

Missouri Department of dnr.mo.gov

NATURAL RESOURCES

Michael L. Parson, Governor

Carol S. Comer, Director

FEB 18 2020

Mr. Russell L. Crane
Volkswagen Environmental Mitigation Trust
c/o Wilmington Trust, N.A. as Trustee
1100 North Market Street
Attn: Capital Markets & Agency Services
Wilmington, DE 19890

Dear Mr. Crane,

The Missouri Department of Natural Resources has enclosed Missouri Funding Request #22 through the Volkswagen Environmental Mitigation Trust (Project ID: Cat 7-EMA10 FY20-001). The enclosure is to fulfill the requirement of a hard copy as required by paragraph 5.2 of the Trust Agreement. Also, the department is sending this D-4 submission electronically through Intralinks.

Thank you for attention to this matter. If you have any questions regarding this submission, please contact Emily Wilbur, with the department's Air Pollution Control Program at P.O. Box 176, Jefferson City, MO 65102 [REDACTED].

Sincerely,

AIR POLLUTION CONTROL PROGRAM

Darcy A. Bybee
Director

DAB:cm

Enclosure

APPENDIX D-4
Beneficiary Eligible Mitigation Action Certification

Missouri Funding Request #22

Project ID: Cat 7-EMA10 FY20-001

BENEFICIARY ELIGIBLE MITIGATION ACTION CERTIFICATION

Beneficiary State of Missouri

Lead Agency Authorized to Act on Behalf of the Beneficiary Missouri Department of Natural Resources
(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:	DERA Award Category – FY2020
Beneficiary’s Project ID:	Cat 7-EMA10 FY20-001
Funding Request No.	22
Request Type: (select one or more)	<input type="checkbox"/> Reimbursement <input checked="" type="checkbox"/> Advance <input type="checkbox"/> Other (specify): _____
Payment to be made to: (select one or more)	<input checked="" type="checkbox"/> Beneficiary <input type="checkbox"/> Other (specify): _____
Funding Request & Direction (Attachment A)	<input type="checkbox"/> Attached to this Certification <input checked="" type="checkbox"/> To be Provided Separately

SUMMARY

Eligible Mitigation Action Type	<input type="checkbox"/> Appendix D-2 item (specify): <input checked="" type="checkbox"/> Item 10 - DERA Option (5.2.12) (Match for 2019 Missouri State Clean Diesel Program):
Explanation of how funding request fits into Beneficiary’s Mitigation Plan (5.2.1): Missouri’s Beneficiary Mitigation Plan (BMP) allocates \$3 million to provide the state’s match to the state allocated Diesel Emission Reduction Act (DERA) grant each year throughout the ten-year period of the VW Trust. This funding request will provide the state’s match for Missouri’s state DERA grant for EPA’s 2019 program year. Under this grant program, Missouri plans to provide funding for the replacement of vehicles (school buses), equipment, and an engine in accordance with DERA requirements.	
Detailed Description of Mitigation Action Item Including Community and Air Quality Benefits (5.2.2): Missouri’s work plan and budget for the 2019 Missouri State Clean Diesel Program is attached. Under the grant program, Missouri expects to implement replacements and repowers for nonroad equipment and replacements of school buses.	
Estimate of Anticipated NO_x Reductions (5.2.3): The department used specific equipment replacement information and the EPA Diesel Emissions Quantifier to determine the magnitude of NO _x reduction to be 40 tons over the lifetimes of these projects.	
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): Missouri Department of Natural Resources	
Describe how the Beneficiary will make documentation publicly available (5.2.7.2). The Missouri Department of Natural Resources, as lead agency for the State of Missouri implementing the Environmental Mitigation Plan, has established a webpage on the VW Trust and mitigation actions, https://dnr.mo.gov/env/apcp/vw .	
Describe any cost share requirement to be placed on each NO_x source proposed to be mitigated (5.2.8). Missouri’s DERA grant dollars will be used to fund a portion of the equipment, vehicle, and engine replacement projects. Using the grant dollars and the Trust dollars, the department will provide a percentage of the cost of the new equipment and the equipment owners will pay the remaining cost in accordance with DERA and VW Trust requirements..	
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, the Department notified the Department of Interior, including the National Park Service and U.S. Fish and Wildlife Service, and the Department of Agriculture, including the Forest Service of the availability of VW funds for locations within Missouri. The Department did not receive notice from any federal agency indicating interest in these funds.	
If applicable, describe how the mitigation action will mitigate the impacts of NO_x emissions on communities that have historically borne a disproportionate share of the adverse impacts of such emissions (5.2.10). School bus replacement projects operate primarily around school-aged children, which are a sensitive population. As a sensitive population, children bear an increased share of air pollution burden.	

