

## BENEFICIARY ELIGIBLE MITIGATION ACTION CERTIFICATION

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Beneficiary Commonwealth of Pennsylvania (PA)

Lead Agency Authorized to Act on Behalf of the Beneficiary Department of Environmental Protection (DEP)  
*(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)*

<b>Action Title:</b>	Driving PA Forward - Project Group 11
<b>Beneficiary's Project ID:</b>	0004-11A
<b>Funding Request No.</b>	<i>(sequential)</i> 0004
<b>Request Type: (select one or more)</b>	<input checked="" type="checkbox"/> Reimbursement <span style="margin-left: 200px;"><input type="checkbox"/> Advance</span> <input type="checkbox"/> Other (specify): _____
<b>Payment to be made to: (select one or more)</b>	<input checked="" type="checkbox"/> Beneficiary <input type="checkbox"/> Other (specify): _____
<b>Funding Request &amp; Direction (Attachment A)</b>	<input checked="" type="checkbox"/> Attached to this Certification <input type="checkbox"/> To be Provided Separately

### SUMMARY

<b>Eligible Mitigation Action</b>	<input type="checkbox"/> Appendix D-2 item (specify): _____
<b>Action Type</b>	<input checked="" type="checkbox"/> Item 10 - DERA Option (5.2.12) (specify and attach DERA Proposal): See Attac
<b>Explanation of how funding request fits into Beneficiary's Mitigation Plan (5.2.1):</b> These projects comply with PA's stated overall goal of funding projects... See Attachment 1.	
<b>Detailed Description of Mitigation Action Item Including Community and Air Quality Benefits (5.2.2):</b> The purpose of these projects is to replace 4 Class 8 Trucks (Waste Haulers). These projects will improve the air quality in the communities in where they are located by ... See Attachment 1.	
<b>Estimate of Anticipated NOx Reductions (5.2.3):</b> These projects are expected to reduce 3.357 tons of NOx emissions annually and 24.245 tons.. See Attachment 1.	
<b>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):</b> The DEP is the government entity responsible for reviewing and auditing...See Attachment 1.	
<b>Describe how the Beneficiary will make documentation publicly available (5.2.7.2).</b> The DEP has created, and will maintain, a public web site as a clearinghouse...See Attachment 1.	
<b>Describe any cost share requirement to be placed on each NOx source proposed to be mitigated (5.2.8).</b> For these projects, the applicants committed to funding 86.0 percent for vehicle replacements. The DEP has committed to reimburse 14.0 percent (11.2 percent Trust funds ...See Attachment 1.	
<b>Describe how the Beneficiary complied with subparagraph 4.2.8, related to notice to U.S. Government Agencies (5.2.9).</b> The DEP complied with subparagraph 4.2.8 by submitting letters to the pers... See Attachment 1.	

**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).**

**These projects address pollution in areas which bear a disproportionate share... See Attachment 1.**

**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 Commonwealth of Pennsylvania, 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:** 11/25/2020

Honorable Patrick McDonnell, Secretary

[NAME]

[TITLE]

Department of Environmental Protection

[LEAD AGENCY]

for

Commonwealth of Pennsylvania

[BENEFICIARY]

  
X \_\_\_\_\_

**Attachment 1 to Appendix D-4 and Attachment A  
DEP Funding Request 0004-11A**

**Explanation of how funding request fits into Beneficiary's Mitigation Plan (5.2.1):**

These projects comply with PA's stated overall goal of funding projects throughout PA that will reduce or eliminate emissions of oxides of nitrogen (NO<sub>x</sub>), focusing on the most cost-effective projects that will maximize emission reductions, including those that focus on: large number of diesel engines and vehicles; priority areas; National Ambient Air Quality Standard (NAAQS) nonattainment or maintenance areas; high population density and high traffic density areas; and advancing PA's energy, environmental, or economic development goals. These projects comply with PA's stated intent to consider funding for all Eligible Mitigation Actions and Eligible Mitigation Action Administrative Expenditures. These projects are included under the DERA-eligible projects funding category identified in PA's Beneficiary Mitigation Plan (BMP) and are within the percentage of funding PA expects to request for this category. If scrappage requirements apply to these Eligible Mitigation Actions, funding recipients were required to submit proof of scrappage for the project. These projects will contribute to PA's expected NO<sub>x</sub> emission reductions from the DERA-eligible projects category established in PA's BMP. Finally, these projects were awarded funding under a grant program, identified as an eligible funding mechanism by PA in its BMP.

**Detailed Description of Mitigation Action Item Including Community and Air Quality Benefits (5.2.2):**

The purpose of these projects is to replace 4 Class 8 Trucks (Waste Haulers). These projects will improve the air quality in the communities where they are located by reducing exposure of NO<sub>x</sub> and other emissions from diesel-powered mobile sources to residents and others. For vehicle and engine replacement or repower projects, this will occur as a result of a cleaner vehicle or engine replacing the older diesel vehicle or engine. In addition to the NO<sub>x</sub> emission reductions listed below, these projects will annually reduce 0.194 tons of volatile organic compounds (VOC) and 0.185 tons of fine particulate matter (PM<sub>2.5</sub>). Additionally, these projects will result in lifetime emission reductions of 1.459 tons of VOC and 1.433 tons PM<sub>2.5</sub>.

**Estimate of Anticipated NO<sub>x</sub> Reductions (5.2.3):**

These projects are expected to reduce 3.357 tons of NO<sub>x</sub> emissions annually and 24.245 tons of lifetime NO<sub>x</sub> emissions.

**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):**

The DEP is the government entity responsible for reviewing and auditing expenditures of Eligible Mitigation Action funds to ensure compliance with applicable laws in accordance with subparagraph 5.2.7.1.

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

The DEP has created, and will maintain, a public web site as a clearinghouse for information relating to the Environmental Mitigation Trust Agreement for State Beneficiaries, including

all public information relating to PA's Beneficiary Mitigation Plan and programs funded by the State Mitigation Trust. On this web site or an associated web site, DEP will post summary information about all funding requests submitted to the Trustee, including the funding recipient, funding amount, and a brief summary of the project. In addition to the summary information, DEP will post and comply with the following statement: "The following is a summary of all funding requests submitted to the Trustee. Public records supporting the submitted funding requests, and public records supporting all expenditures of the Trust Fund by PA, are available to the public upon request, subject to all applicable laws governing the publication of confidential business information and personally identifiable information. A public record excludes confidential proprietary information, confidential business information, and personal identification information. Please contact DEP for additional information." The web site can be accessed at:  
<https://www.dep.pa.gov/Business/Air/Volkswagen/Pages/default.aspx>.

**Describe any cost share requirement to be placed on each NO<sub>x</sub> source proposed to be mitigated (5.2.8):**

For these projects, the applicants committed to funding 86.0 percent for vehicle replacements. The DEP has committed to reimburse 14.0 percent (11.2 percent Trust funds and 2.8 percent EPA match funds) of the total project costs, through a direct payment from the Commonwealth. The funds used for payment will be transferred to a Commonwealth account by the Trustee from PA's allocation of the State Mitigation Trust, in accordance with approved Appendix D-4s. See Appendix D-4, Attachment B for detailed project budgets.

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

The DEP complied with subparagraph 4.2.8 by submitting letters to the personnel at the U.S. Department of the Interior and the U.S. Department of Agriculture on February 8, 2018. In the letters, DEP explained that PA may request Eligible Mitigation Action funds for use on lands within the custody, control, or management (including, but not limited to, Clean Air Act Class I and II areas) of these agencies. Additionally, DEP set forth in the letters the procedures by which PA will review, consider, and make a written determination on requests for funding from these agencies, in accordance with subparagraph 4.2.8. The DEP provided a copy of the Trust Agreement with Attachments as an attachment to the letters.

**If applicable, describe how the mitigation action will mitigate the impacts of NO<sub>x</sub> emissions on communities that have historically borne a disproportionate share of the adverse impacts of such emissions (5.2.10).**

These projects address pollution in areas which bear a disproportionate share of the air pollution burden, such as NAAQS nonattainment or maintenance areas, brownfields, Environmental Justice areas, and/or high pollution areas (ports, bus depots, etc.). These projects accomplish that goal by reducing exposure to emissions for residents where the replaced vehicles operate. DEP's programs, through application scoring or eligibility criteria, give additional weight to projects occurring in these types of communities, thus prioritizing funding in these areas.

**PA – ATTACHMENT B**  
**ELIGIBLE MITIGATION ACTION MANAGEMENT PLAN INCLUDING**  
**DETAILED BUDGET AND IMPLEMENTATION AND EXPENDITURES**  
**TIMELINE**

*(Attachment to Appendix D-4, Beneficiary Eligible Mitigation Action Certification, pursuant to Paragraph 5.2 of the Environmental Mitigation Trust Agreement)*

Beneficiary Project ID: 0004-11A

This attachment provides a Detailed Budget and Implementation and Expenditure Timeline for the above referenced project.

