

APPENDIX D-4
Beneficiary Eligible Mitigation Action Certification

BENEFICIARY ELIGIBLE MITIGATION ACTION CERTIFICATION

Beneficiary The District of Columbia

Lead Agency Authorized to Act on Behalf of the Beneficiary District Department of Energy and Environment (DOEE)
(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:	Amtrak DC Rail Yard Locomotive Switcher Upgrades
Beneficiary's Project ID:	DC - VWAMTK
Funding Request No.	(sequential) DC - VWAMTK - 008
Request Type: (select one or more)	☐ Reimbursement ☐ Advance ☒ Other (specify): <u>Update to Obligation</u>
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>Locomotive Switcher Engine Replacement Project</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 request is for reimbursement of administrative expenses incurred in the course of coordinating the Switcher project. Pages 11, 12, 13 and 17 of DC's Beneficiary Mitigation Plan (BMP) outlines how these expenses fit into the overall project goals.	
Detailed Description of Mitigation Action Item Including Community and Air Quality Benefits (5.2.2): This Mitigation Action Item aims to upgrade up to five Locomotive Switcher Engines in the District of Columbia. The Mitigation Action Item is detailed on Pages 11, 12, and 13 and of DC's BMP. Benefits, including estimated reductions in NOx and PM2.5 are on pages 20 and 23 of DC's BMP. Please find the BMP attached.	
Estimate of Anticipated NOx Reductions (5.2.3): 12.9 tons per year of NOx are expected to be avoided per Switcher replaced. Reductions are summarized in the BMP on pages 18 and 20.	
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): Department of Energy and the Environment (DOEE), District of Columbia Government	
Describe how the Beneficiary will make documentation publicly available (5.2.7.2). Page 10 of DC's BMP describes how documentation will be made publicly available.	
Describe any cost share requirement to be placed on each NOx source proposed to be mitigated (5.2.8). Amtrak (Switcher owner) will be responsible for covering 75% of the cost per switcher. DC's DERA grant and allocated VW Settlement funds jointly cover the remaining 25%.	
Describe how the Beneficiary complied with subparagraph 4.2.8, related to notice to U.S. Government Agencies (5.2.9). Letters to the appropriate parties were sent over email on Monday, February 12, 2018.	

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).
Please refer to page 22 of DC's BMP for how this project relates to these communities.

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 The District of Columbia, 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: April 14, 2026



Digitally signed by Joseph Jakuta
DN: cn=Joseph Jakuta, o=DC
DOEE, ou=Air Quality Division,
email=joseph.jakuta@dc.gov,
c=US
Date: 2026.04.15 09:06:17 -04'00'

Joseph Jakuta, Associate Director, Air Quality Division

[NAME]

[TITLE]

Department of Energy and Environment

[LEAD AGENCY]

for

The District of Columbia

[BENEFICIARY]

ATTACHMENT B

DC - VWAMTK

Eligible Mitigation Action Management Plan, Including: Detailed Budget, Implementation, and Expenditures

Pursuant to Section 5.2.4 of the Environmental Mitigation Trust Agreement, the District of Columbia Department of Energy and Environment (DOEE) provides the following Eligible Mitigation Action Management Plan.

The milestone dates and yearly budget distributions provided are estimates and are subject to change. DOEE currently plans to replace one Switcher per fiscal year, beginning in Fiscal Year (FY) 2020. DOEE's fiscal year begins on October 1 of the previous calendar year and ends on September 30 of the year with which it is numbered (for example, FY 2020 began on October 1, 2019, and will end on September 30, 2020).

