for each engine that powers the existing vehicle)

Engine Serial Number	Engine Family Name	Engine Make	Engine Model	Engine Model Year	Horsepower	Fuel Type	Fuel Used (gallons per year)
46111500	1CEXH0505CAP	Cummins	ISC 260	2001	260	Ultra-Low Sulfur Diesel (ULSD)	1305
							Sum: 1305

Annual Miles Traveled

Year	Annual Miles (Miles per Year)
2020	11764
2021	10443
	Average: 11103.5

Number of days operated per week (on average) in 2020 and 2021

5

Remaining Life (Years)

5

New Vehicle Details

Replacement Bus Fuel Type

LPG

Percentage of Time the Affected Equipment will be Operated in Arkansas

100

Emission Reductions Anticipated from the Proposed Project

EPA's Diesel Emission Quantifier may be used to quantify the emissions benefit anticipated from the proposed project. This tool is freely available from the EPA website.

[Click here to access EPA's Diesel Emission Quantifier.](#)

Estimated Emissions Reductions

Pollutant	Annual Tons Reduced	Lifetime Annual Tons Reduced
Nitrogen Oxides (NOx)	0.989	4.945
Fine Particulate (PM2.5)	0.060	0.299
Hydrocarbons (HC)	0.189	0.943
Carbon Monoxide (CO)	-0.050	-0.250
Carbon Dioxide (CO2)	0	0
	Sum: 1.188	Sum: 5.937

Describe the methodology used to calculate estimated emissions reductions from the proposed project.

This is the methodology used to calculate estimated emissions reductions from this proposed project. We calculated the amount of pollutants emitted from diesel fuel per gallon and multiply the number of gallons of diesel fuel used per year.

Then we took the amount of pollutants emitted from propane per gallon and multiply the number of gallons of propane used per year.

After getting the totals we subtracted the pollutants emitted per total gallons of propane per year from the total number of diesel gallons used per year.

Maximum Funding Assistance for this Replacement Bus

The maximum funding assistance value for eligible project costs associated with replacement of this bus is calculated based on user inputs.

Projects selected for award under this program will receive reimbursement for eligible project costs or the maximum funding assistance value, whichever is less, upon completion of the project and receipt by E&E of all required documents. The maximum funding assistance and terms for reimbursement shall be established in a Memorandum of Agreement (MOA) signed by E&E and selected project sponsors. Expenses that pre-date the signed MOA are not eligible for reimbursement. E&E retains the right to partially fund projects if so specified in the MOA.

Maximum Funding Assistance for Replacement of this Bus(\$)

98,000

Project Details (11 of 20)

Diesel-Powered School Bus;`EngineModelYear`

Answer the following questions for each vehicle to be replaced. Click the "Add New Project Details" button at the end of this section for each additional vehicle.

Existing Vehicle Details

Existing Vehicle Type

Diesel-Powered School Bus

Typical Function of Existing Bus Involved in the Proposed Project

Transports students to and from schools and school functions on bus routes, on-field, and athletic trips.

Existing Bus Operation Frequency and Time of Use

The buses will operate 178 school days per year with routes running Monday-Friday from 5:30 AM-5:30 PM. The bus fleet covers 644 square miles per day in Pulaski County and all parts of the state for field and athletic trips. We run 440 routes per day and 78,320 routes per year.

In which County or Counties is the Existing Vehicle or Equipment Involved in the Proposed Project Typically Operated?

Pulaski

On-Highway Weight Class

Class 7: 26,001 – 33,000 lbs.

Vehicle Identification Number

4DRBUAAN98A560064

Vehicle Make

International

Vehicle Model

CE

Vehicle Model Year

2008

Highway Engine Information (Complete one row for each engine that powers the existing vehicle)

Engine Serial Number	Engine Family Name	Engine Make	Engine Model	Engine Model Year	Horsepower	Fuel Type	Fuel Used (gallons per year)
2U2168742	6NVXH0466AEA	International	D220	2007	220	Ultra-Low Sulfur Diesel (ULSD)	1951
							Sum: 1951

CORRECTION REQUEST (APPROVED)**Please verify engine family name.**

Please verify engine family name. Engine family name should be present on engine tag and should consist of 12 characters.

Created on 10/31/2022 9:06 AM by **Mikayla Shaddon**

1 COMMENT

Charles W Blake (cblake@pcssd.org) (10/31/2022 2:00 PM)

According to the tag on the engine the engine family name is DT 466. I have attached an copy of one the engine tags to this grant.

Annual Miles Traveled

Year	Annual Miles (Miles per Year)
2020	14264
2021	15604
	Average: 14934

Number of days operated per week (on average) in 2020 and 2021

5

Remaining Life (Years)

11

New Vehicle Details**Replacement Bus Fuel Type**

LPG

Percentage of Time the Affected Equipment will be Operated in Arkansas

100

Emission Reductions Anticipated from the Proposed Project

EPA's Diesel Emission Quantifier may be used to quantify the emissions benefit anticipated from the proposed project. This tool is freely available from the EPA website.

[Click here to access EPA's Diesel Emission Quantifier.](#)

Estimated Emissions Reductions

Pollutant	Annual Tons Reduced	Lifetime Annual Tons Reduced
Nitrogen Oxides (NOx)	0.051	0.559
Fine Particulate (PM2.5)	0.000	0.001
Hydrocarbons (HC)	0.003	0.036
Carbon Monoxide (CO)	-0.058	-0.639
Carbon Dioxide (CO2)	0	0
	Sum: -0.004	Sum: -0.043

Describe the methodology used to calculate estimated emissions reductions from the proposed project.

This is the methodology used to calculate estimated emissions reductions from this proposed project. We calculated the amount of pollutants emitted from diesel fuel per gallon and multiply the number of gallons of diesel fuel used per year.

Then we took the amount of pollutants emitted from propane per gallon and multiply the number of gallons of propane used per year.