ATTACHMENTS

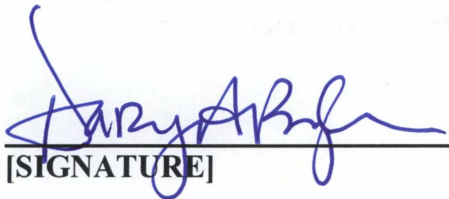
(CHECK BOX IF ATTACHED)

- | | | |
|-------------------------------------|---------------------|---|
| <input type="checkbox"/> | Attachment A | Funding Request and Direction. |
| <input checked="" type="checkbox"/> | Attachment B | Eligible Mitigation Action Management Plan Including Detailed Budget and Implementation and Expenditures Timeline (5.2.4). |
| <input checked="" type="checkbox"/> | Attachment C | Detailed Plan for Reporting on Eligible Mitigation Action Implementation (5.2.11). |
| <input checked="" type="checkbox"/> | 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.] |
| <input checked="" type="checkbox"/> | Attachment E | DERA Option (5.2.12) [Attach only if using DERA option] |
| <input type="checkbox"/> | 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 State of Missouri , 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)



[SIGNATURE]

2/11/2020

[DATE]

DARCY BYBEE

[NAME]

AIR POLLUTION CONTROL
PROGRAM DIRECTOR

[TITLE]

MISSOURI DEPARTMENT OF
NATURAL RESOURCES

[LEAD AGENCY]

For

STATE OF MISSOURI

[BENEFICIARY]

ATTACHMENT B

**Beneficiary Eligible Mitigation Action Certification – Missouri Funding Request #1
Project ID: Cat 7-EMA10 FY19-001**

**Eligible Mitigation Action Management Plan Including Detailed Budget and
Implementation and Expenditures Timeline**

PROJECT MANAGEMENT PLAN

PROJECT SCHEDULE AND MILESTONES

Milestone	Date
Lead agency provides notice of availability of mitigation action funds	August 2019
Due date for project sponsors to submit proposals to lead agency	October 2019
Lead agency provides approval of successful project sponsors' proposals	November 2019
Recipients complete procurement and submit purchase orders	Project approval + 2 months
Buses delivered to project sponsors	Project approval + 5 months
Project sponsors submit evidence of vehicle scrapping, invoices, proof of payment, and other documents required for reimbursement	Project approval + 5.5 months
Lead agency reviews, requests corrections if necessary, certifies project completion, and provides reimbursement	Project approval + 6 months
Lead agency reports to Trustee on status of and expenditures with mitigation actions completed and underway	Within 6 months of first disbursement; Jan. 30 and July 30 thereafter

PROJECT BUDGET

Period of Performance: July 2019 – June 2020

Budget Category	Total Approved Budget	Share of Total Budget to be Funded by the Trust	Cost-Share, if applicable (DERA Grant)	Cost-Share, if applicable (Project Sponsors)
1. Equipment Expenditure	\$2,980,620.50	\$323,511	\$485,267	\$2,171,842.50
2. Contractor Support <i>(Provide List of Approved Contractors as Attachment with approved funding ceilings)</i>	\$0	\$0	\$0	\$0
3. Subrecipient Support <i>(Provide List of Approved Subrecipients or Grant Awardees as Attachment with approved funding ceilings)</i>	\$0	\$0	\$0	\$0
4. Administrative ¹	\$24,263.34	\$9,705.33	\$14,558.01	\$0
Project Totals	\$3,004,883.84	\$333,216.33	\$499,825.01	\$2,121,842.50
Percentage	100%	%11.1	%16.6	%72.3

¹ Subject to Appendix D-2 15% administrative cap.