Project Implementation Schedule and Milestones

Project: Amtrak DC Rail Yard Locomotive Switcher Upgrades

Project ID: DC - VWAMTK

Period of Performance: October 2018 – September 2026 (FY 2019 – FY 2026)

Milestone	Date
DOEE Planning and Development Begins	October 2018
DOEE Provides Notice of Availability – RFP	April 26, 2019
Applicants Submit Proposals to DOEE	May 28, 2019
DOEE Issues Grant Award Notice to and a purchase order (PO) to Applicant	September 12, 2019
Work Begins on Grant	September 12, 2019
Grantee Submits Invoices for Expenses Incurred	Continuous after September 12, 2019 until close
DOEE Submits D-4 to Trustee (with FY19 request)	January 2020
Trustee Acknowledges Receipt of D-4	January 2020
Trustee Approves D-4	January/February 2020
Grantee Enters into MOA with Amtrak	September 30, 2022
Grantee Issues RFP for Vendors	September 30, 2022
Vendor Contract Awarded	April 24, 2023
Old Switchers Delivered to vendor for Replacement	December 30, 2023
New Switcher Delivered to Amtrak	March 23, 2026
Parties Approve Work; Submit Final Report, Close Project for Switchers 1 and 2	September 30, 2026

TOTAL PROJECT BUDGET – FY 2019–FY 2026

Amtrak DC Rail Yard Locomotive Switcher Upgrades

All AMTK drawdowns will be complete by Sept 30, 2026.

Category	Total	Share of Budget Funded by VW Trust	Cost-Share Amtrak	DERA Grant
Equipment	\$3,470,800	\$347,080	\$2,603,100	\$520,620
Grantee Administrative	\$60,000.00	\$60,000.00	\$0	\$0
DOEE Administrative	\$81,975.24	\$81,975.24	\$0	\$0
Percent of Equipment Expenditure	100%	10%	75%	15%
Total	\$3,612,775.24	\$489,055.24	\$2,603,100.00	\$520,620.00

ATTACHMENT C

Detailed Plan for Reporting on Eligible Mitigation Action Implementation (S.2.11)

Switcher Locomotive Replacement Project ID: DC – VWAMTK

Pursuant to Sections 5.2.11 and 5.3 of the Environmental Mitigation Trust Agreement, DOEE provides this project implementation reporting plan for the Amtrak DC Rail Yard Locomotive Switcher Replacement project undertaken by DOEE's sub-grantee in partnership with Amtrak. This detailed plan for reporting incorporates applicable DOEE sub-grantee reporting requirements as well as DOEE's obligation to comply with the semi-annual reporting requirement contained in Section 5.3 of the Environmental Mitigation Trust Agreement. Sub-grantee will provide the reports as specified below to DOEE. Further, DOEE will provide reports to the U.S. Environmental Protection Agency (EPA) as required for the DERA grant on 1/31, 4/30, 7/31, and 10/31 of each year the grant is active. The reporting deadlines contained herein are estimates and may be subject to change.

Report	Due
Work Plan (including budget and timeline) from sub-grantee to DOEE	10/15/2019
Quarterly Report #1 from sub-grantee to DOEE	10/15/2019
Quarterly Report #2 from sub-grantee to DOEE	1/15/2020
Semi-Annual Project Report from DOEE to Trustee	1/31/2020
Quarterly Report #3 from sub-grantee to DOEE	4/15/2020
Quarterly Report #4 from sub-grantee to DOEE	7/15/2020
Semi-Annual Project Report from DOEE to Trustee	7/31/2020
Quarterly Report #5 from sub-grantee to DOEE	10/15/2020
Quarterly Report #6 from sub-grantee to DOEE	1/15/2021
Semi-Annual Project Report from DOEE to Trustee	1/31/2021
Quarterly Report #7 from sub-grantee to DOEE	4/15/2021
Quarterly Report #8 from sub-grantee to DOEE	7/15/2021
Semi-Annual Project Report from DOEE to Trustee	7/31/2021
Quarterly Report #9 from sub-grantee to DOEE	10/15/2021
Quarterly Report #10 from sub-grantee to DOEE	1/15/2021
Semi-Annual Project Report from DOEE to Trustee	1/31/2021
Quarterly Report #11 from sub-grantee to DOEE	4/15/2021
Quarterly Report #12 from sub-grantee to DOEE	7/15/2021