After getting the totals we subtracted the pollutants emitted per total gallons of propane per year from the total number of diesel gallons used per year.

Maximum Funding Assistance for this Replacement Bus

The maximum funding assistance value for eligible project costs associated with replacement of this bus is calculated based on user inputs.

Projects selected for award under this program will receive reimbursement for eligible project costs or the maximum funding assistance value, whichever is less, upon completion of the project and receipt by E&E of all required documents. The maximum funding assistance and terms for reimbursement shall be established in a Memorandum of Agreement (MOA) signed by E&E and selected project sponsors. Expenses that pre-date the signed MOA are not eligible for reimbursement. E&E retains the right to partially fund projects if so specified in the MOA.

Maximum Funding Assistance for Replacement of this Bus(\$)

98,000

Project Details (12 of 20)**Diesel-Powered School Bus;`EngineModelYear`**

Answer the following questions for each vehicle to be replaced. Click the "Add New Project Details" button at the end of this section for each additional vehicle.

Existing Vehicle Details

Existing Vehicle Type

Diesel-Powered School Bus

Typical Function of Existing Bus Involved in the Proposed Project

Transports students to and from schools and school functions on bus routes, on-field, and athletic trips.

Existing Bus Operation Frequency and Time of Use

The buses will operate 178 school days per year with routes running Monday-Friday from 5:30 AM-5:30 PM. The bus fleet covers 644 square miles per day in Pulaski County and all parts of the state for field and athletic trips. We run 440 routes per day and 78,320 routes per year.

In which County or Counties is the Existing Vehicle or Equipment Involved in the Proposed Project Typically Operated?

Pulaski

On-Highway Weight Class

Class 7: 26,001 – 33,000 lbs.

Vehicle Identification Number

1BABKBXA42F204405

Vehicle Make
Blue Bird

Vehicle Model
All American

Vehicle Model Year
2002

Highway Engine Information (Complete one row for each engine that powers the existing vehicle)

Engine Serial Number	Engine Family Name	Engine Make	Engine Model	Engine Model Year	Horsepower	Fuel Type	Fuel Used (gallons per year)
46111630	1CEXH0505CAP	Cummins	ISC 260	2001	260	Ultra-Low Sulfur Diesel (ULSD)	1331
							Sum: 1331

Annual Miles Traveled

Year	Annual Miles (Miles per Year)
2020	4830
2021	10650
	Average: 7740

Number of days operated per week (on average) in 2020 and 2021
5

Remaining Life (Years)
5

New Vehicle Details

Replacement Bus Fuel Type
LPG

Percentage of Time the Affected Equipment will be Operated in Arkansas
100

Emission Reductions Anticipated from the Proposed Project

EPA's Diesel Emission Quantifier may be used to quantify the emissions benefit anticipated from the proposed project. This tool is freely available from the EPA website.

[Click here to access EPA's Diesel Emission Quantifier.](#)

Estimated Emissions Reductions

Pollutant	Annual Tons Reduced	Lifetime Annual Tons Reduced
Nitrogen Oxides (NOx)	0.080	0.398
Fine Particulate (PM2.5)	0.005	0.026
Hydrocarbons (HC)	0.016	0.080

Pollutant	Annual Tons Reduced	Lifetime Annual Tons Reduced
Carbon Monoxide (CO)	0.000	0.001
Carbon Dioxide (CO2)	0	0
	Sum: 0.101	Sum: 0.505

Describe the methodology used to calculate estimated emissions reductions from the proposed project.

This is the methodology used to calculate estimated emissions reductions from this proposed project. We calculated the amount of pollutants emitted from diesel fuel per gallon and multiply the number of gallons of diesel fuel used per year.

Then we took the amount of pollutants emitted from propane per gallon and multiply the number of gallons of propane used per year.

After getting the totals we subtracted the pollutants emitted per total gallons of propane per year from the total number of diesel gallons used per year.

Maximum Funding Assistance for this Replacement Bus

The maximum funding assistance value for eligible project costs associated with replacement of this bus is calculated based on user inputs.

Projects selected for award under this program will receive reimbursement for eligible project costs or the maximum funding assistance value, whichever is less, upon completion of the project and receipt by E&E of all required documents. The maximum funding assistance and terms for reimbursement shall be established in a Memorandum of Agreement (MOA) signed by E&E and selected project sponsors. Expenses that pre-date the signed MOA are not eligible for reimbursement. E&E retains the right to partially fund projects if so specified in the MOA.

Maximum Funding Assistance for Replacement of this Bus(\$)

98,000

Project Details (13 of 20)

Diesel-Powered School Bus;`EngineModelYear`

Answer the following questions for each vehicle to be replaced. Click the "Add New Project Details" button at the end of this section for each additional vehicle.

Existing Vehicle Details

Existing Vehicle Type

Diesel-Powered School Bus

Typical Function of Existing Bus Involved in the Proposed Project

Transports students to and from schools and school functions on bus routes, on-field, and athletic trips.

Existing Bus Operation Frequency and Time of Use

The buses will operate 178 school days per year with routes running Monday-Friday from 5:30 AM-5:30 PM. The bus fleet covers 644 square miles per day in Pulaski County and all parts of the state for field and athletic trips. We run 440 routes per day and 78,320 routes per year.

In which County or Counties is the Existing Vehicle or Equipment Involved in the Proposed Project Typically Operated?

Pulaski

On-Highway Weight Class

Class 7: 26,001 – 33,000 lbs.