Beneficiary Eligible Mitigation Action Certification – Missouri Funding Request #1
Project ID: Cat 7-EMA10 FY19-001

PROJECTED TRUST ALLOCATIONS

	FY 2020	FY 2021-28
1. Anticipated Annual Project Funding Requests to be paid through Trust	\$ 14,723,117	\$ 19,350,227
2. Anticipated Annual Cost Share	\$ 18,708,813	\$ 24,627,561
3. Anticipated Total Project Funding by Year (line 1 plus line 2)	\$ 33,431,930	\$ 43,977,788
4. Cumulative Trustee Payments made to Date Against Cumulative Approved Beneficiary Allocation	\$ 7,078,707	\$ 21,801,824
5. Current Beneficiary Project Funding to be paid through the Trust (line 1)	\$ 14,723,117	\$ 19,350,227
6. Total Funding Allocated to Beneficiary, inclusive of Current Action by Year (line 4 plus line 5)	\$ 21,801,824	\$ 41,152,051
7. Beneficiary Share of Estimated Funds Remaining in Trust	\$ 34,073,344	\$ -
8. Net Beneficiary Funds Remaining in Trust, net of cumulative Beneficiary Funding Actions (line 7 minus line 6)	\$ 12,271,520	\$ -

ATTACHMENT C

Detailed Plan for Reporting on Eligible Mitigation Action Implementation (5.2.11)

Records of the applicant, selected projects, and financial reports will be made available on the department's VW webpage in the form of a report to coincide with reporting requirements listed in the trust. Records may also be obtained through the state sunshine request portal.

ATTACHMENT D

Detailed cost estimates from selected or potential vendors for each proposed expenditure exceeding \$25,000 (5.2.6)

Beneficiary Eligible Mitigation Action Certification – Missouri Funding Request #22

Project ID: Cat 7-EMA10 FY20-001

Nonroad Engine Replacement Project

Vehicle/Equipment Type	Diesel
Stationary Baler	\$21,000 - \$32,000

Nonroad Vehicle/Equipment Replacement Projects

Vehicle/Equipment Type	Diesel
40 Ton Haul Truck	\$780,000 - \$117,000
Forklift	\$56,000 - \$84,000
Loader	\$140,000 - \$210,000
Backhoe	\$80,000 - \$120,000

School Bus Replacement Projects

Bus Style	Diesel	Propane	Compressed Natural Gas
Type A	\$60,000 - \$85,000	\$65,000 - \$95,000	\$75,000 - \$105,000
Type B	NA	NA	NA
Type C	\$88,000 - \$120,000	\$100,000 - \$130,000	\$110,000 - \$150,000
Type D	\$100,000 - \$140,000	NA	NA

The department reviewed invoices for school bus purchases that schools have made in recent grants the department administered. School buses are classified by type that reflects passenger capacity and body style. Nonroad equipment price estimates based on submission by program applicants, and are classified by project type and vehicle/equipment use. All projects funded with Volkswagen Trust funds in this EMA are diesel powered.

ATTACHMENT E



Office of Transportation and Air Quality
April 2019

FISCAL YEAR 2019

STATE CLEAN DIESEL GRANT PROGRAM

WORK PLAN AND BUDGET NARRATIVE TEMPLATE

SUMMARY PAGE

Project Title: 2019 Missouri State Clean Diesel Program

Project Manager and Contact Information

Organization Name:	Missouri Department of Natural Resources
Project Manager:	Shelly Reimer
Mailing Address:	P.O. Box 176, Jefferson City, MO 65102-0176
Phone:	(573) 751-4817
Fax:	(573) 751-2706
Email:	shelly.reimer@dnr.mo.gov

Project Budget Overview:

	FY 2019
EPA Base Allocation	\$323,511
State or Territory Voluntary Matching Funds (if applicable)	\$323,511
EPA Match Incentive (Bonus) (if applicable)	\$161,756
Mandatory Cost-Share	\$0
TOTAL Project Cost	\$808,778
Other Leveraged Funds	\$0

Project Period

October 1, 2019 – September 30, 2021

Summary Statement

The department plans to implement a rebate program allowing for all eligible DERA projects in accordance with EPA's 2019 State Clean Diesel Grant Program Information Guide. The department will solicit applications for projects beginning no later than October 31, 2019 in conjunction with Missouri's VW Trust application period. The department will give preference to those projects eligible under DERA that are not an eligible environmental mitigation action under the VW Trust. For as long as DERA funding is available, projects in this award category will not be ranked competitively. In the event the requested funding for projects not eligible under other VW categories is more than is available, the department will select awardees by lottery. In the event there is remaining DERA funding, the department will select these eligible projects from the VW Trust applicants. The department will select projects by ranking the magnitude of NO_x emissions reduction, with the highest emissions reduction receiving DERA funding first. All eligible projects not receiving funding may re-apply in the future.