Semi-Annual Project Report from DOEE to Trustee	7/31/2021
Quarterly Report #13 from sub-grantee to DOEE	10/15/2021
Quarterly Report #14 from sub-grantee to DOEE	1/15/2021
Semi-Annual Project Report from DOEE to Trustee	1/31/2021
Quarterly Report #15 from sub-grantee to DOEE	4/15/2021
Quarterly Report #16 from sub-grantee to DOEE	7/15/2021
Semi-Annual Project Report from DOEE to Trustee	7/31/2021
Quarterly Report #17 from sub-grantee to DOEE	10/15/2021
Quarterly Report #18 from sub-grantee to DOEE	1/15/2022
Semi-Annual Project Report from DOEE to Trustee	1/31/2022
Quarterly Report #19 from sub-grantee to DOEE	4/15/2022
Quarterly Report #20 from sub-grantee to DOEE	7/15/2022
Semi-Annual Project Report from DOEE to Trustee	7/31/2022
Quarterly Report #21 from sub-grantee to DOEE	10/15/2022
Quarterly Report #22 from sub-grantee to DOEE	1/15/2023
Semi-Annual Project Report from DOEE to Trustee	1/31/2023
Quarterly Report #23 from sub-grantee to DOEE	4/15/2023
Quarterly Report #24 from sub-grantee to DOEE	7/15/2023
Semi-Annual Project Report from DOEE to Trustee	7/31/2023
Quarterly Report #25 from sub-grantee to DOEE	10/15/2023
Quarterly Report #26 from sub-grantee to DOEE	1/15/2024
Semi-Annual Project Report from DOEE to Trustee	1/31/2024
Quarterly Report #27 from sub-grantee to DOEE	4/15/2024
Quarterly Report #28 from sub-grantee to DOEE	7/15/2024
Semi-Annual Project Report from DOEE to Trustee	7/31/2024
Quarterly Report #29 from sub-grantee to DOEE	10/15/2024
Quarterly Report #30 from sub-grantee to DOEE	1/15/2025
Semi-Annual Project Report from DOEE to Trustee	1/31/2025
Quarterly Report #31 from sub-grantee to DOEE	4/15/2025
Quarterly Report #32 from sub-grantee to DOEE	7/15/2025
Semi-Annual Project Report from DOEE to Trustee	7/31/2025
Quarterly Report #33 from sub-grantee to DOEE	10/15/2025
Quarterly Report #34 from sub-grantee to DOEE	1/15/2026
Semi-Annual Project Report from DOEE to Trustee	1/31/2026
Quarterly Report #35 from sub-grantee to DOEE	4/15/2026
Quarterly Report #36 from sub-grantee to DOEE	7/15/2026
Semi-Annual Project Report from DOEE to Trustee	7/31/2026
Final Report from sub-grantee to DOEE	10/15/2026
Final Project Report from DOEE to Trustee	10/30/2026

Reporting will continue in the pattern set above on a semi-annual schedule to the Trustee from DOEE and a quarterly schedule from sub-grantee to DOEE (includes final reports) for subsequent Switcher repowers until all repower work has been completed. Quarterly reporting to EPA will end in FY26, the anticipated end date of the DERA grant. Extension of grants or additional grants may require additional reporting.

Report Content

Sub-grantee and DOEE reports will contain at a minimum:

1. Summary of all costs expended through the reporting period and to-date
2. Project status and development and implementation accomplishments
3. Any project modifications, including timeline, compared to proposal and work plan

Attachment D:
Project ID: DC – VWAMTK

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

Description	Repower Equipment Estimate
Switcher Locomotive Repower (Switcher 1) – Tier 4 or better	\$1,735,400
Switcher Locomotive Repower (Switcher 2) – Tier 4 or better	\$1,735,400
Total	\$3,470,800

Cost estimates are based on the proposal from selected sub-grantee for the Switcher repower. Selected sub-grantee has worked on previous Switcher repowers and this previous work assisted in informing their estimate.

Attachment E: DERA Option

Pursuant to Appendix D-2 and Section 5.2.12 of the Environmental Mitigation Trust Agreement, the project (Project ID: DC - VWAMTK) associated with this Funding Request involves use of the DERA Option. DOEE's DERA work plans and awards are attached.