1. Detailed Project(s) Budget - The following chart provides details about the project budget.

<b>Budget Category</b>	<b>DEP/ Trust Fund Amount</b>	<b>(EPA DERA funds where applicable)</b>	<b>Recipient Match Amount</b>	<b>Total</b>
Vehicle/Engine purchase costs	\$156,451.64	\$38,943.00	\$1,200,281.36	\$1,395,676.00
Overpayment Adjustment	(\$9,722.80)	\$0.00	\$0.00	(\$9,722.80)
Administrative Costs	\$22,009.33	\$0.00	\$0.00	\$22,009.33
<b>Total</b>	<b>\$168,738.17</b>	<b>\$38,943.00</b>	<b>\$1,200,281.36</b>	<b>\$1,407,962.53</b>

Descriptions of Budget Categories

- Vehicle/Engine purchase costs – This category includes the following for onroad vehicles and engines: new engine purchase cost, including taxes and fees; and new vehicle purchase costs, including taxes and fees, for similarly outfitted vehicle. This category is primarily for replacements.
- Equipment purchase costs – This category includes new equipment purchase costs, including nonroad vehicles and equipment.
- Engine installation costs – This category includes new engine installation costs, for vehicles or equipment. This category is primarily for repowers.
- EVSE with vehicle/engine purchase costs – This category includes: electric vehicle supply equipment (EVSE) purchase cost; EVSE installation costs; electric service upgrades; and connecting EVSE to electrical service. This category is for vehicle, engine, and equipment replacements and repowers.
- EVSE for Level 2 projects – This category includes the following costs for Level 2 EVSE: EVSE purchase cost; EVSE installation costs; electric service upgrades; connecting EVSE to electrical service; networking charges; EVSE maintenance contracts; signage for public access projects; and lighting for public access projects.
- EVSE for DCFC and H2FC projects – This category includes the following costs for DC fast charging (DCFC) infrastructure or hydrogen fuel cell refueling (H2FC) infrastructure projects: project/site design; DCFC & HFCF equipment costs; Level 2 EVSE costs (only when combined with new DCFC at the same location); ZEVSE installation costs; electric service upgrades; connecting ZEVSE to electrical service; charging network costs; maintenance costs; signage; onsite lighting of the ZEVSE and affiliated parking spaces; and battery storage.
- Subtotal - This category includes all project costs except administrative costs.
- Administrative Costs - This category includes administrative costs for DEP. DEP is not submitting administrative costs for funding recipients.

2. Trust Allocation Budget – The following chart shows the expenditures and balance of PA’s allocation of the State Mitigation Trust.

	<b>2018</b>	<b>2019</b>	<b>2020</b>
PA’s Trust Allocation	\$118,569,539.52	\$118,569,539.52	\$117,757,871.06
Previously Approved Disbursements	\$0.00	\$811,668.46	\$14,853,160.08
Submitted but Pending Approval	\$0.00	\$0.00	\$2,634,803.16
Amount of this Funding Request	\$0.00	\$0.00	\$168,738.17
Remaining Balance after Approval of Funding Request	\$118,569,539.52	\$117,757,871.06	\$100,101,169.65

3. Program Implementation Schedule – The following chart provides the implementation schedule followed for the program under which the project(s) in this funding request is/are funded. See the project schedule below for details on project implementation.

<b>Program Activity – FY2017-2018 PA State Clean Diesel Grant Program</b>	<b>Date</b>
Program opens for applications/ public notice of program opening	May 19, 2018; and January 31, 2020
Informational webinar on program	June 6, 2018; and February 19, 2020
Program closed for applications	July 6, 2018; and March 6, 2020
Awards announced	September 28, 2018; and ongoing

4. Project Implementation Schedule – The following chart provides the implementation schedule followed for the project(s). Rebate programs allow 180 days (six months) for project completion. Grant programs allow 1-2 years for project completion, with extensions possible on a case-by-case basis.

	<b>Action</b>	<b>Responsible Party</b>	<b>Date of Action Completion</b>
1	Purchase of 4 new CNG Class 8 trucks	Valley Waste Service Inc.	New trucks purchased 09/2020; old trucks scrapped 3/26/2020, 3/30/2020 (2), and 9/30/2020.
2	Administrative Expenditures for Program	Commonwealth of Pennsylvania	4/21/2020 – 10/9/2020

PA – ATTACHMENT B ELIGIBLE MITIGATION ACTION MANAGEMENT PLAN

	<b>Action</b>	<b>Responsible Party</b>	<b>Date of Action Completion</b>
**	FR0003 Overpayment Adjustment	Vogel Disposal Service, Inc.	10/10/20

5. Expenditures – The following chart shows the invoice amounts and the corresponding rebate voucher redemption requests (by invoice) submitted to DEP for these projects, including details of what expenditures are included in each invoice.

	<b>Invoice Date(s)</b>	<b>Invoice Total</b>	<b>Reimbursement Amount</b>	<b>Invoice ID</b>	<b>Description of Expenditures</b>
1	9/29/20 (4 invoices)	\$1,395,676.00	\$156,451.64 – Trust \$38,943.00 - EPA	A1-201902282976 – A4-201902282976	Purchase of 4 new CNG Class 8 trucks/ waste haulers
2	10/10/20	\$23,467.75	\$23,467.75	COPA-11A	Administrative Expenditures for administration of the program
**	10/10/20	\$0.00	(\$9,722.80)	N/A	FR0003 Overpayment Adjustment



**PA – ATTACHMENT C**  
**DETAILED PLAN FOR REPORTING ON**  
**ELIGIBLE MITIGATION ACTION IMPLEMENTATION**

*(Attachment to Appendix D-4, Beneficiary Eligible Mitigation Action Certification, pursuant to Paragraph 5.2 of the Environmental Mitigation Trust Agreement)*

**Reporting from Recipients to DEP (5.2.11)**

Under paragraph 5.2.11, DEP, on behalf of the Commonwealth of Pennsylvania, is required to provide a detailed plan for reporting on Eligible Mitigation Action implementation. DEP has included reporting requirements, described below, for all funding recipients.

For grant programs, funding recipients are required to submit quarterly, final, and one-year follow-up reports to DEP. The quarterly reports must be submitted to DEP within 14 days of March 31, June 30, September 30, and December 31, during the term of the grant agreement. These reports include a summary of project activities during the reporting period (linked to the recipient's workplan), a summary of expenses incurred during the reporting period and whether a reimbursement request was submitted, and identification of any issues that will impact project completion. Additionally, funding recipients are required to submit a final report to DEP upon completion of the project, no later than 30 days after the end of the term of the grant agreement. The final report includes a summary of all project work completed under the grant agreement, a summary of all expenses incurred during the project period and verification that all reimbursement requests have been submitted to DEP, emission reduction estimates for the completed project, and proof of scrappage when applicable. Finally, funding recipients are required to submit a one-year follow up report one year from the completion of the project, but no later than one year and 30 days after the end of the term of the grant agreement for vehicle, engine, or equipment repower or replacement projects. The one-year follow up report for these projects includes: a brief summary of the original project; a brief summary of any positive or negative experiences the recipient had relating to the equipment/vehicles funded by the grant agreement during the year following the project completion; current operating status of equipment/vehicles funding by the grant; estimates of vehicle/equipment operating data such as estimates of operating hours, emission reductions, idling reductions, fuel use savings, and other information. For light-duty zero emission supply equipment grants, the funding recipient is required to submit annual station usage data for three years, beginning one year after project completion.

For vehicle, engine, or equipment repower or replacement rebate programs, funding recipients are required to submit annual usage data one year after project completion. For light-duty zero emission supply equipment projects, funding recipients must submit annual station usage data for three years, beginning one year after project completion.

DEP will use the information submitted by the funding recipients, as described above, to complete and submit reports to the Trustee as required by paragraph 5.3 (see next section).

PA – ATTACHMENT C DETAILED PLAN FOR REPORTING ON  
ELIGIBLE MITIGATION ACTION IMPLEMENTATION

The project(s) submitted for funding under this Funding Request are:

- Grants
- Rebates
- Other: (specify)

**Reporting from DEP to Trustee (5.3)**

Under paragraph 5.3, for each Eligible Mitigation Action, DEP, on behalf of the Commonwealth of Pennsylvania, is required to submit to the Trustee no later than six months after receiving the 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, a semi-annual 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). These reports will include a complete description of the status (including actual or projected termination date), development, implementation, and any modification of each approved Eligible Mitigation Action. 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.

Using the information submitted to DEP by the funding recipients as described above, DEP will submit the semi-annual report required by paragraph 5.3 on the schedule indicated above. The report will include the following information:

- A list or other description of all active and completed projects that have been or will be funded, partially or fully, by PA's allocation of the State Mitigation Trust fund, and completion date if applicable.
- The status (active or complete) of the projects. No projects will be listed as proposed because DEP is not requesting advance funding for any projects and will only be requesting funds for completed projects.
- Funding amount requested from State Mitigation Fund allocation for each complete project or funding amount allocated for each active project.
- For DERA projects, the most recent quarterly status report submitted to the U.S. Environmental Protection Agency.

The semi-annual report will be signed by an official with the authority to submit the report for the Commonwealth of Pennsylvania and will contain an attestation that the information is true and correct and that the submission is made under penalty of perjury.

**PA – ATTACHMENT D**  
**DETAILED COST ESTIMATES FROM SELECTED OR POTENTIAL**  
**VENDORS FOR EACH PROPOSED EXPENDITURE EXCEEDING \$25,000**

*(Attachment to Appendix D-4, Beneficiary Eligible Mitigation Action Certification, pursuant to Paragraph 5.2 of the Environmental Mitigation Trust Agreement)*

Attached on the following pages are actual cost documentation for projects including selected, potential, or actual vendor expenditures exceeding \$25,000. Invoice information is provided in a spreadsheet format. Copies of individual invoices are available upon request.

Also attached is DEP's invoice for Eligible Mitigation Action Administrative Expenditures.