Vehicle Identification Number

1BAKF CPA47F241701

Vehicle Make

Blue Bird

Vehicle Model

Vision

Vehicle Model Year

2007

Highway Engine Information (Complete one row for each engine that powers the existing vehicle)

Engine Serial Number	Engine Family Name	Engine Make	Engine Model	Engine Model Year	Horsepower	Fuel Type	Fuel Used (gallons per year)
S46639919	6CEXH0359BAG	Cummins	ISB 200	2006	200	Ultra-Low Sulfur Diesel (ULSD)	1495
							Sum: 1495

Annual Miles Traveled

Year	Annual Miles (Miles per Year)
2020	11893
2021	11962
	Average: 11927.5

Number of days operated per week (on average) in 2020 and 2021

5

Remaining Life (Years)

10

New Vehicle Details

Replacement Bus Fuel Type

LPG

Percentage of Time the Affected Equipment will be Operated in Arkansas

100

Emission Reductions Anticipated from the Proposed Project

EPA's Diesel Emission Quantifier may be used to quantify the emissions benefit anticipated from the proposed project. This tool is freely available from the EPA website.

[Click here to access EPA's Diesel Emission Quantifier.](#)

Estimated Emissions Reductions

Pollutant	Annual Tons Reduced	Lifetime Annual Tons Reduced
Nitrogen Oxides (NOx)	0.089	0.893
Fine Particulate (PM2.5)	0.007	0.067
Hydrocarbons (HC)	0.012	0.117
Carbon Monoxide (CO)	-0.012	-0.122
Carbon Dioxide (CO2)	0	0
	Sum: 0.096	Sum: 0.955

Describe the methodology used to calculate estimated emissions reductions from the proposed project.

This is the methodology used to calculate estimated emissions reductions from this proposed project. We calculated the amount of pollutants emitted from diesel fuel per gallon and multiply the number of gallons of diesel fuel used per year.

Then we took the amount of pollutants emitted from propane per gallon and multiply the number of gallons of propane used per year.

After getting the totals we subtracted the pollutants emitted per total gallons of propane per year from the total number of diesel gallons used per year.

Maximum Funding Assistance for this Replacement Bus

The maximum funding assistance value for eligible project costs associated with replacement of this bus is calculated based on user inputs.

Projects selected for award under this program will receive reimbursement for eligible project costs or the maximum funding assistance value, whichever is less, upon completion of the project and receipt by E&E of all required documents. The maximum funding assistance and terms for reimbursement shall be established in a Memorandum of Agreement (MOA) signed by E&E and selected project sponsors. Expenses that pre-date the signed MOA are not eligible for reimbursement. E&E retains the right to partially fund projects if so specified in the MOA.

Maximum Funding Assistance for Replacement of this Bus(\$)

98,000

Project Details (14 of 20)

Diesel-Powered School Bus;`EngineModelYear`

Answer the following questions for each vehicle to be replaced. Click the "Add New Project Details" button at the end of this section for each additional vehicle.

Existing Vehicle Details

Existing Vehicle Type

Diesel-Powered School Bus

Typical Function of Existing Bus Involved in the Proposed Project

Transports students to and from schools and school functions on bus routes, on-field, and athletic trips.

Existing Bus Operation Frequency and Time of Use

The buses will operate 178 school days per year with routes running Monday-Friday from 5:30 AM-5:30 PM. The bus fleet covers 644 square miles per day in Pulaski County and all parts of the state for field and athletic trips. We run 440 routes per day and 78,320 routes per year.

In which County or Counties is the Existing Vehicle or Equipment Involved in the Proposed Project Typically Operated?

Pulaski

On-Highway Weight Class

Class 7: 26,001 – 33,000 lbs.

Vehicle Identification Number

1BAKF CPA87F240308

Vehicle Make

Blue Bird

Vehicle Model

Vision

Vehicle Model Year

2007

Highway Engine Information (Complete one row for each engine that powers the existing vehicle)

Engine Serial Number	Engine Family Name	Engine Make	Engine Model	Engine Model Year	Horsepower	Fuel Type	Fuel Used (gallons per year)
S46639186	6CEXH0359BAG	Cummins	ISB 200	2006	200	Ultra-Low Sulfur Diesel (ULSD)	1752
							Sum: 1752

Annual Miles Traveled

Year	Annual Miles (Miles per Year)
2020	7048
2021	14015
	Average: 10531.5

Number of days operated per week (on average) in 2020 and 2021

5

Remaining Life (Years)

10

New Vehicle Details

Replacement Bus Fuel Type

LPG

Percentage of Time the Affected Equipment will be Operated in Arkansas

100

Emission Reductions Anticipated from the Proposed Project

EPA's Diesel Emission Quantifier may be used to quantify the emissions benefit anticipated from the proposed project. This tool is freely available from the EPA website.
[Click here to access EPA's Diesel Emission Quantifier.](#)

Estimated Emissions Reductions

Pollutant	Annual Tons Reduced	Lifetime Annual Tons Reduced
Nitrogen Oxides (NOx)	0.079	0.795
Fine Particulate (PM2.5)	0.006	0.061
Hydrocarbons (HC)	0.010	0.105
Carbon Monoxide (CO)	-0.010	-0.102
Carbon Dioxide (CO2)	0	0
	Sum: 0.085	Sum: 0.859

Describe the methodology used to calculate estimated emissions reductions from the proposed project.

This is the methodology used to calculate estimated emissions reductions from this proposed project. We calculated the amount of pollutants emitted from diesel fuel per gallon and multiply the number of gallons of diesel fuel used per year. Then we took the amount of pollutants emitted from propane per gallon and multiply the number of gallons of propane used per year. After getting the totals we subtracted the pollutants emitted per total gallons of propane per year from the total number of diesel gallons used per year.

Maximum Funding Assistance for this Replacement Bus

The maximum funding assistance value for eligible project costs associated with replacement of this bus is calculated based on user inputs.

Projects selected for award under this program will receive reimbursement for eligible project costs or the maximum funding assistance value, whichever is less, upon completion of the project and receipt by E&E of all required documents. The maximum funding assistance and terms for reimbursement shall be established in a Memorandum of Agreement (MOA) signed by E&E and selected project sponsors. Expenses that pre-date the signed MOA are not eligible for reimbursement. E&E retains the right to partially fund projects if so specified in the MOA.