SCOPE OF WORK

2019 Narrative Project Description:

The department plans to implement a rebate program allowing for all eligible DERA projects in accordance with EPA's 2019 State Clean Diesel Grant Program Information Guide. The department will solicit applications for projects beginning no later than October 31, 2019 in conjunction with Missouri's VW Trust application period. The department will give preference to those projects eligible under DERA that are not an eligible environmental mitigation action under the VW Trust. For as long as DERA funding is available, projects in this award category will not be ranked competitively. In the event the requested funding for projects not eligible under other VW categories is more than is available, the department will select awardees by lottery. In the event there is remaining DERA funding, the department will select eligible projects from the VW Trust applicants. The department will select these projects by ranking the magnitude of NO_x emissions reduction, with the highest emissions reduction receiving DERA funding first. All eligible projects not receiving funding may re-apply in the future.

Requirements/Details: The department will develop Program Requirements in accordance with EPA's state DERA requirements, including mandatory cost-share funding levels. After the department selects the projects to receive awards, the department will develop formal agreements with the recipients. The tasks identified below will guide the awardees and the department toward successful project completion. The timeline identifies anticipated dates for the completion of various milestones.

Tasks

1. **Develop the Program Requirements:** The department will develop Program Requirements that explain all of the eligibility requirements, funding levels, project deadlines, and implementation procedures. The department will also develop an application for funding.

2. **Update Department Website and Solicit Projects:** The department will make the Program Requirements available on the department's website, along with applicable closing dates, project period dates, and instructions explaining the steps to apply for the grant. The website will also include information about the benefits of clean diesel projects and activities.
3. **Announce and Advertise the Program Requirements:** In addition to notification of the application period on our website, the department will send out emails to the following groups: the department's email list-serve for the state clean diesel webpage, the list-serve for Missouri's Volkswagen Trust webpage, and regional planning organizations. The emails will inform the groups of the funding opportunities available and encourage the groups to pass the information along to interested parties.
4. **Review Applications and Select the Awardees:** The department will review each application submission for completeness and ensure that applicants meet all the eligibility requirements. The department will select projects with preference given to those projects eligible under DERA that are not an eligible environmental mitigation action under the VW Trust. For as long as DERA funding is available, projects in this award category will not be ranked competitively. In the event the requested funding for projects not eligible under other VW categories is more than is available, the department will select awardees by lottery. In the event there is remaining DERA funding, the department will select eligible projects from the VW Trust applicants. The department will select these projects by ranking the magnitude of NO_x emissions reduction, with the highest emissions reduction receiving DERA funding first. If a selected recipient declines the award, the department will offer funding to the next highest emission-reducing project.
5. **Award Agreements/Rebate Awards:** The department will develop agreements with the awardees selected to receive funding. The agreements will provide information and requirements necessary to complete each project. In addition, each agreement will include milestones, which if not met, could result in forfeiture of the award, in which case the department would offer funding to the next highest emission-reducing project.
6. **Select Vendors for New Vehicle/Equipment:** All awardees will determine the vendor from which they will purchase the new vehicle or equipment following their procurement procedures. All non-Federal entities, including sub-recipients of a state (other than another state agency), will follow §200.318 General Procurement Standards through §200.326 Contract Provisions.
7. **Collect Pre-Purchase Approval Documentation:** Awardees must submit an invoice with the cost of new vehicle or equipment, and "before" photos of the vehicle or equipment they are replacing, if applicable. The department will review and verify the photo documentation in addition to the final bid. If approved, the department will inform the awardee they may order the new vehicle or equipment.
8. **Purchase the New Vehicle/Equipment:** The awardee will place an order with the vendor they selected. The awardee will pay for 100% of the cost of the new vehicle or equipment to the vendor, and provide proof of payment to the department.