2020 Diesel Emissions Reduction Act (DERA) State Grants

Work Plan and Budget Narrative Template – Amended May 2024

INSTRUCTIONS: States and territories applying for 2020 DERA State Grant funds must use this template to prepare their Work Plan and Budget Narrative.

Please refer to the 2019-2020 DERA State Grants Program Guide full program details, eligibility criteria and funding restrictions, and application instructions.

SUMMARY PAGE

Project Title: District of Columbia FY 2020 State DERA Grant

Project Manager and Contact Information

Organization Name: Department of Energy and Environment

Project Manager: Joseph Jakuta

Mailing Address: 1200 First Street, NE, 5th Floor, Washington, DC 20002

Phone: Desk: 202-535-2988 Cell: 202-669-5817

Email: joseph.jakuta@dc.gov

Project Budget Overview:

Table 1: Project Budget Overview

	2019*	2020
EPA Base Allocation	\$315,344	\$327,102
EPA Match Bonus (if applicable)	\$157,672	\$163,551
State or Territory Voluntary Matching Funds (if applicable)	\$345,344**	\$357,102**
Mandatory Cost-Share	\$1,744,544	\$1,761,062
TOTAL Project Cost	\$2,562,904	\$2,608,817

*If state participated in 2019

**Includes \$30,000 of administrative costs related to the switcher locomotive replacement project. See related information in the “Other” section of the budget breakdown.

Project Period

October 1, 2019 – September 30, 2026

Revision Summary Statement

[The District of Columbia Department of Energy and Environment \(DOEE\) requests a no-cost extension through September 30, 2026, to allow for the completion of the stated work.](#)

[The vendor working on the switcher replacement project has made significant progress on the new switchers. The vendor estimates the delivery of the new switchers to be before the end of the calendar year. This extension will provide ample time for switchers to be received and documentation completed.](#)

Georgetown University was selected for funding under the vehicle replacement project. After being informed of the award in March of 2024, they began contacting vendors for their replacement bus and delivery timelines were estimated to be at least 18 months. If Georgetown moves ahead with procurement as planned starting in August of 2024, this extension would provide enough time for vehicles to be delivered and outgoing vehicles scrapped.

~~The District of Columbia's (District) Department of Energy and Environment/Air Quality Division (DOEE/AQD) is proposing to spend the 2019 and 2020 DERA Grant funds to replace two switcher locomotives (core swap plus engine repower). Both locomotives will be powered with an EPA Certified Tier 4 Generator Set (GenSet) or cleaner engine upon completion of the project. A vendor was selected to complete this work through a competitive process administered by Metropolitan Washington Council of Governments (MWCOC). DOEE is also proposing to set up a rebate program with the remaining funds for zero emission replacements of onroad diesel vehicles. DOEE posted solicitation for applications for this program and is in the process of awarding funding. The District will be using a portion of its Volkswagen Settlement Funds as a State Voluntary Match for the FY 2019 and FY 2020 DERA grants. FY 2019 DERA funds were awarded in October 2019 and FY 2020 DERA funds were awarded the following year.~~

SCOPE OF WORK

DOEE will work with Amtrak to procure two replacement switcher locomotives operating between Union Station and the Ivy City Railyard to help reduce diesel emissions in the District. DOEE will spend the remainder of the DERA Grant towards a rebate program that will fund replacements of onroad diesel medium and/or heavy duty vehicles.

~~This extension request adjusts the budget to reflect a vehicle replacement instead of an engine replacement for both of the Amtrak switchers, which was the preferred approach for Amtrak after a review of vendor proposals submitted during the competitive RFP process.~~

STATE/TERRITORY GOALS AND PRIORITIES: The District is currently in attainment with national ambient air quality standards (NAAQS) for particulate matter (PM_{2.5}), carbon monoxide (CO), lead, sulfur dioxide (SO₂), nitrogen dioxide (NO₂). The District is now in moderate nonattainment for the 2015 ozone NAAQS and in maintenance of the 2008 ozone standards. Therefore, there is a need to find additional reductions of oxides of nitrogen (NO_x) emissions, a precursor for ozone, including from sources of diesel emissions to attain the 2015 and maintain the 2008 ozone NAAQS.