**PA DEP 0004-11A Invoice Spreadsheet EMA 10**

Group ID	Recipient Name	Project / Invoice ID	Invoice Date(s)	Invoice Amount	Vendor	Reimbursement from Trust	Reimbursement from EPA	Total Reimbursement Amount	Description of Expenditures
1 / A	Valley Waste Service Inc.	A1-201902282976	9/29/2020	\$331,420.00	Hunter Truck Sales and Service Inc.	\$39,112.91	\$9,735.75	\$48,848.66	New MY2020 Class 8 truck
		A2-201902282976	9/29/2020	\$331,420.00	Hunter Truck Sales and Service Inc.	\$39,112.91	\$9,735.75	\$48,848.66	New MY2020 Class 8 truck
		A3-201902282976	9/29/2020	\$366,418.00	Hunter Truck Sales and Service Inc.	\$39,112.91	\$9,735.75	\$48,848.66	New MY2020 Class 8 truck
		A4-201902282976	9/29/2020	\$366,418.00	Hunter Truck Sales and Service Inc.	\$39,112.91	\$9,735.75	\$48,848.66	New MY2020 Class 8 truck
<b>SUBTOTAL (ALL PROJECTS)</b>				\$1,395,676.00	SUBTOTAL (Reimbursements)	\$156,451.64	\$38,943.00	\$195,394.64	
***	Vogel Disposal Service, Inc.	FR0003 Overpayment Adjustment	10/10/20	\$0.00	N/A	-\$9,722.80	\$0.00	-\$9,722.80	FR0003 Overpayment Adjustment
2 / COPA	Commonwealth of PA	COPA	10/10/20	\$22,009.33	Commonwealth of Pennsylvania	\$22,009.33	\$0.00	\$23,467.75	Administrative costs for Driving PA Forward programs
<b>EMA 10 TOTAL PROJECT COSTS</b>				<b>\$1,417,685.33</b>		<b>\$168,738.17</b>	<b>\$38,943.00</b>	<b>\$209,139.59</b>	

**Pennsylvania Department of  
Environmental Protection**

**INVOICE**

400 Market Street  
Harrisburg, PA 17101  
717-737-9495

**DATE:** October 10, 2020  
**#** COPA-11A  
**FOR:** *State Mitigation  
Trust Administrative  
Expenditures*

**Bill To:**

Environmental Mitigation Trust for  
State Beneficiaries  
C/O Wilmington Trust  
Rodney Square North  
1100 North Market Street  
Wilmington, DE 19890-0001

ELIGIBLE MITIGATION ACTIONS	ADMINISTRATIVE EXPENDITURES CATEGORY	PA PROGRAM	DESCRIPTION	HOURS	AMOUNT
EMA 10 - Diesel Emission Reduction Act (DERA) Option	Personnel and Fringe Benefits (Detailed hours report available upon request)	PA State Clean Diesel Grant Program (DERA) FY2017-2018	This item includes all staff hours worked for the development and management of this program. Activities include the following: concept development for the program; development of program guidelines and application questions, online application, application instructions, associated forms and documents; webinar presentation by staff; response to public questions; assistance with applications; review and scoring of applications; processing grant agreements; and monitoring of funded projects including tracking reporting and confirming project activities.	391.06	\$ 22,009.33
<b>TOTAL</b>					<b>\$ 22,009.33</b>

Wire Transfer Information Provided in Attachment A to this submission.  
If you have any questions concerning this invoice, Contact Samantha Harmon, 717-705-7686, saharmon@pa.gov.

**THANK YOU!**

**PA – ATTACHMENT E**  
**DERA OPTION**

*(Attachment to Appendix D-4, Beneficiary Eligible Mitigation Action Certification, pursuant to Paragraph 5.2 of the Environmental Mitigation Trust Agreement)*

Attached on the following pages are DEP's Workplans and Budget Narratives submitted to the U.S. Environmental Protection Agency (EPA) as part of DEP's application for the EPA's FY2017 and FY2018 State Clean Diesel Program (DERA). The attached Workplans and Budget Narratives corresponds to the fiscal year funding that is being used to partially fund the project(s) submitted for reimbursement under this funding request. The FY2017 application was submitted to EPA on June 9, 2017, and the FY2018 application was submitted to EPA on June 20, 2018; both were approved by EPA.

**FISCAL YEAR 2017**

**STATE CLEAN DIESEL GRANT PROGRAM**

**WORK PLAN AND BUDGET NARRATIVE TEMPLATE**

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**SUMMARY PAGE**

**Project Title:** FY 2017 Pennsylvania State Clean Diesel Grant Program

**Project Manager and Contact Information**

**Organization Name:** Pennsylvania Department of Environmental Protection (PA DEP or Department) Bureau of Air Quality

**Project Manager:** Samantha Harmon

**Mailing Address:** P.O. Box 8468, Harrisburg, PA 17105-8468

**Phone:** 717.705.7686

**Fax:** 717.772.2303

**Email:** saharmon@pa.gov

**Project Budget Overview:**

	<b>FY 2017</b>
EPA Base Allocation	\$275,479.00
State or Territory Matching Funds (if applicable)	\$275,479.00
EPA Match Incentive (if applicable)	\$137,739.00
Mandatory Cost-Share	\$0.00
<b>TOTAL Project</b>	<b>\$688,697.00</b>
Additional Leveraged Resources	\$0.00

**Project Period**

The project period will begin October 1, 2017 and end September 30, 2018. See project timeline on page 7 for additional details.

## **Summary Statement**

PA DEP requests \$413,218.00 (base and bonus funding) for fiscal year (FY) 2017 Diesel Emission Reduction Act funding. PA DEP intends to provide voluntary match funds for FY 2017. The source of these funds will be the Environmental Mitigation Trust Fund, established by Volkswagen and associated companies, as part of the settlement of the court case *In Re: Volkswagen "Clean Diesel" Marketing, Sales Practices, and Products Liability Litigation* (MDL No. 2672 CRB (JSC)). PA DEP is proposing to match the base funding dollar for dollar (\$275,479.00). PA DEP may, after the FY 2017 grant is awarded, request an amendment to commit additional voluntary match funds. PA DEP will use the DERA funding for reimbursement grants that will fund projects to reduce emissions from a wide array of diesel vehicles and equipment, including medium- and heavy-duty trucks, buses, construction equipment, airport ground support equipment, industrial vehicles, locomotives, marine engines and more. Eligible applicants will include: non-profit organizations, municipal authorities, school districts, political subdivisions, and other state agencies and businesses, including: corporations, partnerships, sole proprietorships, limited liability companies, business trusts or other legal business entities incorporated in the Commonwealth of Pennsylvania (Commonwealth) or registered to do business with the Commonwealth. The diesel vehicles or equipment being retrofitted, repowered, replaced, or converted must operate predominately in the Commonwealth to be an eligible project.

PA DEP intends to post all current and future awards on PA DEP Bureau of Air Quality's website, <http://www.dep.pa.gov/Business/Air/BAQ/Pages/default.aspx>, under the Grant Availability heading. There is currently one project funded by FY 2014-2016 funds listed on PA DEP's website. Once additional FY 2014-2016 sub-awards are finalized, PA DEP will post project descriptions on the website cited above. A separate webpage may be developed in the future, specifically for posting Pennsylvania State Clean Diesel Grant Program information, including award descriptions. If this occurs, a link to the new webpage will be provided on the existing website.



## SCOPE OF WORK

### STATE/TERRITORY GOALS AND PRIORITIES:

#### Air Quality:

Ground-level ozone and fine particulate matter (PM<sub>2.5</sub>) emissions are a persistent problem in certain areas of the Commonwealth of Pennsylvania. Diesel-powered vehicles and engines produce emissions of oxides of nitrogen (NO<sub>x</sub>) and volatile organic compounds (VOC) that combine in the atmosphere to form ozone. Repeated exposure to ozone pollution may cause a variety of adverse health effects for healthy people and those with existing conditions, including difficulty in breathing, chest pains, coughing, nausea, throat irritation, and congestion. Repeated exposure to ozone can also exacerbate asthma, bronchitis, heart disease, emphysema, and reduce lung capacity. Diesel emissions are a significant contributor to PM<sub>2.5</sub> concentrations in the atmosphere. Diesel engines produce PM<sub>2.5</sub> directly and create significant emissions of NO<sub>x</sub>, which is a precursor to the formation of PM. Emissions from diesel engines contribute to serious public health problems including asthma attacks, respiratory disease, decreased lung function, cardiovascular disease, heart attacks, cancers and even premature death. EPA has identified diesel PM<sub>2.5</sub> emissions as a likely human carcinogen.