9. **Roll Funding to Next Applicant in Line (if necessary):** The department will place milestone deadlines into the agreement with the awardee. If an awardee fails to select a vendor and place an order for their new vehicle or equipment by the applicable deadline, the department may withdraw the funding opportunity and offer the funds to the next project drawn from the lottery or the highest emission-reducing project. The newly offered applicant will need to be able to complete their project on an expedited schedule.
10. **Disabling Vehicles and Engines:** For applicable projects, awardees must disable their old vehicles or engines within 60 days of the receipt and acceptance of the new vehicle or engine. Disabling requires the chassis to be cut in half, and a hole to be drilled/cut through the engine block. The department plans to allow scrapping the entire vehicle as an acceptable method of disabling. Scrapping entails the crushing/breaking/tearing apart the engine and body/chassis of the vehicles and engines, as is typically done at numerous scrap metal recycling yards. Photos will document the disabling process for each vehicle and engine. If the awardee generates income by selling the disabled vehicle and engine for scrap value or by salvaging/selling non-engine/non-chassis parts, the awardee will document the program income. The department expects that if an awardee generates program income, they will use it to recover a portion of their cost-share for the project.
11. **Reimbursing Awardees:** Upon completion of all documentation, the department will verify all required documentation. If the awardee has fulfilled all documentation requirements, the department will reimburse the awardee.
12. **Monitoring and Reporting:** Either the awardee or the department (if the department decides to witness the disabling process) will take photographs documenting the disabling process. The department will also require photographs of each of the new vehicle, engine, or equipment purchased through the grant. The department will require status reports from awardees throughout the duration of the project. The department will complete and submit quarterly progress reports and a final report to EPA using EPA approved reporting templates.

STATE/TERRITORY GOALS AND PRIORITIES:

Missouri contains a portion of the bi-state St. Louis nonattainment area. The area comprises St. Louis City, and the Counties of St. Louis, St. Charles, and a portion of Franklin and is designated as nonattainment under the 2015 Ozone NAAQS. Mobile sources comprise a significant percentage of emissions that contribute to fine particulate matter and ozone formation, with over 20 billion vehicle miles traveled annually in the St. Louis area.

According to EPA's 2019 Priority County List, there are seven counties outside of the St. Louis nonattainment area including Boone, Cass, Clay, Jackson, Johnson, Pettis, and Saline Counties. Portions of the population in these seven counties receive exposure to more than 2.0 $\mu\text{g}/\text{m}^3$ of diesel particulate matter emissions according to the 2011 National Scale Air Toxics Assessment. There are also four Ozone Advance areas in Missouri including Kansas City, Joplin, Springfield, and Southeastern Missouri.

Diesel fleets across the state vary widely. The Missouri River runs through the middle of the state from Kansas City to St. Louis, which generates diesel traffic from locomotives, marine engines, and other industry. Kansas City and St. Louis each contain international airports, major railroad hubs, marine ports, and significant on-road diesel vehicle traffic. The entire eastern edge of the state borders the Mississippi River, which likewise generates diesel traffic from marine, rail, and other industries. There are dozens of smaller regional airports throughout the state. Missouri has more than 550 public school districts, nearly all of which offer transportation to students. Numerous cities around the state offer transportation services via diesel-powered public transit buses. Greater than 100 incorporated cities offer public and/or contracted refuse-hauling services. Missouri contains over 1,100 miles of interstate highway and approximately 40,000 miles of total roadway system. This complex system generates billions of vehicle miles traveled annually, and accommodates tens of thousands of public and commercial diesel trucks.

VEHICLES AND TECHNOLOGIES:

The department will first target eligible DERA projects that are not eligible environmental mitigation actions under the VW Trust. These projects include those highlighted in yellow in the following table. If there is an insufficient number of eligible projects, the department will select projects from those VW EMAs not highlighted in the table, beginning with projects with the calculated highest NO_x emissions reductions. Considering the wide range of projects, it is impossible to project in advance the number of each type of eligible project the department will fund. The department will only fund eligible projects not to exceed the maximum cost-share allowance.