Maximum Funding Assistance for Replacement of this Bus(\$)
98,000

Project Details (15 of 20)

Diesel-Powered School Bus;`EngineModelYear`

Answer the following questions for each vehicle to be replaced. Click the "Add New Project Details" button at the end of this section for each additional vehicle.

Existing Vehicle Details

Existing Vehicle Type
Diesel-Powered School Bus

Typical Function of Existing Bus Involved in the Proposed Project

Transports students to and from schools and school functions on bus routes, on-field, and athletic trips.

Existing Bus Operation Frequency and Time of Use

The buses will operate 178 school days per year with routes running Monday-Friday from 5:30 AM-5:30 PM. The bus fleet covers 644 square miles per day in Pulaski County and all parts of the state for field and athletic trips. We run 440 routes per day and 78,320 routes per year.

In which County or Counties is the Existing Vehicle or Equipment Involved in the Proposed Project Typically Operated?

Pulaski

On-Highway Weight Class

Class 7: 26,001 – 33,000 lbs.

Vehicle Identification Number

1BAKBCPA98F252819

Vehicle Make

Blue Bird

Vehicle Model

Vision

Vehicle Model Year

2008

Highway Engine Information (Complete one row for each engine that powers the existing vehicle)

Engine Serial Number	Engine Family Name	Engine Make	Engine Model	Engine Model Year	Horsepower	Fuel Type	Fuel Used (gallons per year)
46743341	7CEXH0408BAC	Cummins	ISB 200	2007	200	Ultra-Low Sulfur Diesel (ULSD)	901
							Sum: 901

Annual Miles Traveled

Year	Annual Miles (Miles per Year)
2020	1004
2021	7204
	Average: 4104

Number of days operated per week (on average) in 2020 and 2021

5

Remaining Life (Years)

11

New Vehicle Details

Replacement Bus Fuel Type
LPG

Percentage of Time the Affected Equipment will be Operated in Arkansas
100

Emission Reductions Anticipated from the Proposed Project

EPA's Diesel Emission Quantifier may be used to quantify the emissions benefit anticipated from the proposed project. This tool is freely available from the EPA website.
[Click here to access EPA's Diesel Emission Quantifier.](#)

Estimated Emissions Reductions

Pollutant	Annual Tons Reduced	Lifetime Annual Tons Reduced
Nitrogen Oxides (NOx)	0.016	0.175
Fine Particulate (PM2.5)	0.000	0.000
Hydrocarbons (HC)	0.001	0.013
Carbon Monoxide (CO)	-0.015	0.165
Carbon Dioxide (CO2)	0	0
	Sum: 0.002	Sum: 0.353

Describe the methodology used to calculate estimated emissions reductions from the proposed project.

This is the methodology used to calculate estimated emissions reductions from this proposed project. We calculated the amount of pollutants emitted from diesel fuel per gallon and multiply the number of gallons of diesel fuel used per year.

Then we took the amount of pollutants emitted from propane per gallon and multiply the number of gallons of propane used per year.

After getting the totals we subtracted the pollutants emitted per total gallons of propane per year from the total number of diesel gallons used per year.

Maximum Funding Assistance for this Replacement Bus

The maximum funding assistance value for eligible project costs associated with replacement of this bus is calculated based on user inputs.

Projects selected for award under this program will receive reimbursement for eligible project costs or the maximum funding assistance value, whichever is less, upon completion of the project and receipt by E&E of all required documents. The maximum funding assistance and terms for reimbursement shall be established in a Memorandum of Agreement (MOA) signed by E&E and selected project sponsors. Expenses that pre-date the signed MOA are not eligible for reimbursement. E&E retains the right to partially fund projects if so specified in the MOA.

Maximum Funding Assistance for Replacement of this Bus(\$)
98,000

Project Details (16 of 20)

Diesel-Powered School Bus;`EngineModelYear`

Answer the following questions for each vehicle to be replaced. Click the "Add New Project Details" button at the end of this section for each additional vehicle.

Existing Vehicle Details

Existing Vehicle Type

Diesel-Powered School Bus

Typical Function of Existing Bus Involved in the Proposed Project

Transports students to and from schools and school functions on bus routes, on-field, and athletic trips.

Existing Bus Operation Frequency and Time of Use

The buses will operate 178 school days per year with routes running Monday-Friday from 5:30 AM-5:30 PM. The bus fleet covers 644 square miles per day in Pulaski County and all parts of the state for field and athletic trips. We run 440 routes per day and 78,320 routes per year.

In which County or Counties is the Existing Vehicle or Equipment Involved in the Proposed Project Typically Operated?

Pulaski

On-Highway Weight Class

Class 7: 26,001 – 33,000 lbs.

Vehicle Identification Number

1BAKBCPA98F252822

Vehicle Make

Blue Bird

Vehicle Model

Vision

Vehicle Model Year

2008

Highway Engine Information (Complete one row for each engine that powers the existing vehicle)

Engine Serial Number	Engine Family Name	Engine Make	Engine Model	Engine Model Year	Horsepower	Fuel Type	Fuel Used (gallons per year)
46741956	7CEXH0408BAC	Cummins	ISB 200	2007	200	Ultra-Low Sulfur Diesel (ULSD)	4577
							Sum: 4577

Annual Miles Traveled

Year	Annual Miles (Miles per Year)
2020	11734
2021	36619
	Average: 24176.5

Number of days operated per week (on average) in 2020 and 2021

5

Remaining Life (Years)

11

New Vehicle Details

Replacement Bus Fuel Type

LPG

Percentage of Time the Affected Equipment will be Operated in Arkansas

100

Emission Reductions Anticipated from the Proposed Project

EPA's Diesel Emission Quantifier may be used to quantify the emissions benefit anticipated from the proposed project. This tool is freely available from the EPA website.