Several areas of the Commonwealth are designated as nonattainment or maintenance areas for the 8-hour ozone National Ambient Air Quality Standards (NAAQS). Although EPA revoked the 1997 8-hour ozone NAAQS, effective April 6, 2015, the Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE (Bucks, Chester, Delaware, Montgomery and Philadelphia Counties) and the Pittsburgh-Beaver Valley, PA (Allegheny, Armstrong, Beaver, Butler, Fayette, Washington, Westmoreland Counties) areas were classified as moderate nonattainment at the time of revocation and are subject to the anti-backsliding requirements of the federal Clean Air Act. The following areas in the Commonwealth are “marginal” nonattainment areas for the 2008 8-hour ozone NAAQS: Allentown-Bethlehem-Easton (Carbon, Lehigh and Northampton Counties); Lancaster (Lancaster County); Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE (Bucks, Chester, Delaware, Montgomery and Philadelphia Counties); Pittsburgh-Beaver Valley (Allegheny, Armstrong, Beaver, Butler, Fayette, Washington, and Westmoreland Counties); and Reading (Berks County). In 2015, the EPA published a final rulemaking (80 FR 65292, October 26, 2015) that lowered the primary and secondary ozone NAAQS to 0.070 parts per million, while retaining their indicators, averaging times, and forms. PA DEP submitted initial designation recommendations for the 2015 ozone NAAQS to EPA on October 3, 2016. The recommendation included 4 nonattainment areas encompassing 14 counties. The areas included the 5-county Philadelphia Area, Lebanon County, Indiana County, and the 7-county Pittsburgh-Beaver Valley Area. Pennsylvania submitted revised recommendations to EPA on April 11, 2017 that recommended that the 7-county Pittsburgh-Beaver Valley area and Indiana County be considered to have attained the ozone standard. EPA expects to complete the designation process for the 2015 ozone NAAQS by October 1, 2018.

The Commonwealth also has several areas that are designated as nonattainment or maintenance areas for the 1997, 2006 or 2012 PM<sub>2.5</sub> NAAQS. A “(p)” after a county means partial and indicates that only part of that county is designated as indicated. The following areas in the Commonwealth are designated as maintenance areas for the 1997 PM<sub>2.5</sub> NAAQS: Harrisburg-

Lebanon-Carlisle (Cumberland, Dauphin and Lebanon Counties); Johnstown (Cambria and Indiana (p) Counties); Lancaster (Lancaster County); Philadelphia-Wilmington PA-NJ-DE (Bucks, Chester, Delaware, Montgomery and Philadelphia Counties); Pittsburgh-Beaver Valley (Allegheny (p-remainder), Armstrong (p), Beaver, Butler, Greene (p), Lawrence (p), Washington and Westmoreland Counties); Reading (Berks County); and York (York County). The following areas in the Commonwealth are designated as maintenance areas for the 2006 PM<sub>2.5</sub> NAAQS: Allentown (Lehigh and Northampton Counties); Harrisburg-Lebanon-Carlisle-York (Cumberland, Dauphin, Lebanon and York Counties); Johnstown (Cambria and Indiana (p) Counties); Lancaster (Lancaster County); Philadelphia-Wilmington PA-NJ-DE (Bucks, Chester, Delaware, Montgomery and Philadelphia Counties); and Pittsburgh-Beaver Valley (Allegheny (p-remainder), Armstrong (p), Beaver, Butler, Greene (p), Lawrence (p), Washington and Westmoreland Counties). The Liberty-Clairton (Allegheny (p) County) is currently designated as moderate nonattainment for the 1997 and 2006 PM<sub>2.5</sub> NAAQS. The following areas of the Commonwealth are designated as moderate nonattainment for the 2012 annual PM<sub>2.5</sub> NAAQS: Allegheny, Delaware and Lebanon Counties.

These nonattainment and maintenance areas include many counties in high population urban areas, thus compounding the effects of exposure to diesel emissions. The Commonwealth also has nonattainment areas for other NAAQS (i.e., 1-hour SO<sub>2</sub> NAAQS) but the ozone and PM<sub>2.5</sub> nonattainment and maintenance areas are “priority” locations for the PA State Clean Diesel Grant Program. While PA DEP does not limit applications to nonattainment areas, projects in nonattainment areas receive additional points in the application scoring process, thus providing an incentive to perform projects in nonattainment areas. Projects funded by this grant will improve air quality in the Commonwealth, as well as downwind areas in the Ozone Transport Region (OTR). States in the OTR are required to install certain controls to reduce ozone precursor emissions, even if some areas where the controls are required meet the ozone standards. This requirement is a result of the difficulty that nonattainment areas in the OTR have in meeting and maintaining the ozone NAAQS. Voluntary emission reduction efforts, such as this one, are an important way to reduce emissions so that states in the OTR can meet their clean air goals.

A study<sup>1</sup> of emissions in the Northeast United States shows that mobile and nonroad sources, including commercial marine, rail, and aircraft ground support equipment, will contribute approximately 51 percent of NO<sub>x</sub> emissions, 9 percent of PM<sub>2.5</sub>, and 34 percent of VOC emissions in the Northeast region in 2018, excluding emissions from fires and biogenic sources. Emission projections for future years indicate that emissions of ozone and PM<sub>2.5</sub> precursors from mobile and nonroad sources will continue to be a significant contributor to regional emissions - making it safe to say that states will need to continue to further reduce emissions from these sources.

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<sup>1</sup> Technical Support Document Emission Inventory Development For 2011, 2018 And 2028 for the Northeastern U.S. Alpha2 Version; Mid-Atlantic Regional Air Management Association, Inc. (MARAMA); November 23, 2015; and associated data files.

## **Diesel Fleet and Diesel Emissions:**

Pennsylvania, as one of the most populous states in the country, has one of the largest vehicle populations, including a large population of diesel vehicles and equipment. Pennsylvania also contains several areas with high population densities where diesel vehicles congregate. Pennsylvania is a major freight corridor, for both rail and trucking, for the Northeast United States. Pennsylvania contains many interstate highways that provide quick access to major north-south and east-west routes and the economically significant Northeast United States for all truck drivers traveling in the Commonwealth. There are approximately 180,762 heavy-duty diesel vehicles registered in Pennsylvania, but the number actually operating in or traveling through Pennsylvania, is likely many times greater than the number of registered vehicles. Pennsylvania also contains many warehouse centers and intermodal facilities, several international airports, three ports used by commercial marine vessels, numerous railroads, and is a major destination for freight transport to and from these facilities. Many of these facilities also utilize diesel nonroad vehicles and engines. The diesel population of large nonroad vehicles and engines in Pennsylvania is approximately 159,270. The actual number is likely higher in Pennsylvania due to increased oil/gas drilling activities and forestry activities associated with the recent drilling boom in Pennsylvania; this increased activity is not reflected in the national trends of decreasing activity in these sectors. In addition to freight, Pennsylvania also has a significant commuter rail system, including both systems run by transit agencies and Amtrak lines crossing the commonwealth. In FY 2014-2015, Amtrak's Keystone Corridor Service carried 1,360,737 passengers<sup>2</sup>. According to the Pennsylvania Department of Transportation's (PennDOT) Pennsylvania Public Transportation Performance Report – Fiscal Year 2014-2015, Pennsylvania has 38 urban and rural transit systems<sup>3</sup>, as well as several community transportation organizations and intercity bus lines. These include the 6th and 26th largest transit systems in the United States<sup>4</sup>. Combined these transit systems provided an estimated 429,739,509 passenger trips in FY 2014-2015. PennDOT records indicate that 8,401 transit buses and 18,582 school buses were registered in the Commonwealth in 2014.<sup>5</sup>

New standards for diesel vehicles and equipment promulgated by EPA will ensure that new medium-duty and heavy-duty diesel engines will be less polluting. Much of this equipment, however, can operate 25 to 30 years before replacement is required, so it may be many years before existing equipment is replaced with new, cleaner equipment due to normal fleet turnover. A large population of older diesel engines unaffected by the new standards will continue to operate in the Commonwealth into the future. Many strategies and programs exist to make these engines operate more cleanly. Replacing, retrofitting, repowering, or converting older diesel vehicles and engines with alternative fuels or new diesel versions are cost-effective strategies to reduce emissions of PM<sub>2.5</sub> and precursor pollutants for the formation of PM<sub>2.5</sub> and ozone,

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<sup>2</sup> Passenger Rail Program, Pennsylvania Department of Transportation: *Pennsylvania Public Transportation Annual Performance Report FY 2014-15*, April 30, 2016.

<sup>3</sup> Pennsylvania Department of Transportation: *Pennsylvania Public Transportation Annual Performance Report FY 2014-15*, April 30, 2016.

Fiscal Year 2014-15

<sup>4</sup> Table 3: 50 Largest Transit Agencies Ranked by Unlinked Passenger Trips and Passenger Miles, Report Year 2013, American Public Transportation Association: *2015 Public Transportation Fact Book*, Washington, DC, November, 2015.

<sup>5</sup> Pennsylvania Department of Transportation vehicle registration data, CY2014

including NO<sub>x</sub> and VOC, by as much as 90 percent or more. According to EPA's 2014 National Emission Inventory, diesel emissions from diesel-powered on-road and non-road mobile sources, marine, rail, and aircraft in Pennsylvania accounted for approximately 145,395 tons per year (TPY) of NO<sub>x</sub>, 13,874 TPY of VOC, 6,742 TPY of PM<sub>2.5</sub>, and 8,145 TPY of PM<sub>10</sub>. In order to achieve the greatest emission reductions possible, applications receive higher scores for higher emission reductions.

## **VEHICLES AND TECHNOLOGIES:**

Eligible vehicles and equipment funded under this grant include diesel-powered buses (school, transit, coach); diesel-powered medium-duty or heavy-duty trucks including drayage trucks; diesel-powered nonroad engines, equipment or vehicles used in construction, handling of cargo (including at a port or airport), agriculture, mining or energy production (including stationary generators and pumps); locomotives; and marine engines. Eligible applicants include businesses (corporations, partnerships, sole proprietorships, limited liability companies, business trusts or other legal business entities incorporated in or registered with the PA Department of State Bureau of Corporations and Charitable Organizations to do business in the Commonwealth), incorporated nonprofits (an organization as described in Section 501(c)(3) of the Federal Internal Revenue Code of 1954, as amended that must be incorporated under PA law or registered with the PA Department of State Bureau of Corporations and Charitable Organizations to do business in the Commonwealth), school districts, municipal governments and municipal authorities, and other state agencies. Eligible project types include exhaust controls, engine upgrades, alternative fuel conversions, verified idle reduction technologies, certified engine repowers, verified aerodynamic technologies and verified low rolling resistance tires, and vehicle and equipment replacements. PA DEP is a SmartWay Affiliate and will encourage the use of SmartWay verified technologies for applicable projects. All eligible project types will be subject to the restrictions and cost-share requirements identified in EPA's FY 2017 State Clean Diesel Grant Program Information Guide.