VW EMAs 1-9 Eligible Activities and Mitigation Trust Funding Limits	VW EMA 10 (DERA Option) Eligible Activities and DERA Funding Limits*
<p>Class 4-7 Local Freight Truck Class 8 Local Freight Trucks Class 8 Port Drayage Trucks</p> <p>Engine Model Year 1992-2009 Engine Replacement: 40-75% non-gov, 100% gov Vehicle Replacement: 25-75% non-gov, 100% gov</p> <p>Engine Model Year 2010-2012 only where State regulations already require upgrades to 1992-2009 engine model year trucks Engine Replacement: 40-75% non-gov, 100% gov Vehicle Replacement: 25-75% non-gov, 100% gov</p>	<p>Class 5-8 All Diesel Highway Vehicles Class 8 Diesel Drayage Trucks</p> <p>Engine Model Year 1996-2009 Engine Replacement: 40-60% Vehicle Replacement: 25-45% (50% for Dray) Retrofits +/- Aero, LRR Tires: 100% Idle Reduction (no APUs or generators on 2007 or newer model year engines): 25% (100% w/ retrofit) Clean Alternative Fuel Conversion: 40%</p> <p>Engine Model Year 1996 or newer Engine Replacement (All-electric): 60% Vehicle Replacement (All-electric): 45% (50% for Dray) Clean Alternative Fuel Conversion: 40%</p>

VW EMAs 1-9 Eligible Activities and Mitigation Trust Funding Limits	VW EMA 10 (DERA Option) Eligible Activities and DERA Funding Limits*
<p>Class 4-8 School Bus Class 4-8 Shuttle or Transit Bus</p> <p>Engine Model year 2009 or Older Engine Replacement: 40-75% non-gov, 100% gov Vehicle Replacement: 25-75% non-gov, 100% gov</p> <p>Engine Model Year 2010-2012 only where State regulations already require upgrades to 1992-2009 engine model year buses Engine Replacement: 40-75% non-gov, 100% gov Vehicle Replacement: 25-75% non-gov, 100% gov</p>	<p>Type A, B, C, D Diesel School Bus Class 5-8 Diesel Shuttle, Transit or Other Bus</p> <p>Engine Model Year 1996-2009 Engine Replacement: 40-60% Vehicle Replacement: 25-45% Retrofits +/- Aero, LRR Tires: 100% Idle Reduction: 25% Clean Alternative Fuel Conversion: 40%</p> <p>Engine Model Year 1996 or newer Engine Replacement (All-electric): 60% Vehicle Replacement (All-electric): 45% Clean Alternative Fuel Conversion: 40%</p>
<p>Freight Switchers 1000+ hours per year</p> <p>Pre-Tier 4 Engine Replacement: 40-75% non-gov, 100% gov Vehicle Replacement: 25-75% non-gov, 100% gov</p>	<p>Diesel Locomotives 1000+ hours per year</p> <p>Unregulated - Tier 2 Line Haul and Switcher Tier 2+ Switcher Engine Replacement: 40-60% Remanufacture: 40% Vehicle Replacement: 25-45% Retrofits: 100% Idle Reduction/Shorepower: 40%</p> <p>Tier 2+ Line Haul Retrofits: 100% Idle Reduction/Shorepower: 40% Remanufacture: 40%</p>
<p>Ferries/Tugs</p> <p>Unregulated-Tier 2 Ferry and Tug Engines Engine Replacement/Reman/Upgrade: 40-75% non-gov, 100% gov Vehicle Replacement: 25-75% non-gov, 100% gov</p>	<p>Marine Diesel Engines 1000+ hours per year</p> <p>Unregulated-Tier 2 Marine Engines Engine Replacement/Reman/Upgrade: 40-60% Vessel Replacement: 25-45%</p>
<p>Ocean Going Vessel and Great Lakes Vessels Shorepower</p> <p>Costs associated with the shore-side system and installation Non-government Owned: 25% Government Owned: 100%</p>	<p>Marine Shore Power Connection Systems</p> <p>Costs associated with the shore-side system and installation: 25%</p>