According to the 2014 National Emissions Inventory, 6,518 tons of NO_x were emitted from the mobile sector in the District, and of that total, 3,909 tons were emitted from diesel vehicles. The mobile sector also accounted for 383 tons of PM_{2.5} emissions, with diesel vehicles emitting 226 tons per year.

Diesel emissions contain NO_x, PM_{2.5}, and air toxics. Because of the negative impacts of PM_{2.5} and NO_x on public health, including respiratory impacts such as asthma and cardiac-related problems, EPA has set health-based NAAQS for these pollutants. Air toxics also have well-known negative effects on human health. In the District, asthma affects nearly 15.5 percent of

children under 18, compared to a national rate of less than 9 percent. The proposed projects will immediately reduce diesel emissions and improve public health since emission reductions from heavy-duty diesel engines can achieve some of the most significant NO_x reductions among the clean diesel options.

VEHICLES AND TECHNOLOGIES:

Switcher Locomotive Vehicle Replacement

Amtrak will swap the cores of two switcher locomotives with a similar switcher and repower each with a Tier 4 GenSet or cleaner engine to reduce emissions from diesel exhaust. The switcher locomotives operate daily at both Union Station and the Ivy City Railyard and move or “switch” rail cars around the railyards. The switcher locomotives are considered certified eligible vehicles as defined in Section VIII.B of the DERA Program Guide. One switcher project will occur corresponding to each DERA Grant award.

Diesel Vehicle Replacement

DOEE will establish a rebate program (covering up to 45 percent of cost for eligible vehicles) for privately owned fleets to replace class 5+ Medium Heavy Duty Vehicles (MHDV) with Zero Emissions Vehicles (ZEVs) to reduce emissions from diesel exhaust. DOEE will prioritize awarding funds to fleets that operate in communities overburdened by poor air quality or who serve populations vulnerable to diesel exhaust. The proposed vehicle replacements in this work plan are transit, shuttle, and school buses. However other eligible vehicles may be considered during the application process. Buses are considered certified eligible vehicles as defined in Section VIII.B of the DERA Program Guide. The vehicle replacements will be open to public and private entities. The vehicles selected will meet EPA’s eligibility criteria under VIII.C of the DERA Program Guide. Once selected, applicants will need to complete an eligibility statement.

ROLES AND RESPONSIBILITIES:

Switcher Locomotive Vehicle Replacement

DOEE will issue a sub-grant to administer the replacement of two qualifying Amtrak diesel switchers. The sub-grantee will develop the scope, deliverables, schedule, activities, and funding of the project at the approval of DOEE. Amtrak will then work, with consultation with the sub-grantee, to administer the project, request proposals from vendors, select manufacturers of equipment, and execute contracts. DOEE will verify that the project is eligible. Amtrak must provide proof that each switcher has been in use for at least 1,000 hours annually; the sub-grantee will oversee the project and will provide quarterly reports on the status of the project. Upon successful completion of the replacement, Amtrak must scrap the old engines and provide documentation to the sub-grantee and DOEE. When the replaced switchers arrive to Washington, DC, DOEE will inspect the switcher to verify that the work was performed. DOEE will reimburse the sub-grantee once the sub-grantee submits an invoice to DOEE along with the necessary documentation. The sub-grantee’s management costs will be borne by the Volkswagen funds solely.

Diesel Vehicle Replacement

DOEE will solicit for applications in the spring 2023 for eligible entities maintaining fleet vehicles in the District and will determine awardees based on the vehicle's annual miles traveled, years of remaining vehicle life, and use near communities overburdened by poor air quality or vulnerable populations served. DOEE will confer with EPA program officers in selecting fleet owners to fund. DOEE will issue rebates to the awarded fleet owners after purchase of zero emissions vehicles. The fleet owner will select a vendor for their new equipment in communication with DOEE and execute contracts. Next, DOEE will verify that the project is eligible. Throughout the process, fleet owners will provide quarterly reports on the status of the project. Upon successful completion of the new vehicle replacement, the fleet owner must scrap the old vehicle and provide documentation to DOEE. DOEE will inspect the new vehicle to verify that it is an eligible vehicle, and DOEE will collect financial documentation of the transaction. Upon satisfactory review, DOEE will provide participant support cost through a rebate program and the fleet owner will retain title of the vehicle.