[Click here to access EPA's Diesel Emission Quantifier.](#)

Estimated Emissions Reductions

Pollutant	Annual Tons Reduced	Lifetime Annual Tons Reduced
Nitrogen Oxides (NOx)	0.081	0.886
Fine Particulate (PM2.5)	0.000	0.001
Hydrocarbons (HC)	0.005	0.056
Carbon Monoxide (CO)	-0.095	-1.044
Carbon Dioxide (CO2)	0	0
	Sum: -0.009	Sum: -0.101

Describe the methodology used to calculate estimated emissions reductions from the proposed project.

This is the methodology used to calculate estimated emissions reductions from this proposed project. We calculated the amount of pollutants emitted from diesel fuel per gallon and multiply the number of gallons of diesel fuel used per year.

Then we took the amount of pollutants emitted from propane per gallon and multiply the number of gallons of propane used per year.

After getting the totals we subtracted the pollutants emitted per total gallons of propane per year from the total number of diesel gallons used per year.

Maximum Funding Assistance for this Replacement Bus

The maximum funding assistance value for eligible project costs associated with replacement of this bus is calculated based on user inputs.

Projects selected for award under this program will receive reimbursement for eligible project costs or the maximum funding assistance value, whichever is less, upon completion of the project and receipt by E&E of all required documents. The maximum funding assistance and terms for reimbursement shall be established in a Memorandum of Agreement (MOA) signed by E&E and selected project sponsors. Expenses that pre-date the signed MOA are not eligible for reimbursement. E&E retains the right to partially fund projects if so specified in the MOA.

Maximum Funding Assistance for Replacement of this Bus(\$)

98,000

Project Details (17 of 20)

Diesel-Powered School Bus;`EngineModelYear`

Answer the following questions for each vehicle to be replaced. Click the "Add New Project Details" button at the end of this section for each additional vehicle.

Existing Vehicle Details

Existing Vehicle Type

Diesel-Powered School Bus

Typical Function of Existing Bus Involved in the Proposed Project

Transports students to and from schools and school functions on bus routes, on-field, and athletic trips.

Existing Bus Operation Frequency and Time of Use

The buses will operate 178 school days per year with routes running Monday-Friday from 5:30 AM-5:30 PM. The bus fleet covers 644 square miles per day in Pulaski County and all parts of the state for field and athletic trips. We run 440 routes per day and 78,320 routes per year.

In which County or Counties is the Existing Vehicle or Equipment Involved in the Proposed Project Typically Operated?

Pulaski

On-Highway Weight Class

Class 7: 26,001 – 33,000 lbs.

Vehicle Identification Number

1BAKBCPA09F262270

Vehicle Make

Blue Bird

Vehicle Model

Vision

Vehicle Model Year

2009

Highway Engine Information (Complete one row for each engine that powers the existing vehicle)

Engine Serial Number	Engine Family Name	Engine Make	Engine Model	Engine Model Year	Horsepower	Fuel Type	Fuel Used (gallons per year)
46914315	8CEXH0408BAC	Cummins	ISB 200	2008	200	Ultra-Low Sulfur Diesel (ULSD)	2374
							Sum: 2374

Annual Miles Traveled

Year	Annual Miles (Miles per Year)
2020	15088

Year	Annual Miles (Miles per Year)
2021	18988
	Average: 17038

Number of days operated per week (on average) in 2020 and 2021

5

Remaining Life (Years)

12

New Vehicle Details

Replacement Bus Fuel Type

LPG

Percentage of Time the Affected Equipment will be Operated in Arkansas

100

Emission Reductions Anticipated from the Proposed Project

EPA's Diesel Emission Quantifier may be used to quantify the emissions benefit anticipated from the proposed project. This tool is freely available from the EPA website.

[Click here to access EPA's Diesel Emission Quantifier.](#)

Estimated Emissions Reductions

Pollutant	Annual Tons Reduced	Lifetime Annual Tons Reduced
Nitrogen Oxides (NOx)	0.058	0.691
Fine Particulate (PM2.5)	0.000	0.001
Hydrocarbons (HC)	0.004	0.045
Carbon Monoxide (CO)	-0.067	-0.798
Carbon Dioxide (CO2)	0	0
	Sum: -0.005	Sum: -0.061

Describe the methodology used to calculate estimated emissions reductions from the proposed project.

This is the methodology used to calculate estimated emissions reductions from this proposed project. We calculated the amount of pollutants emitted from diesel fuel per gallon and multiply the number of gallons of diesel fuel used per year.

Then we took the amount of pollutants emitted from propane per gallon and multiply the number of gallons of propane used per year.

After getting the totals we subtracted the pollutants emitted per total gallons of propane per year from the total number of diesel gallons used per year.

Maximum Funding Assistance for this Replacement Bus

The maximum funding assistance value for eligible project costs associated with replacement of this bus is calculated based on user inputs.

Projects selected for award under this program will receive reimbursement for eligible project costs or the maximum funding assistance value, whichever is less, upon completion of the project and receipt by E&E of all required documents. The maximum funding assistance and terms for reimbursement shall be established in a Memorandum of Agreement (MOA) signed by E&E and selected project sponsors. Expenses that pre-date the signed MOA are not eligible for reimbursement. E&E retains the right to partially fund projects if so specified in the MOA.

Maximum Funding Assistance for Replacement of this Bus(\$)
98,000

Project Details (18 of 20)

Diesel-Powered School Bus;`EngineModelYear`

Answer the following questions for each vehicle to be replaced. Click the "Add New Project Details" button at the end of this section for each additional vehicle.

Existing Vehicle Details

Existing Vehicle Type

Diesel-Powered School Bus

Typical Function of Existing Bus Involved in the Proposed Project

Transports students to and from schools and school functions on bus routes, on-field, and athletic trips.

Existing Bus Operation Frequency and Time of Use

The buses will operate 178 school days per year with routes running Monday-Friday from 5:30 AM-5:30 PM. The bus fleet covers 644 square miles per day in Pulaski County and all parts of the state for field and athletic trips. We run 440 routes per day and 78,320 routes per year.