## **ROLES AND RESPONSIBILITIES:**

For FY 2017, PA DEP will continue to administer the PA State Clean Diesel Grant Program, which is a competitive grant/reimbursement program funded through State Clean Diesel Grant funds allocated by the EPA. The primary goal of the PA State Clean Diesel Grant Program is to improve air quality by decreasing emissions from diesel-powered sources, through funding diesel emission reduction projects. The PA State Clean Diesel Grant begins with a competitive application process, in which eligible and complete applications are scored using criteria substantially similar to the scoring criteria used by EPA in the National Clean Diesel Funding Assistance Program Request for Proposals (National RFP). The highest scoring application(s) is recommended for funding. Upon approval of the Secretary of the Department, funding is offered to the highest scoring successful applicant(s). Grant agreements are executed with those applicants that accept funding (subgrantees). Grant funding is offered as a reimbursement; subgrantees must show that funds have been expended for eligible project costs and the subgrantees are reimbursed after approval of their submitted reimbursement requests. Subgrantees are also responsible for complying with all reporting requirements, including submitting vehicle usage data and calculating emission reductions using EPA's Diesel Emission

Quantifier (DEQ), or a different DEP approved methodology for quantifying emission reductions, as long as supporting documentation and reproducible calculations are provided. The PA State Clean Diesel Grant Program has broad eligibility, in order to make funding available for as many eligible applicants and eligible projects as possible. PA DEP is not committing any additional leveraged resources, such as in-kind contributions, under this award.

**TIMELINE AND MILESTONES:**

PA DEP will announce a competitive grant program that will allow eligible applicants to apply for funding to eligible projects, including replacements, retrofits, re-powers and alternative fuel conversions. Complete applications will be reviewed and scored using criteria substantially similar to the EPA’s National RFP. The applicants with the highest score, which will be based on the number of vehicles affected, emissions reduced, financial match, the NAAQS attainment status of the area where the vehicle operate, and other criteria, will be awarded a grant. PA DEP expects to have applications evaluated and scored within a month of the close of the application period, and will award the grants within two to three months of the close of the application period. As stated above in the Roles and Responsibilities section, grantees are eligible to be reimbursed as project work is completed and project costs are paid by the grantee.

**Proposed Timeline and Milestones**

	<b>Q3 2017</b>	<b>Q4 2017</b>	<b>Q1 2018</b>	<b>Q2 2018</b>	<b>Q3 2018</b>	<b>Q4 2018</b>
	July- Sept	Oct- Dec	Jan- Mar	Apr- June	July- Sept	Oct- Dec
Receive grant from EPA						
<b>Task 1: Public Notification</b>						
A. Give a 45-day notice to Policy Office						
B. Publish in <i>Pa. Bulletin</i>						
C. Present webinar for interested parties						
D. Receive applications						
<b>Task 2: Choose grantees</b>						
A. Evaluate applications						
B. Make grantee selection						
C. Review by management (~60 days)						
D. Notify grantees and issue grants						
<b>Task 3: Purchase Equipment</b>						
A. Grantees purchase equipment						
B. Grantee submits invoices for review and approval						
C. Department reimburses grantee for purchase or taking delivery of invoiced equipment						
D. Close grants						
<b>Task 4: Reporting</b>						

A. Department evaluates project and emission reductions						
B. Provide PA DEP final report to EPA						

**DERA PROGRAMMATIC PRIORITIES:**

The principal objective of the assistance to be awarded under this program is to achieve significant reductions in diesel emissions in terms of tons of pollution produced and reductions in diesel emissions exposure from vehicles, engines and equipment operating in areas that receive a disproportionate quantity of air pollution from diesel fleets and in areas designated as priority locations, which include areas that meet any of the following criteria: areas in nonattainment or maintenance of NAAQS for ozone and/or PM<sub>2.5</sub>; areas with toxic air pollutant concerns as identified from the National Air Toxics Assessment data; areas designated as Federal Class I areas; and/or areas accepted to participate in EPA’s Ozone Advance or PM Advance Programs. This programmatic priority is achieved by prioritizing projects in priority locations identified by EPA and in areas that receive a disproportionate quantity of air pollution from diesel fleets. PA DEP supports these programmatic priorities by awarding additional points during the scoring process to priority locations, which include Allegheny, Armstrong, Beaver, Berks, Bucks, Butler, Cambria, Carbon, Centre, Chester, Cumberland, Dauphin, Delaware, Fayette, Franklin, Greene, Huntingdon, Indiana, Lancaster, Lawrence, Lebanon, Lehigh, Luzerne, Lycoming, Mifflin, Monroe, Montgomery, Northampton, Philadelphia, Washington, Westmoreland, and York Counties in FY 2017. PA DEP also awards additional points during the scoring process to projects located in areas with high levels of diesel emissions, including truck stops, ports, rail yards, terminals, major construction sites, bus depots or yards, and distribution centers.

**EPA’S STRATEGIC PLAN LINKAGE AND ANTICIPATED OUTCOMES/OUTPUTS:**

The PA State Clean Diesel Grant Program supports EPA’s 2014-2018 Strategic Plan Goal 1, ‘Addressing Climate Change and Improving Air Quality,’ Objective 1.2, ‘Improve Air Quality,’ which states, “achieve and maintain health-and welfare-based air pollution standards and reduce risk from toxic air pollutants and indoor air contaminants.” The PA State Clean Diesel Grant Program will fund projects that reduce emissions from diesel fleets, thereby reducing local and regional air pollution of criteria pollutants, air toxics, and greenhouse gases, by replacing or upgrading older diesel equipment and engines with newer, cleaner equipment and engines. PA DEP will ensure that Pennsylvania benefits from the funded projects by requiring that the vehicles or equipment being retrofitted, repowered, or replaced to operate predominately in Pennsylvania. Additionally, even though it is not the goal of the PA State Clean Diesel Grant Program, reducing diesel emissions in high population areas and high pollution areas may lead to some improvement in indoor air quality, due to reduced exposure to diesel exhaust emissions, which can be transported indoors without dilution in high density population and high pollution areas.

**Outputs:**

PA DEP anticipates several outputs from the projects funded by this grant, which

may include but are not limited to the following: number of retrofitted engines/vehicles/equipment; hours of operation and idling time; fleet details of both old and new vehicles and engines, including make, model, and model year; cost-effectiveness of project; and providing support to clean diesel coalitions by sharing information and working with interested fleets. In order to acquire this information, PA DEP will require sub-award recipients to provide information that is required to complete EPA's quarterly reporting documents. PA DEP will collate information received from the grant recipients to provide a summary of outputs to EPA for all projects funded by this program.

To quantify emission reductions, PA DEP will require the use of the EPA's Diesel Emission Quantifier (DEQ) which can be found here: <https://www.epa.gov/cleandiesel/diesel-emissions-quantifier-deq> or EPA's Motor Vehicle Emissions Simulator (MOVES), found at: <http://www.epa.gov/otaq/models/moves/index.htm>. Health benefits can also be derived from the DEQ. If the project is of a type that cannot be quantified by the DEQ or MOVES, PA DEP will allow applicants to propose a different methodology for quantifying emission reductions, if supporting documentation and reproducible calculations are provided to PA DEP. PA DEP may also utilize PAQONE, a MOVES-based mobile source model used for off-network and project level analysis, to analyze emission reduction estimates.

PA DEP will post the number of sub-awards, including detailed project descriptions, in order to notify the public of the funded projects and to promote the use of the funded technologies. PA DEP will also submit all required quarterly progress reports and a final report to EPA, at the completion of all funded projects.

### **Outcomes:**

Expected outcomes from projects funded under this program may include, but are not limited to, the following:

- Short-term outcomes: increased number of retrofitted, repowered, or replaced diesel vehicles and equipment in Pennsylvania; immediate reduction in exposure to diesel emissions for populations near the updated diesel vehicles and equipment; decrease in diesel fuel use; increased business for emission reduction or idle reduction equipment manufacturing and sales companies; annual pounds or tons of PM<sub>2.5</sub>, NO<sub>x</sub>, greenhouse gases (GHG), VOC/HC, and CO reduced.
- Medium-term outcomes: documented annual emission reductions and fuel savings; increased awareness of emission reduction technology and methods via press releases, project details posted on PA DEP's website, listservs, and word of mouth by fleet owners and operators; increased interest in grant funding for similar projects; and educational outreach by PA DEP and/or fleet owners and operators about emission and idle reduction technologies.
- Long-term outcomes: health benefits achieved (health benefits may include reductions in numbers of illnesses, health care costs, or missed work/school absences); adoption of a corporate/business idle-reduction policy or changes in driver behavior regarding idling practices; documented improved ambient air quality; an increased understanding of the environmental or economic effectiveness of the implemented technology; and widespread adoption of the implemented technologies.