TIMELINE AND MILESTONES:

Table 2: Switcher Locomotive Vehicle Replacement - Timeline and Milestones

Action: Switcher 1	Schedule
Grant Award FY19 Switcher 1	August 12, 2019*
Award sub-grantee – Switcher 1	February 1, 2020*
Sub-grantee to sign MOU with Amtrak – Switcher 1	December 15, 2022*
Procurement process – Switcher 1	April 15, 2023*
Vehicle replacement – Switcher 1	October 31, 2024 ³
Track performance (inspections) – Switcher 1	December 31, 2024 ³
Project completion – Switcher 1	April 1, 2025 ⁴
Action: Switcher 2	Schedule
Grant Award FY20 – Switcher 2	October 1, 2020*
Publish Request for Application (RFA) – Switcher 2 (if necessary)	n/a
Award sub-grantee – Switcher 2 (if necessary)	March 2, 2020 (later amended to include diesel funds)*
Sub-grantee to sign MOU with Amtrak – Switcher 2 (if necessary)	December 15, 2022*
Procurement process – Switcher 2	April 15, 2023*
Vehicle replacement – Switcher 2	October December 31, 2024 ³
Track performance (inspections) – Switcher 2	January-February 28 ³ , 2025 ³
Project completion – Switcher 2	September-June 1 ³ , 2025 ⁴

* Completed

Diesel Vehicle Replacements

Table 3: Vehicle Replacement Timeline and Milestones

Action	Schedule
Applications period ends	April 19, 2023*
Select-Award project(s)	June-March 15, 2024 ^{3*}
Procurement process	October-August 15, 2024 ³
Fleet owner quarterly reporting to DOEE begins	August-April 15, 2024 ³
Vehicle replacement DOEE quarterly reporting to EPA begins	February 28, 2026 July 31, 2023
Project completion Vehicle replacement	May 31, 2026 February 28, 2024
Project completion	June 30, 2024

* [Completed](#)

EPA’S DERA PROGRAMMATIC PRIORITIES:

The District is considered a priority area under EPA’s 2019 National Priority Area List for the 2008 and 2015 ozone NAAQS, 1997 PM_{2.5} NAAQS, and National Air Toxics Assessment (NATA). The District is designated as nonattainment under the 2015 Ozone NAAQS, and in maintenance for the 2008 Ozone NAAQS. Thus it is a priority to focus on the reduction of NO_x and PM_{2.5} emissions. Both the switcher vehicle replacement and diesel vehicle electrification projects will immediately reduce diesel emissions and improve public health.

The cost effectiveness of the switcher locomotive replacement was calculated to be approximately \$67,263/ton of NO_x reduction based on a cost of \$1.735 million and an emission reduction of 25.8 tons per year (tpy). The cost effectiveness for the diesel vehicle replacement is \$998,559/ton of NO_x reduction.

The locomotive switcher replacements also meet one of the programmatic priorities by being located in a railyard. This location is considered to be an area that bears a disproportionate amount of air pollution under the programmatic priorities under VIII.D of DERA’s Program Guide.

STRATEGIC PLAN LINKAGE AND ANTICIPATED OUTCOMES/OUTPUTS:

Goal 1 of EPA’s 2018-2022 Strategic Plan is “Deliver a cleaner, safer, and healthier environment for all Americans and future generations by carrying out the Agency’s core mission.” The proposed projects will replace two heavy-duty diesel switcher locomotive engines with a new Tier 4 GenSet or cleaner, and replace medium- and heavy-duty diesel vehicles with zero emissions vehicles, both of which will emit much lower levels of NO_x and PM_{2.5}. As a result, local and regional air will become cleaner and safer, and as a result, health for Americans now and in the future will be improved.

The outputs of DOEE’s proposed projects include a switcher locomotive replacement and the replacement of two or more medium- and heavy-duty diesel vehicles with zero emissions vehicles. The number of vehicles replaced through the rebate program is uncertain at this point as it is open to any interested entity, but we assumed up to four vehicles.