In which County or Counties is the Existing Vehicle or Equipment Involved in the Proposed Project Typically Operated?

Pulaski

On-Highway Weight Class

Class 7: 26,001 – 33,000 lbs.

Vehicle Identification Number

1BAKBCPA09F262284

Vehicle Make

Blue Bird

Vehicle Model

Vision

Vehicle Model Year

2009

Highway Engine Information (Complete one row for each engine that powers the existing vehicle)

Engine Serial Number	Engine Family Name	Engine Make	Engine Model	Engine Model Year	Horsepower	Fuel Type	Fuel Used (gallons per year)
46908227	8CEXH0408BA	Cummins	ISB 200	2008	200	Ultra-Low Sulfur Diesel (ULSD)	1122

Engine Serial Number	Engine Family Name	Engine Make	Engine Model	Engine Model Year	Horsepower	Fuel Type	Fuel Used (gallons per year)
							Sum: 1122

Annual Miles Traveled

Year	Annual Miles (Miles per Year)
2020	17459
2021	8974
	Average: 13216.5

Number of days operated per week (on average) in 2020 and 2021

5

Remaining Life (Years)

12

New Vehicle Details

Replacement Bus Fuel Type

LPG

Percentage of Time the Affected Equipment will be Operated in Arkansas

100

Emission Reductions Anticipated from the Proposed Project

EPA's Diesel Emission Quantifier may be used to quantify the emissions benefit anticipated from the proposed project. This tool is freely available from the EPA website.

[Click here to access EPA's Diesel Emission Quantifier.](#)

Estimated Emissions Reductions

Pollutant	Annual Tons Reduced	Lifetime Annual Tons Reduced
Nitrogen Oxides (NOx)	0.045	0.543
Fine Particulate (PM2.5)	0.000	0.001
Hydrocarbons (HC)	0.003	0.036
Carbon Monoxide (CO)	-0.051	-0.615
Carbon Dioxide (CO2)	0	0
	Sum: -0.003	Sum: -0.035

Describe the methodology used to calculate estimated emissions reductions from the proposed project.

This is the methodology used to calculate estimated emissions reductions from this proposed project. We calculated the amount of pollutants emitted from diesel fuel per gallon and multiply the number of gallons of diesel fuel used per year.

Then we took the amount of pollutants emitted from propane per gallon and multiply the number of gallons of propane used per year.

After getting the totals we subtracted the pollutants emitted per total gallons of propane per year from the total number of diesel gallons used per year.

Maximum Funding Assistance for this Replacement Bus

The maximum funding assistance value for eligible project costs associated with replacement of this bus is calculated based on user inputs.

Projects selected for award under this program will receive reimbursement for eligible project costs or the maximum funding assistance value, whichever is less, upon completion of the project and receipt by E&E of all required documents. The maximum funding assistance and terms for reimbursement shall be established in a Memorandum of Agreement (MOA) signed by E&E and selected project sponsors. Expenses that pre-date the signed MOA are not eligible for reimbursement. E&E retains the right to partially fund projects if so specified in the MOA.

Maximum Funding Assistance for Replacement of this Bus(\$)

98,000

Project Details (19 of 20)

Diesel-Powered School Bus;`EngineModelYear`

Answer the following questions for each vehicle to be replaced. Click the "Add New Project Details" button at the end of this section for each additional vehicle.

Existing Vehicle Details

Existing Vehicle Type

Diesel-Powered School Bus

Typical Function of Existing Bus Involved in the Proposed Project

Transports students to and from schools and school functions on bus routes, on-field, and athletic trips.

Existing Bus Operation Frequency and Time of Use

The buses will operate 178 school days per year with routes running Monday-Friday from 5:30 AM-5:30 PM. The bus fleet covers 644 square miles per day in Pulaski County and all parts of the state for field and athletic trips. We run 440 routes per day and 78,320 routes per year.

In which County or Counties is the Existing Vehicle or Equipment Involved in the Proposed Project Typically Operated?

Pulaski

On-Highway Weight Class

Class 7: 26,001 – 33,000 lbs.

Vehicle Identification Number

4DRBUAAN27A506913

Vehicle Make

International

Vehicle Model

CE

Vehicle Model Year

2007

Highway Engine Information (Complete one row for each engine that powers the existing vehicle)

Engine Serial Number	Engine Family Name	Engine Make	Engine Model	Engine Model Year	Horsepower	Fuel Type	Fuel Used (gallons per year)
2U2143157	6NVXH0466AEA	Cummins	International	2006	210	Ultra-Low Sulfur Diesel (ULSD)	1719
							Sum: 1719

Annual Miles Traveled

Year	Annual Miles (Miles per Year)
2020	17255
2021	13755
	Average: 15505

Number of days operated per week (on average) in 2020 and 2021

5

Remaining Life (Years)

10

New Vehicle Details

Replacement Bus Fuel Type

LPG

Percentage of Time the Affected Equipment will be Operated in Arkansas

100

Emission Reductions Anticipated from the Proposed Project

EPA's Diesel Emission Quantifier may be used to quantify the emissions benefit anticipated from the proposed project. This tool is freely available from the EPA website.

[Click here to access EPA's Diesel Emission Quantifier.](#)

Estimated Emissions Reductions

Pollutant	Annual Tons Reduced	Lifetime Annual Tons Reduced
Nitrogen Oxides (NOx)	0.053	0.527
Fine Particulate (PM2.5)	0.000	0.001
Hydrocarbons (HC)	0.003	0.034
Carbon Monoxide (CO)	-0.060	-0.604
Carbon Dioxide (CO2)	0	0
	Sum: -0.004	Sum: -0.042

Describe the methodology used to calculate estimated emissions reductions from the proposed project.

This is the methodology used to calculate estimated emissions reductions from this proposed project. We calculated the amount of pollutants emitted from diesel fuel per gallon and multiply the number of gallons of diesel fuel used per year.