## **SUSTAINABILITY OF THE PROGRAM:**

PA DEP includes requirements in all grant agreements for sub-awards funded by this program to keep and maintain diesel emission reduction technology for a specific amount of time. Some equipment funded by this program can easily be removed from a vehicle or piece of equipment. Requiring that the retrofit technology, re-powered engine, or replaced vehicle remains on the vehicle and be maintained for a specified amount of time will ensure that anticipated emission reductions are realized. PA DEP usually requires that the retrofit equipment remains used on the vehicle for at least four years and re-powered and replaced equipment for longer periods.

PA DEP staff will work with local air agencies, media outlets, and local non-governmental organizations to maintain awareness about this grant program and to inform the public of the projects currently being funded under this program. In addition to web postings and press releases, PA DEP publishes notice of available grant funding in the *Pennsylvania Bulletin* to keep the public informed of grant opportunities. PA DEP will also provide updates when projects are completed and provide a breakdown of the technologies funded and the final costs of the projects. Information about grant awards will be posted in PA DEP's Bureau of Air Quality website under the Grant Availability heading here:

<http://www.dep.pa.gov/Business/Air/BAQ/Pages/default.aspx>.



## BUDGET NARRATIVE

### Itemized Project Budget

FY 2017			
Budget Category	EPA Allocation	Voluntary Match (if applicable)	Mandatory Cost-Share (if applicable)
1. Personnel	\$0.00	\$0.00	\$0.00
2. Fringe Benefits	\$0.00	\$0.00	\$0.00
3. Travel	\$0.00	\$0.00	\$0.00
4. Supplies	\$0.00	\$0.00	\$0.00
5. Equipment	\$0.00	\$0.00	\$0.00
6. Contractual	\$0.00	\$0.00	\$0.00
7. Program Income	\$0.00	\$0.00	\$0.00
8. Other	\$413,218.00	\$275,479.00	\$0.00
<b>9. Total Direct Charges</b>	\$413,218.00	\$275,479.00	\$0.00
10. Indirect Charges	\$0.00	\$0.00	\$0.00
<b>Grand Total</b>	\$413,218.00	\$275,479.00	\$0.00

### Explanation of Budget Framework

#### Personnel

- **Personnel** –  
PA DEP is not requesting funding for Personnel under the FY 2017 DERA funding.
  
- **Fringe Benefits** –  
PA DEP is not requesting funding for Fringe Benefits under the FY 2017 DERA funding.
  
- **Travel** –  
PA DEP is not requesting funding for Travel under the FY 2017 DERA funding.
  
- **Equipment** –  
PA DEP is not requesting funding for Equipment under the FY 2017 DERA funding.

- **Supplies –**  
PA DEP is not requesting funding for Supplies under the FY 2017 DERA funding.
- **Contractual –**  
PA DEP is not requesting funding for Contractual under the FY 2017 DERA funding.
- **Other –**  
All funding received by PA DEP under the FY 2017 DERA funding will be distributed as sub-grants or sub-awards, and thus, falls under the ‘Other’ category for this narrative.

	<b>FY 2017</b>	
<b>Category: Other</b>	<b>EPA</b>	<b>State or Territory Match (if applicable)</b>
Sub-award: Multiple recipients for diesel emission reduction projects in Pennsylvania	\$413,218.00	\$275,479.00

- **Indirect Charges –**  
PA DEP is not requesting funding for Indirect Charges under the FY 2017 DERA funding.

### **Administrative Costs Expense Cap**

States and territories must demonstrate that no more than 15 percent 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). PA DEP is not proposing to use any of the FY 2017 funding for administrative costs, and, therefore, meets this requirement.

### **Matching Funds and Cost-Share Funds**

PA DEP intends to provide voluntary match funds for FY 2017. The source of these funds will be the Environmental Mitigation Trust Fund, established by Volkswagen and associated companies, as part of the settlement of the court case *In Re: Volkswagen “Clean Diesel” Marketing, Sales Practices, and Products Liability Litigation* (MDL No. 2672 CRB (JSC)). PA DEP is proposing to match the base funding dollar for dollar (\$275,479.00), thus qualifying PA DEP for bonus funding from EPA (\$137,739.00). PA DEP may, after the FY 2017 grant is awarded, request an amendment in order to commit additional voluntary match funds. PA DEP is not subject to Mandatory Cost-Share requirements, as all funds are expected to be awarded as sub-grants. The sub-grantees will, however, be subject to the DERA funding limits and minimum mandatory cost-share requirements identified in EPA’s FY 2017 State Clean Diesel Grant Program Information Guide.

**FISCAL YEAR 2018  
STATE CLEAN DIESEL GRANT PROGRAM  
WORK PLAN AND BUDGET NARRATIVE**

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**SUMMARY PAGE**

**Project Title:** FY 2018 Pennsylvania State Clean Diesel Grant Program

**Project Manager and Contact Information**

**Organization Name:** Pennsylvania Department of Environmental Protection (PA DEP or Department) Bureau of Air Quality

**Project Manager:** Samantha Harmon

**Mailing Address:** P.O. Box 8468, Harrisburg, PA 17105-8468

**Phone:** 717.705.7686

**Fax:** 717.772.2303

**Email:** saharmon@pa.gov

**Project Budget Overview:**

	<b>FY 2017*</b>	<b>FY 2018</b>
EPA Base Allocation	\$275,479.00	\$279,350.00
State or Territory Matching Funds (if applicable)	\$275,479.00	\$2,154,310.00
EPA Match Incentive (if applicable)	\$137,739.00	\$139,675.00
Mandatory Cost-Share	\$0.00	\$0.00
<b>TOTAL Project</b>	<b>\$688,697.00</b>	<b>\$2,573,335.00</b>

\*FY 2017 budget is only for states and territories with open FY 2017 State DERA grants

**Project Period**

October 1, 2018 – September 30, 2019

**Summary Statement**

PA DEP requests \$4189,025.00 (base and bonus funding) for fiscal year (FY) 2018 Diesel Emission Reduction Act funding. PA DEP intends to provide voluntary match funds for FY 2018. The source of these funds will be the Environmental Mitigation Trust Fund (Mitigation Trust Fund), established in the Environmental Mitigation Trust Agreements for State Beneficiaries (State Trust Agreement) by Volkswagen and associated companies, as part of the settlement of the court case *In Re: Volkswagen "Clean Diesel" Marketing, Sales Practices, and Products Liability Litigation* (MDL No. 2672 CRB (JSC)). PA DEP is proposing to overmatch the base funding with Mitigation Trust Funds (\$2,154,310.00). PA DEP will use the DERA funding for reimbursement grants that will fund projects to reduce emissions from a wide array

of diesel vehicles and equipment, including medium- and heavy-duty trucks, buses, construction equipment, airport ground support equipment, industrial vehicles, locomotives, marine engines and more. PA DEP will likely focus on project types that are not eligible for funding under the 10 eligible mitigation actions identified in the State Trust Agreement. Eligible applicants will include: non-profit organizations, municipal authorities, school districts, political subdivisions, and other state agencies and businesses, including: corporations, partnerships, sole proprietorships, limited liability companies, business trusts or other legal business entities incorporated in the Commonwealth of Pennsylvania (Commonwealth) or registered to do business with the Commonwealth. The diesel vehicles or equipment being retrofitted, repowered, replaced, or converted must operate predominately in the Commonwealth to be an eligible project.

PA DEP intends to post all current and future awards on PA DEP Bureau of Air Quality's website, <http://www.dep.pa.gov/Business/Air/BAQ/Pages/default.aspx>, under the Grant Availability heading. Currently, all projects funded by FY 2014-2016 funds are listed on PA DEP's website. Once FY 2017 sub-awards are finalized, PA DEP will post project descriptions on the website cited above. A separate webpage may be developed in the future, specifically for posting Pennsylvania State Clean Diesel Grant Program information, including award descriptions. If this occurs, a link to the new webpage will be provided on the existing website.

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## **SCOPE OF WORK**

### **STATE/TERRITORY GOALS AND PRIORITIES:**

#### **Air Quality:**

Ground-level ozone and fine particulate matter (PM<sub>2.5</sub>) emissions are a persistent problem in certain areas of the Commonwealth of Pennsylvania. Diesel-powered vehicles and engines produce emissions of oxides of nitrogen (NO<sub>x</sub>) and volatile organic compounds (VOC) that combine in the atmosphere to form ozone. Repeated exposure to ozone pollution may cause a variety of adverse health effects for healthy people and those with existing conditions, including difficulty in breathing, chest pains, coughing, nausea, throat irritation, and congestion. Repeated exposure to ozone can also exacerbate asthma, bronchitis, heart disease, emphysema, and reduce lung capacity. Diesel emissions are a significant contributor to PM<sub>2.5</sub> concentrations in the atmosphere. Diesel engines produce PM<sub>2.5</sub> directly and create significant emissions of NO<sub>x</sub>, which is a precursor to the formation of PM. Emissions from diesel engines contribute to serious public health problems including asthma attacks, respiratory disease, decreased lung function, cardiovascular disease, heart attacks, cancers and even premature death. EPA has identified diesel PM<sub>2.5</sub> emissions as a likely human carcinogen.