VW EMAs 1-9 Eligible Activities and Mitigation Trust Funding Limits	VW EMA 10 (DERA Option) Eligible Activities and DERA Funding Limits*
	Electrified Parking Spaces (EPS) Costs associated with the equipment and installation to provide off-board electrical power to heating/cooling/electrical systems of hoteling trucks, or to plug-in trailer refrigeration systems: 30%
Airport Ground Support Equipment (GSE) Tier 0-Tier 2 Diesel engines Uncertified, or certified to 3 g/bhp-hr or higher emissions, spark ignition engines Engine Replacement (All-electric): 75% non-gov, 100% gov	Nonroad Diesel Engines Construction, Cargo Handling (Ports and Airports), Agriculture, Mining, Energy Production 500+ hours per year (250+ hrs for ag pumps) Tier 0-Tier 3 0-50 HP, 2006 and newer
Vehicle Replacement (All-electric): 75% non-gov, 100% gov	51-300 HP, 1996 and newer 301+ HP, 1986 and newer Engine Replacement/ Reman/Upgrade: 40-60% Vehicle/Equipment Replacement (Diesel, Alt Fuel, Hybrid): 25-35% Vehicle/Equipment Replacement (All-electric): 45% Retrofits: 100% Engine Replacement (Diesel, Alt Fuel): 40-50% Engine Replacement (All-electric): 60% Reman/Upgrade: 40%
Forklifts and Port Cargo Handling Equipment Forklifts, reach stackers, side loaders, and top loaders with >8000lbs lift capacity Rubber-tired gantry cranes, straddle carriers, shuttle carriers, terminal tractors Engine Replacement (All-electric): 75% non-gov, 100% gov Vehicle Replacement (All-electric): 75% non-gov, 100% gov	
Light Duty Zero Emission Vehicle Supply Equipment A State may use up to fifteen percent (15%) of its allocation of Trust Funds on costs for the acquisition, installation, operation and maintenance of new light duty zero emission vehicle supply equipment for projects as specified in Appendix D-2, EMA #9.	

ROLES AND RESPONSIBILITIES:

The department does not intend to include any project partners to help implement the 2019 State DERA Program. The department will work with each selected awardee individually as a partner under the 2019 program. The department will provide technical assistance and oversight as needed to ensure the successful implementation of project. The department will distribute awards in the form of rebates upon completion of each project. The total cost of each project, allowing for eligible expenses only, will determine the amount of each award. From the total cost, the department will calculate the DERA funding maximum and the mandatory cost-share requirement.

TIMELINE AND MILESTONES:

The following table includes a timeline of expected target dates, milestones, and completion dates to achieve specific tasks and accomplishments during the budget and project period.

2019 Program

Milestone	Expected Date
Department develops the Program Requirements	June – August 2019
Program Requirements and applications released to the public, and posted on the department’s website	September – October 2019
Department selects projects	September 2019 – January 2020
Pre documentation approvals	October 2019 – April 2020
Equipment order deadline (or award rolls to the next applicant)	November 2019 – May 2020
Vehicle and engine disabling	January 2020 – June 2021
Site inspections for new buses/old buses being disabled	January 2020 – June 2021
Reimbursements	After completion of each individual project (No later than September 2021)
Awardees submit status reports to the Department	Every quarter of the project
Department submits quarterly progress reports to EPA	Every quarter of the project
Projects completed	September 30, 2021
Missouri submits final report to EPA	December 31, 2021

DERA PROGRAMMATIC PRIORITIES:

The primary objective of this program is to reduce diesel emissions resulting in reducing diesel particulate matter and precursors (NO_x) that lead to the formation of ground-level ozone. The department expects the 2019 program to reduce diesel emissions from fleets throughout the state, including areas in Missouri facing air quality challenges. The emission reductions will be achieved through utilization of EPA certified engine configurations that replace engines with less stringent emission standards and additional equipment that improves fuel efficiency. Reducing diesel emissions can help reduce the frequency of negative health symptoms for anyone with asthma or other respiratory diseases. Diesel emission reductions can also contribute to achieving or maintaining attainment of PM_{2.5} and Ozone NAAQS.

EPA'S STRATEGIC PLAN LINKAGE AND ANTICIPATED OUTCOMES/OUTPUTS:

The department expects the 2019 program to reduce diesel emissions from fleets throughout the state, including areas in Missouri facing air quality challenges. The emission reductions will be achieved through utilization of EPA certified engine configurations that replace engines with less stringent emission standards and additional equipment that improves fuel efficiency. Diesel emission reductions can also contribute to achieving or maintaining attainment of PM_{2.5} and Ozone NAAQS ensuring more Missourians are living and working in areas that meet high air quality standards.