Then we took the amount of pollutants emitted from propane per gallon and multiply the number of gallons of propane used per year.

After getting the totals we subtracted the pollutants emitted per total gallons of propane per year from the total number of diesel gallons used per year.

Maximum Funding Assistance for this Replacement Bus

The maximum funding assistance value for eligible project costs associated with replacement of this bus is calculated based on user inputs.

Projects selected for award under this program will receive reimbursement for eligible project costs or the maximum funding assistance value, whichever is less, upon completion of the project and receipt by E&E of all required documents. The maximum funding assistance and terms for reimbursement shall be established in a Memorandum of Agreement (MOA) signed by E&E and selected project sponsors. Expenses that pre-date the signed MOA are not eligible for reimbursement. E&E retains the right to partially fund projects if so specified in the MOA.

Maximum Funding Assistance for Replacement of this Bus(\$)

98,000

Project Details (20 of 20)

Diesel-Powered School Bus;`EngineModelYear`

CORRECTION REQUEST (APPROVED)

Existing buses must be 2009 or older

Please remove or update information to replace different bus that meets eligibility requirements

Created on 10/31/2022 8:42 AM by **Mikayla Shaddon**

1 COMMENT

Charles W Blake (cblake@pcssd.org) (10/31/2022 4:10 PM)

Changed bus to qualifying buses

Answer the following questions for each vehicle to be replaced. Click the "Add New Project Details" button at the end of this section for each additional vehicle.

Existing Vehicle Details

Existing Vehicle Type

Diesel-Powered School Bus

Typical Function of Existing Bus Involved in the Proposed Project

Transports students to and from schools and school functions on bus routes, on-field, and athletic trips.

Existing Bus Operation Frequency and Time of Use

The buses will operate 178 school days per year with routes running Monday-Friday from 5:30 AM-5:30 PM. The bus fleet covers 644 square miles per day in Pulaski County and all parts of the state for field and athletic trips. We run 440 routes per day and 78,320 routes per year.

In which County or Counties is the Existing Vehicle or Equipment Involved in the Proposed Project Typically Operated?

Pulaski

On-Highway Weight Class

Class 7: 26,001 – 33,000 lbs.

Vehicle Identification Number

4DRBUAAN87A506379

Vehicle Make

International

Vehicle Model

CE

Vehicle Model Year

2007

Highway Engine Information (Complete one row for each engine that powers the existing vehicle)

Engine Serial Number	Engine Family Name	Engine Make	Engine Model	Engine Model Year	Horsepower	Fuel Type	Fuel Used (gallons per year)
2U2143155	6NVXH0466AEA	International	D210	2006	210	Ultra-Low Sulfur Diesel (ULSD)	1333
							Sum: 1333

Annual Miles Traveled

Year	Annual Miles (Miles per Year)
2020	14816
2021	10663
	Average: 12739.5

Number of days operated per week (on average) in 2020 and 2021

5

Remaining Life (Years)

10

New Vehicle Details

Replacement Bus Fuel Type

LPG

Percentage of Time the Affected Equipment will be Operated in Arkansas

100

Emission Reductions Anticipated from the Proposed Project

EPA's Diesel Emission Quantifier may be used to quantify the emissions benefit anticipated from the proposed project. This tool is freely available from the EPA website.

[Click here to access EPA's Diesel Emission Quantifier.](#)

Estimated Emissions Reductions

Pollutant	Annual Tons Reduced	Lifetime Annual Tons Reduced
Nitrogen Oxides (NOx)	0.044	0.437
Fine Particulate (PM2.5)	0.000	0.001
Hydrocarbons (HC)	0.003	0.029
Carbon Monoxide (CO)	-0.049	-0.494
Carbon Dioxide (CO2)	0	0
	Sum: -0.002	Sum: -0.027

Describe the methodology used to calculate estimated emissions reductions from the proposed project.

This is the methodology used to calculate estimated emissions reductions from this proposed project. We calculated the amount of pollutants emitted from diesel fuel per gallon and multiply the number of gallons of diesel fuel used per year.

Then we took the amount of pollutants emitted from propane per gallon and multiply the number of gallons of propane used per year.

After getting the totals we subtracted the pollutants emitted per total gallons of propane per year from the total number of diesel gallons used per year.

Maximum Funding Assistance for this Replacement Bus

The maximum funding assistance value for eligible project costs associated with replacement of this bus is calculated based on user inputs.

Projects selected for award under this program will receive reimbursement for eligible project costs or the maximum funding assistance value, whichever is less, upon completion of the project and receipt by E&E of all required documents. The maximum funding assistance and terms for reimbursement shall be established in a Memorandum of Agreement (MOA) signed by E&E and selected project sponsors. Expenses that pre-date the signed MOA are not eligible for reimbursement. E&E retains the right to partially fund projects if so specified in the MOA.

Maximum Funding Assistance for Replacement of this Bus(\$)

98,000

Project Benefits

Describe how this project will reduce environmental risks to economically-disadvantaged and other populations with disproportionately high and adverse human health or environmental impacts.

Better for Students: Diesel exhaust produces particulate matter that aggravates asthma and other conditions. With propane, there's no smell or particulate matter. Propane buses are much quieter, enabling students to converse and drivers to hear what's happening inside and outside the bus. Buses will be placed on routes in economically disadvantaged neighborhoods.

Describe how this project will reduce environmental risks to the public and sensitive populations.
Switching to environmentally friendly propane buses eliminates an estimated 80% of the smog-producing hydrocarbon generated by diesel engines.

Describe how the project will contribute to the widespread adoption of alternative fuels and advance the establishment of alternative fuel corridors.

The district will allow local media to do articles and ride-along on new buses as well as post the new fleet additions on its website. We push the storyline of saving the taxpayers money and improving air quality and making other districts aware that this option exists

Describe any other benefits this project would produce for the community.