Several areas of the Commonwealth are designated as nonattainment or maintenance areas for the 8-hour ozone National Ambient Air Quality Standards (NAAQS). Although EPA revoked the 1997 8-hour ozone NAAQS, effective April 6, 2015, the Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE (Bucks, Chester, Delaware, Montgomery and Philadelphia Counties) and the Pittsburgh-Beaver Valley, PA (Allegheny, Armstrong, Beaver, Butler, Fayette, Washington,

Westmoreland Counties) areas were classified as moderate nonattainment at the time of revocation and are subject to the anti-backsliding requirements of the federal Clean Air Act. As a result of a recent lawsuit, the revocation of the 1997 ozone NAAQS may be withdrawn and these areas would again be considered as nonattainment areas. The following areas in the Commonwealth are marginal nonattainment areas for the 2008 8-hour ozone NAAQS: Allentown-Bethlehem-Easton (Carbon, Lehigh and Northampton Counties); Lancaster (Lancaster County); Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE (Bucks, Chester, Delaware, Montgomery and Philadelphia Counties); Pittsburgh-Beaver Valley (Allegheny, Armstrong, Beaver, Butler, Fayette, Washington, and Westmoreland Counties); and Reading (Berks County). In 2015, the EPA published a final rulemaking (80 FR 65292, October 26, 2015) that lowered the primary and secondary ozone NAAQS to 0.070 parts per million, while retaining their indicators, averaging times, and forms. PA DEP submitted initial designation recommendations for the 2015 ozone NAAQS to EPA on October 3, 2016. The recommendation included 4 nonattainment areas encompassing 14 counties. The areas included the 5-county Philadelphia Area, Lebanon County, Indiana County, and the 7-county Pittsburgh-Beaver Valley Area. Pennsylvania submitted revised recommendations to EPA on April 11, 2017 that recommended that the 7-county Pittsburgh-Beaver Valley area and Indiana County be considered to have attained the ozone standard. EPA published final designations for the 2015 ozone NAAQS on June 4, 2018 (83 FR 25776). Designations are effective August 3, 2018. Only the 5 county Philadelphia-Wilmington-Atlantic City, PA-NJ-MD-DE (Bucks, Chester, Delaware, Montgomery and Philadelphia Counties) area is designated as marginal nonattainment. All other areas are classified as attainment/unclassifiable.

The Commonwealth also has several areas that are designated as nonattainment or maintenance areas for the PM<sub>2.5</sub> NAAQS. A “(p)” after a county means partial and indicates that only part of that county is designated as indicated. Although EPA revoked the 1997 PM<sub>2.5</sub> NAAQS, effective October 24, 2016, the Liberty-Clairton area was classified as moderate nonattainment at the time of revocation and is subject to the anti-backsliding requirements of the federal Clean Air Act. The following areas in the Commonwealth are designated as maintenance areas for the 2006 24-hour PM<sub>2.5</sub> NAAQS: Allentown (Lehigh and Northampton Counties); Harrisburg-Lebanon-Carlisle-York (Cumberland, Dauphin, Lebanon and York Counties); Johnstown (Cambria and Indiana (p) Counties); Lancaster (Lancaster County); Philadelphia-Wilmington PA-NJ-DE (Bucks, Chester, Delaware, Montgomery and Philadelphia Counties); and Pittsburgh-Beaver Valley (Allegheny (p), Armstrong (p), Beaver, Butler, Greene (p), Lawrence (p), Washington and Westmoreland Counties). The Liberty-Clairton (Allegheny (p) County) is currently designated as moderate nonattainment for the 1997 annual and 2006 24-hour PM<sub>2.5</sub> NAAQS. The following areas of the Commonwealth are designated as moderate nonattainment for the 2012 annual PM<sub>2.5</sub> NAAQS: Allegheny, Delaware and Lebanon Counties.

These nonattainment and maintenance areas include many counties in high population urban areas, thus compounding the effects of exposure to diesel emissions. The Commonwealth also has nonattainment areas for other NAAQS (i.e., 1-hour SO<sub>2</sub> NAAQS) but the ozone and PM<sub>2.5</sub> nonattainment and maintenance areas are “priority” locations for the PA State Clean Diesel Grant Program. While PA DEP does not limit applications to nonattainment areas, projects in nonattainment areas receive additional points in the application scoring process, thus providing an incentive to perform projects in nonattainment areas. Projects funded by this grant will

improve air quality in the Commonwealth, as well as downwind areas in the Ozone Transport Region (OTR). States in the OTR are required to install certain controls to reduce ozone precursor emissions, even if some areas where the controls are required meet the ozone standards. This requirement is a result of the difficulty that nonattainment areas in the OTR have in meeting and maintaining the ozone NAAQS. Voluntary emission reduction efforts, such as this one, are an important way to reduce emissions so that states in the OTR can meet their clean air goals.

A study<sup>1</sup> of emissions in the Northeast United States shows that mobile and nonroad sources, including commercial marine, rail, and aircraft ground support equipment, will contribute approximately 51 percent of NO<sub>x</sub> emissions, 9 percent of PM<sub>2.5</sub>, and 34 percent of VOC emissions in the Northeast region in 2018, excluding emissions from fires and biogenic sources. Emission projections for future years indicate that emissions of ozone and PM<sub>2.5</sub> precursors from mobile and nonroad sources will continue to be a significant contributor to regional emissions - making it safe to say that states will need to continue to further reduce emissions from these sources.

### **Diesel Fleet and Diesel Emissions:**

Pennsylvania, as one of the most populous states in the country, has one of the largest vehicle populations, including a large population of diesel vehicles and equipment. Pennsylvania also contains several areas with high population densities where diesel vehicles congregate. Pennsylvania is a major freight corridor, for both rail and trucking, for the Northeast United States. Pennsylvania contains many interstate highways that provide quick access to major north-south and east-west routes and the economically significant Northeast United States for all truck drivers traveling in the Commonwealth. There are approximately 210,000<sup>2</sup> heavy-duty diesel trucks registered in Pennsylvania, but the number actually operating in or traveling through Pennsylvania, is likely many times greater than the number of registered vehicles. Pennsylvania also contains many warehouse centers and intermodal facilities, several international airports, three ports used by commercial marine vessels, numerous railroads, and is a major destination for freight transport to and from these facilities. Many of these facilities also utilize diesel nonroad vehicles and engines. The diesel population of large nonroad vehicles and engines in Pennsylvania in 2017 was approximately 159,890<sup>3</sup>.

In addition to freight, Pennsylvania also has a significant commuter rail system, including both systems run by transit agencies and Amtrak lines crossing the commonwealth. In FY 2015-2016, Amtrak's Keystone Corridor Service carried 1,416,029 passengers<sup>4</sup>. Pennsylvania has 36 urban and rural transit systems<sup>5</sup>, as well as several community transportation organizations and

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<sup>1</sup> Technical Support Document Emission Inventory Development For 2011, 2018 And 2028 for the Northeastern U.S. Alpha2 Version; Mid-Atlantic Regional Air Management Association, Inc. (MARAMA); November 23, 2015; and associated data files.

<sup>2</sup> Pennsylvania Department of Transportation vehicle registration data, CY2017; trucks GVWR 9,000 lbs or greater.

<sup>3</sup> NONROAD2008 Model, Pennsylvania Population File, 2015 to 2025 growth extrapolated for 2017.

<sup>4</sup> Passenger Rail Program, Pennsylvania Department of Transportation: *Pennsylvania Public Transportation Annual Performance Report FY 2015-16*, April 30, 2017.

<sup>5</sup> Table of Contents, Pennsylvania Department of Transportation: *Pennsylvania Public Transportation Annual Performance Report FY 2015-16*, April 30, 2017.

intercity bus lines. These include the 6th and 27th largest in the United States<sup>6</sup>. Pennsylvania Department of Transportation (PennDOT) records indicate that 7,984 diesel transit buses and 19,031 diesel school buses were registered in the Commonwealth in 2017.<sup>7</sup>

New standards for diesel vehicles and equipment promulgated by EPA will ensure that new medium-duty and heavy-duty diesel engines will be less polluting. Much of this equipment, however, can operate 25 to 30 years before replacement is required, so it may be many years before existing equipment is replaced with new, cleaner equipment due to normal fleet turnover. A large population of older diesel engines unaffected by the new standards will continue to operate in the Commonwealth into the future. Many strategies and programs exist to make these engines operate more cleanly. Replacing, retrofitting, repowering, or converting older diesel vehicles and engines with alternative fuels or new diesel versions are cost-effective strategies to reduce emissions of PM<sub>2.5</sub> and precursor pollutants for the formation of PM<sub>2.5</sub> and ozone, including NO<sub>x</sub> and VOC, by as much as 90 percent or more. According to EPA's 2014 National Emission Inventory, diesel emissions from diesel-powered on-road and non-road mobile sources, marine, rail, and aircraft in Pennsylvania accounted for approximately 145,395 tons per year (TPY) of NO<sub>x</sub>, 13,874 TPY of VOC, 6,742 TPY of PM<sub>2.5</sub>, and 8,145 TPY of PM<sub>10</sub>. In order to achieve the greatest emission reductions possible, applications receive higher scores for higher emission reductions.