Outputs

The expected outputs of the 2019 program are to reduce diesel emissions from fleets throughout the state. Because the department has not yet selected the 2019 projects to receive funding, the department cannot yet calculate the emission reductions that will result from the 2019 program. Missouri anticipates that the 2019 DERA funding of \$808,778, which is a larger amount than past programs, will reduce diesel emissions and improve air quality more than in the past. The department will continually report outputs in the requisite quarterly reports.

Outcomes

- **Short-term outcomes:** The 2019 program will help a wide variety of owners of diesel engines upgrade or replace engines, or add equipment that will reduce diesel emissions and conserve diesel fuel. It will provide both public and private owners an opportunity to implement early replacements with the goal of reducing diesel emissions and fuel consumption, without paying full price for the equipment. The new engine configurations include the latest and most stringent emission control technologies factory installed. As the fleet owners grow accustomed to these technologies they could decide to use their own funding to replace additional vehicles, upgrade engines, or add equipment.
- **Medium-term outcomes:** By successfully implementing the projects under the 2019 program, other fleet owners will see the fuel economy improvements, the reduced operational costs, and the environmental benefits and subsequently decide to implement similar projects.
- **Long-term outcomes:** Through these projects, improved air quality measurements are expected in the future, and are anticipated to result in a decrease in the number of asthma attacks and other health issues exasperated by air pollution in and around the state of Missouri.

SUSTAINABILITY OF THE PROGRAM:

The department anticipates the emission reductions realized through the 2019 program to continue after the project period. EPA certified engine configurations have long expected useful lives, and the improvement in operating costs expected by some of the fleets involved could stimulate investments in technologies that improve fuel economy and reduce emissions. The fleets will also grow more accustomed to modern mobile source emission control equipment, which will improve acceptance of the new equipment and best practices for maintenance of such equipment.

BUDGET NARRATIVE

Itemized Project Budget

Budget Category	EPA Allocation	Mandatory Cost-Share	Voluntary Match (if applicable)		Line Total
			VW Mitigation Trust Funds	Other Funds	
1. Personnel	\$29,721				\$29,721
2. Fringe Benefits	\$16,382				\$16,382
3. Travel	\$750				\$750
4. Equipment	0				0
5. Supplies	0				0
6. Contractual	0				0
7. Other	\$426,489		\$323,511		\$750,000
8. Total Direct Charges (sum 1-7)	\$473,342		\$323,511		\$796,853
9. Indirect Charges	\$11,925				\$11,925
10. Total (Indirect + Direct)	\$808,778				\$808,778
11. Program Income					
12. Other Leveraged Funds*					

*Do not include Other Leveraged Funds on SF-424 or SF-424A

Explanation of Budget Framework

1. Personnel

Category	FY 2019	
	EPA	State or Territory Match (if applicable)
Environmental Specialist, Project Manager \$20.90/hr x 832 hrs	\$17,392	\$0
Administrative Clerical (payment processing, documentation review etc.), \$14.11/hr x 210 hrs	\$2,966	
Financial & Administrative Manager, \$25.72/hr x 364 hrs	\$9,363	\$0

2. Fringe Benefits

	FY 2019	
Category	EPA	State or Territory Match (if applicable)
Social Security @ 7.65%	\$2,274	\$0
Health Insurance @ 27.14%	\$8,066	\$0
Retirement @ 20.33%	\$6,042	\$0

3. Travel

	FY 2019	
Category	EPA	State or Territory Match (if applicable)
<i>Site visits</i>		
Local Travel Mileage – 2,885 miles x \$0.26	\$750	\$0

4. Equipment - \$0 - There is no equipment in this grant except for the diesel emission reduction equipment that awardees will purchase. The department reports those costs under the “other” (PSD) award category.

5. Supplies

	FY 2019	
Category	EPA	State or Territory Match (if applicable)
NA		

6. Contractual

	FY 2019	
Category	EPA	State or Territory Match (if applicable)
NA		

7. Other

	FY 2019	
Category	EPA	State or Territory Match (if applicable)
Other – PSD	\$426,489	\$323,511

8. Total Direct Charges

	FY 2019	
Category	EPA	State or Territory Match (if applicable)
Direct	\$473,342	\$323,511

9. Indirect Charges

	FY 2019	
Category	EPA	State or Territory Match (if applicable)
Indirect Rate 25.45%	\$11,925	

Note: Indirect is not applied to the Other/PSD category above.