Savings Propane currently costs about half as much as diesel, which adds up to significant savings that districts can use for teachers, resources of educational tools. Lower cost of ownership over time, the district learns that it's cheaper to maintain propane-powered school buses. Propane buses are also notable for what they don't produce: a black cloud of diesel smoke at every bus stop. On-site fueling, superior winter performance.

Partnerships

Partnerships between the applicant and other organizations that advance deployment of alternative fuel stations or public charging infrastructure, or that fund additional vehicle replacements beyond those replaced under the ABC program are strongly encouraged. Partnerships that result in additional publicly available alternative fueling stations or publicly available DC fast chargers within two miles of a designated alternative-fuel corridor or in an underserved area are highly desirable. For the purposes of the ABC program, an underserved area is a location within the state where there are no existing alternative fuel or charging stations to support the replacement vehicles funded under the ABC program within fifty (50) miles of the project.

A full list of designated alternative fuel corridors are listed at
https://www.fhwa.dot.gov/environment/alternative_fuel_corridors/all_corridors/.

Existing alternative fueling stations and electric vehicle infrastructure can be identified using the United States Department of Energy's Alternative Fueling Station Locator:
<https://afdc.energy.gov/stations/#/find/nearest>.

NOTE: No funding is available under this program for the construction of alternative fuel stations and the ABC program will only fund the applicable percentage of one depot charger per bus for projects that replace eligible diesel buses with all-electric buses.

Describe any partnerships with other programs associated with this project, if applicable. Include contact information for a representative from any partner organizations.

N/A

Infrastructure Availability

[List of Fueling Sites.docx - 09/30/2022 12:08 PM](#)

Comment

NONE PROVIDED

Project Milestones

Identify each step necessary to complete the project and milestones for completing each step. Typical steps have been included as defaults. You can revise, add, or remove steps.

Project Step	Estimated Date (MM/DD/YY)
Solicit bids in newspaper of statewide circulation	11/07/2022
Bid(s) awarded	12/07/2022

Project Step	Estimated Date (MM/DD/YY)
New vehicles ordered	12/08/2022
New vehicles delivered	09/04/2023
Old vehicles scrapped	09/15/2023
Final report and reimbursement request sent to DEQ	10/19/2023

Describe your approach to achieving project milestones.

When project approval is granted the bids for two propane school buses will be solicited through the Arkansas Democrat-Gazette newspaper. The bids with all state-required bus specifications will be submitted to the purchasing department of Pulaski County Special School District. The bids will be opened on November 7, 2022 , with all bidders invited to attend the bid openings. The bus specifications and bid details will be reviewed and awarded to the low-cost bidder. Bids will request a 60-day delivery of equipment and old equipment will be scrapped on the day of delivery. The final ADEQ report will be submitted within 30 days of project completion.

CORRECTION REQUEST (APPROVED)

Please verify date in description

Created on 10/31/2022 8:53 AM by **Mikayla Shaddon**

1 COMMENT

Charles W Blake (cblake@pcssd.org) (10/31/2022 2:01 PM)

The date should be November 7, 2022

Total Funding Assistance Requested Summary

Total Number of Vehicles

20

Maximum Funding Amount That Can Be Requested from DEQ (\$)

1960000

Funding Amount Requested from DEQ (\$)

1960000

Attachments

Date	Attachment Name	Context	User
9/30/2022 12:08 PM	List of Fueling Sites.docx	Attachment	Charles Blake

Internal Data

Label	Value
Completeness Check	
Application Complete	Yes

Label	Value
Application Selected for Funding by Selection Committee?	Select
MOA Executed	
Reimbursement Packet Received	
Payment Sent	

Status History

	User	Processing Status
11/1/2022 9:16:37 AM	Charles W Blake	Draft
11/1/2022 9:30:03 AM	Charles W Blake	Submitting
11/1/2022 9:30:18 AM	Charles W Blake	Submitted
11/1/2022 10:49:47 AM	Mikayla Shaddon	Deemed Complete

Audit

Event	Event Description	Event By	Event Date
Submission Locked	Submission Locked	Mikayla Shaddon	10/31/2022 8:05 AM
Submission Unlocked	Submission Unlocked	Mikayla Shaddon	10/31/2022 9:08 AM
Submission Locked	Submission Locked	Mikayla Shaddon	11/1/2022 10:44 AM
Submission Unlocked	Submission Unlocked	Mikayla Shaddon	11/1/2022 10:49 AM
Submission Locked	Submission Locked	Mikayla Shaddon	11/1/2022 10:49 AM

Processing Steps

Step Name	Assigned To/Completed By	Date Completed
Form Submitted	Charles W Blake	11/1/2022 9:30:18 AM
Ensure that all steps have been assigned to the appropriate staff member	Mikayla Shaddon	10/31/2022 8:04:41 AM
Set Submission Assigned Staff in Internal Controls	Mikayla Shaddon	10/31/2022 8:04:43 AM
Select Begin Review to Lock the Submission	Mikayla Shaddon	10/31/2022 8:05:29 AM
Application Completeness and Eligibility Review -If more information is needed or the project is ineligible, insert ineligible or incomplete work flow template between this step and the next step. If complete and eligible, proceed to the next step.	Mikayla Shaddon	11/1/2022 10:49:46 AM
Provide Application to Evaluation Committee	Mikayla Shaddon	

Step Name	Assigned To/Completed By	Date Completed
After reviewing all applications received, proceed with the next steps if this application is recommended for funding. Otherwise, delete remaining steps and insert "Not recommended" workflow.	Mikayla Shaddon	
Notification of Award Recommendation	Mikayla Shaddon	
Prepare MOA & Route via P&P form	Mikayla Shaddon	
Change the Submission Status to "Issued"	Mikayla Shaddon	

Revisions

Revision	Revision Date	Revision By
Revision 1	8/29/2022 3:39 PM	Charles W Blake
Revision 2	10/31/2022 1:48 PM	Charles W Blake
Revision 3	11/1/2022 9:16 AM	Charles W Blake