Both the switcher locomotive vehicle replacements and the medium- and heavy-duty vehicle replacements will result in environmentally beneficial outcomes, both in the short- and long-term. As a result of the proposed projects, in the short term, the District will have decreased daily and weekly NO_x and PM_{2.5} emissions and thus decreased exposure to these pollutants of residential communities located near the railyards and tourists visiting Union Station. The proposed projects will reduce NO_x and PM_{2.5} emissions over the course of years, helping to reduce the formation of ozone in the District and to maintain the status as attainment for fine particulates. In the long term, the reduction of diesel emissions resulting from the proposed project will help to reduce the asthma rate in the District. The outcomes for both projects can be seen in the table below.

Table 1: Emission Reduction Benefits

Output	Outcome	
	NO _x Reduced (tpy)	PM _{2.5} Reduced (tpy)
Two GenSet Replacements	25.8	0.58
Vehicle Replacements	0.257	0.002
Total Reduction	26.057	0.582

Emissions benefits for the switcher locomotive replacements and the vehicle replacements (assuming replacement of three large shuttle buses) were calculated using EPA’s Diesel Emissions Quantifier.

In addition to emission reductions, these projects will result in reduced fuel consumption. The switcher vehicle replacement is estimated to result in savings of about 12,300 gallons of diesel annually per single replacement. Vehicle replacement projects will also result in reduced fuel consumption. A single vehicle replacement is estimated to result in savings of 4,938 gallons of diesel annually.

SUSTAINABILITY OF THE PROGRAM: Both the switcher locomotive vehicle replacement and diesel vehicle replacement projects will be permanent installations, and thus will continue to reduce harmful emissions throughout their useful life.

DOEE will have a press event with Amtrak upon the completion of the project. DOEE will also send out periodic tweets on both the switcher locomotive and diesel vehicle replacement projects, which will be posted to DOEE’s website, doee.dc.gov.

BUDGET NARRATIVE

This section of the work plan should include a detailed itemized budget proposal (in addition to the Standard Form 424A), using the table below. Justify the expenses for each of the categories being performed within the grant/project period. Indicate which costs will be paid by the state's or territory's allocation from EPA (which would include the bonus match, if applicable) and which costs will be paid by the state's or territory's voluntary matching funds, if applicable.

Applicants must **itemize** costs related to personnel, fringe benefits, travel, equipment, supplies, contractual costs, other direct costs, indirect costs, and total costs. If the project budget includes any cost-share, mandatory or voluntary, the budget detail portion of the work plan must include a detailed description of how the applicant will obtain the cost-share and how the cost-share funding will be used. Applicants may not know the final projects at the time of submitting the application, but are encouraged to include a best estimate of the type and quantity of equipment impacted by the grant and the corresponding cost-shares.

If EPA accepts an offer for a voluntary cost-share, applicants must meet their sharing commitment in order to receive EPA funding. If the proposed cost-share is to be provided by a third-party, a letter of commitment is encouraged. Any form of cost-share included in the budget detail must also be included on the SF-424 and SF-424A.

Applicants should use the following instructions, budget category descriptions and example table to complete the budget detail section of the work plan. Detailed sample budgets representing various mandatory cost-share versus state voluntary match scenarios are available at: www.epa.gov/cleandiesel/clean-diesel-state-allocations.

Table 5: FY2019 and FY2020 Itemized Project Budget

Budget Category	Fiscal Year	EPA Allocation	Mandatory Cost-Share	Voluntary Match (if applicable)		Line Total
				VW Mitigation Trust Funds	Other Funds	
1. Personnel						
2. Fringe Benefits						
3. Travel						
4. Equipment						
5. Supplies						
6. Contractual						
7. Other	FY2019	\$473,016	\$1,744,544.00	\$345,344		\$2,562,904.00
	FY2020	\$490,653	\$1,761,062.00	\$357,102		\$2,608,817.00
	Total	\$963,669	\$3,505,606	\$702,446		\$5,171,720
8. Total Direct Charges (sum 1-7)	FY2019	\$473,016	\$1,744,544.00	\$345,344		\$2,562,904.00
	FY2020	\$490,653	\$1,761,062.00	\$357,102		\$2,608,817.00
	Total	\$963,669	\$3,505,606	\$702,446		\$5,171,720
9. Indirect Charges						
10. Total (Indirect + Direct)	FY2019	\$473,016	\$1,744,544.00	\$345,344		\$2,562,904.00
	FY2020	\$490,653	\$1,761,062.00	\$357,102		\$2,608,817.00
	Total	\$963,669	\$3,505,606	\$702,446		\$5,171,720
11. Program Income						
12. Other Leveraged Funds*						

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

Explanation of Budget Framework

- Personnel**
 Management of the FY 2019 and FY 2020 DERA funds will be included in the management of the Appendix D Volkswagen settlement process, so an additional allocation of personnel is not necessary for this application.
- Fringe Benefits**
 Management of the FY 2019 and FY 2020 DERA funds will be included in the management of the Appendix D Volkswagen settlement process, so an additional allocation of fringe is not necessary for this application.
- Travel**
 There will be no travel related costs involved.

- **Supplies**

There will be no supply related costs involved.

- **Equipment**

No equipment that will remain District property is being purchased for this grant.

- **Contractual**

There are no contractual costs involved.

- **Other**

Switcher Project Subgrant

Two switchers will be replaced as the first project under this grant. It is classified as “other” since the District is not maintaining ownership of the equipment and will be considered participant support costs. Switcher locomotives are expected to be replaced with a Tier 4 or higher GenSet engine. The switcher replacement projects have the equipment owner contributing to 75 percent of the assumed \$3,470,800 in total cost. The management costs in the subgrant are borne out entirely of the Volkswagen fund and are programmed to cost \$30,000 per switcher. One switcher will be replaced per DERA grant year.

Vehicle Rebate Program

The target fleets are fleets owned and operated within the District’s boundaries. We anticipate approximately three new vehicles will be purchased under this program with an average cost of \$314,508 per vehicle ~~and approximately four vehicles will be replaced.~~ Vehicles must be zero-emission, and the fleet owner will be responsible for providing 55 percent of the cost. Pursuant to EPA’s DERA program guide, chargers may also be purchased including the unit and charging cable, mount, and/or pedestal. Chargers are subject to mandatory cost-share. Mandatory cost-share allocations are based on the information found at www.epa.gov/cleandiesel/clean-diesel-state-allocations.

- **Indirect Charges**

Since there are no personnel or fringe benefit costs, there are no indirect costs.

Administrative Costs Expense Cap

States and territories must demonstrate that no more than 15% of a state’s or territory’s total project costs are being used to cover administrative costs as identified in OMB Circular A-87 Appendix B (e.g. personnel, benefits, travel, supplies). Total project costs include the federal share as well as any cost-share provided by the state. However, Regions have the discretion to allow state matching funds to exceed the 15% cap if the state provides justification for unique circumstances. The 15% maximum does not include indirect cost rates or funds assigned to projects, and total cost for the budget period, which is represented in the above table.

Matching Funds and Cost-Share Funds

The entirety of the voluntary matching funds from DOEE will be provided through the Volkswagen Settlement Appendix D Option 10 (DERA Option) funding mechanism. DOEE is the designated beneficiary for the District.

The mandatory cost-share funds for 75% of the cost of replacement of the switcher locomotive with a GenSet engine will be provided by Amtrak and guaranteed through an MOU with a subgrantee of DOEE.

The mandatory cost-share funds for 55% of the cost of replacing a diesel vehicle with a zero-emission vehicle will be borne by the designated fleet owner.

Funding Partnerships

Funds for both the switcher replacements will be disbursed to DOEE partners as sub-award. Administrative costs will not be borne by this grant.

Funds for the diesel vehicle rebate program will be disbursed to DOEE partners using the “participant support cost” mechanism. Administrative costs will not be borne by this grant.

Other Leveraged Funds

No other leveraged funds will be used.