#### **VEHICLES AND TECHNOLOGIES:**

Eligible vehicles and equipment funded under this grant include diesel-powered buses (school, transit, coach); diesel-powered medium-duty or heavy-duty trucks including drayage trucks; diesel-powered nonroad engines, equipment or vehicles used in construction, handling of cargo (including at a port or airport), agriculture, mining or energy production (including stationary generators and pumps); locomotives; and marine engines. Eligible applicants include businesses (corporations, partnerships, sole proprietorships, limited liability companies, business trusts or other legal business entities incorporated in or registered with the PA Department of State Bureau of Corporations and Charitable Organizations to do business in the Commonwealth), incorporated nonprofits (an organization as described in Section 501(c)(3) of the Federal Internal Revenue Code of 1954, as amended that must be incorporated under PA law or registered with the PA Department of State Bureau of Corporations and Charitable Organizations to do business in the Commonwealth), school districts, municipal governments and municipal authorities, other state agencies, air quality and transportation organizations (with restrictions), and metropolitan or rural planning organizations. Eligible project types include exhaust controls, engine upgrades, verified idle reduction technologies, certified engine repowers, verified aerodynamic technologies and verified low rolling resistance tires, and vehicle and equipment replacements. PA DEP is a SmartWay Affiliate and will encourage the use of SmartWay verified technologies for applicable projects. All eligible project types will be subject to the restrictions and cost-share requirements identified in EPA's FY 2018 State Clean Diesel Grant Program Information Guide.

#### **ROLES AND RESPONSIBILITIES:**

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<sup>6</sup> American Public Transportation Association, 2017 Public Transportation Fact Book, March 2018, Table 2.

<sup>7</sup> Pennsylvania Department of Transportation vehicle registration data, CY2017.

For FY 2018, PA DEP will continue to administer the PA State Clean Diesel Grant Program, which is a competitive grant/reimbursement program funded through State Clean Diesel Grant funds allocated by the EPA. The primary goal of the PA State Clean Diesel Grant Program is to improve air quality by decreasing emissions from diesel-powered sources, through funding diesel emission reduction projects. The PA State Clean Diesel Grant begins with a competitive application process, in which eligible and complete applications are scored using criteria substantially similar to the scoring criteria used by EPA in the National Clean Diesel Funding Assistance Program Request for Proposals (National RFP). The highest scoring application(s) is recommended for funding. Upon approval of the Secretary of the Department, funding is offered to the highest scoring successful applicant(s). Grant agreements are executed with those applicants that accept funding (subgrantees). Grant funding is offered as a reimbursement; subgrantees must show that funds have been expended for eligible project costs and the subgrantees are reimbursed after approval of their submitted reimbursement requests. Once a reimbursement request is approved, DEP will draw down a percentage of the award from EPA and will request the remaining reimbursement funds from the Trustee of the Mitigation Trust Fund for direct payment to the subgrantee. The addition of the extra step of requesting reimbursement from the Trustee directly to the subgrantee may result in a longer time period before a subgrantee is fully reimbursed, compared to PA DEP's standard 6-8 week payment period. Subgrantees are also responsible for complying with all reporting requirements, including submitting vehicle usage data and calculating emission reductions using EPA's Diesel Emission Quantifier (DEQ), or a different DEP approved methodology for quantifying emission reductions, as long as supporting documentation and reproducible calculations are provided. The PA State Clean Diesel Grant Program has broad eligibility, in order to make funding available for as many eligible applicants and eligible projects as possible. PA DEP is committing significant voluntary match funding under this award.

**TIMELINE AND MILESTONES:**

PA DEP will announce a competitive grant program that will allow eligible applicants to apply for funding to eligible projects, including replacements, retrofits, and repowers. Complete applications will be reviewed and scored using criteria substantially similar to the EPA's National RFP. The applicants with the highest score, which will be based on the number of vehicles affected, emissions reduced, financial match, the NAAQS attainment status of the area where the vehicle operate, and other criteria, will be awarded a grant. PA DEP expects to have applications evaluated and scored within a month of the close of the application period, and will award the grants within two to three months of the close of the application period. As stated above in the Roles and Responsibilities section, grantees are eligible to be reimbursed as project work is completed and project costs are paid by the grantee.



**Proposed Timeline and Milestones**

	<b>Q3 2018</b>	<b>Q4 2018</b>	<b>Q1 2019</b>	<b>Q2 2019</b>	<b>Q3 2019</b>	<b>Q4 2019</b>
	July- Sept	Oct- Dec	Jan- Mar	Apr- June	July- Sept	Oct-Dec
Receive grant from EPA	X					
<b>Task 1: Public Notification</b>						
A. Give a 45-day notice to Policy Office		X				
B. Publish in <i>Pa. Bulletin</i>		X				
C. Present webinar for interested parties		X				
D. Receive applications		X				
<b>Task 2: Choose grantees</b>						
A. Evaluate applications			X			
B. Make grantee selection			X			
C. Review by management (~60 days)			X			
D. Notify grantees and issue grants			X	X		
<b>Task 3: Purchase Equipment</b>						
A. Grantees purchase equipment				X		
B. Grantee submits invoices for review and approval					X	
C. Department reimburses grantee for purchase or taking delivery of invoiced equipment					X	
D. Close grants					X	X
<b>Task 4: Reporting</b>						
A. Department evaluates project and emission reductions						X
B. Provide PA DEP final report to EPA						X

**DERA PROGRAMMATIC PRIORITIES:**

The principal objective of the assistance to be awarded under this program is to achieve significant reductions in diesel emissions in terms of tons of pollution produced and reductions in diesel emissions exposure from vehicles, engines and equipment operating in areas that receive a disproportionate quantity of air pollution from diesel fleets and in areas designated as priority locations, which include areas that meet any of the following criteria: areas in nonattainment or maintenance of NAAQS for ozone and/or PM<sub>2.5</sub>; areas with toxic air pollutant concerns as identified from the National Air Toxics Assessment data; areas designated as Federal Class I areas; and/or areas accepted to participate in EPA’s Ozone Advance or PM Advance Programs. This programmatic priority is achieved by prioritizing projects in priority locations identified by EPA and in areas that receive a disproportionate quantity of air pollution from diesel fleets. PA DEP supports these programmatic priorities by awarding additional points during the scoring process to priority locations, which include Allegheny, Armstrong, Beaver, Berks, Bucks, Butler, Cambria, Carbon, Centre, Chester, Columbia, Cumberland, Dauphin, Delaware, Fayette, Franklin, Greene, Huntingdon, Indiana, Lancaster, Lawrence, Lebanon, Lehigh, Luzerne, Lycoming, Mifflin, Monroe, Montgomery, Northampton, Philadelphia, Washington,

Westmoreland, and York Counties in FY 2018. PA DEP also awards additional points during the scoring process to projects located in areas with high levels of diesel emissions, including truck stops, ports, rail yards, terminals, major construction sites, bus depots or yards, and distribution centers.

**EPA’S STRATEGIC PLAN LINKAGE AND ANTICIPATED OUTCOMES/OUTPUTS:**

The PA State Clean Diesel Grant Program supports EPA’s 2018-2022 Strategic Plan Objective 1.2, ‘Improve Air Quality,’ which states, “work with states and tribes to accurately measure air quality and ensure that more Americans are living and working in areas that meet high air quality standards.” The PA State Clean Diesel Grant Program will fund projects that reduce emissions from diesel fleets, thereby reducing local and regional air pollution of criteria pollutants, air toxics, and greenhouse gases, by replacing or upgrading older diesel equipment and engines with newer, cleaner equipment and engines. These projects will contribute to nonattainment areas in Pennsylvania meeting high air quality standards. PA DEP will ensure that Pennsylvania benefits from the funded projects by requiring that the vehicles or equipment being retrofitted, repowered, or replaced to operate predominately in Pennsylvania. Additionally, even though it is not the goal of the PA State Clean Diesel Grant Program, reducing diesel emissions in high population areas and high pollution areas may lead to some improvement in indoor air quality, due to reduced exposure to diesel exhaust emissions, which can be transported indoors without dilution in high density population and high pollution areas.

**Outputs:**

PA DEP anticipates several outputs from the projects funded by this grant, which may include but are not limited to the following: number of retrofitted engines/vehicles/equipment; hours of operation and idling time; fleet details of both old and new vehicles and engines, including make, model, and model year; cost-effectiveness of project; and providing support to clean diesel coalitions by sharing information and working with interested fleets. In order to acquire this information, PA DEP will require sub-award recipients to provide information that is required to complete EPA’s quarterly reporting documents. PA DEP will collate information received from the grant recipients to provide a summary of outputs to EPA for all projects funded by this program.

To quantify emission reductions, PA DEP will require the use of the EPA’s Diesel Emission Quantifier (DEQ) which can be found here: <https://www.epa.gov/cleandiesel/diesel-emissions-quantifier-deq> or EPA’s Motor Vehicle Emissions Simulator (MOVES), found at: <http://www.epa.gov/otaq/models/moves/index.htm>. Health benefits can also be derived from the DEQ. If the project is of a type that cannot be quantified by the DEQ or MOVES, PA DEP will allow applicants to propose a different methodology for quantifying emission reductions, if supporting documentation and reproducible calculations are provided to PA DEP. PA DEP may also utilize PAQONE, a MOVES-based mobile source model used for off-network and project level analysis, to analyze emission reduction estimates.

PA DEP will post the number of sub-awards, including detailed project descriptions, in order to notify the public of the funded projects and to promote the use of the funded technologies. PA

DEP will also submit all required quarterly progress reports and a final report to EPA, at the completion of all funded projects.

### **Outcomes:**

Expected outcomes from projects funded under this program may include, but are not limited to, the following:

Short-term outcomes: increased number of retrofitted, repowered, or replaced diesel vehicles and equipment in Pennsylvania; immediate reduction in exposure to diesel emissions for populations near the updated diesel vehicles and equipment; decrease in diesel fuel use and an increase in the use of alternative fuels, including all-electric; increased business for emission reduction or idle reduction equipment manufacturing and sales companies; annual pounds or tons of PM<sub>2.5</sub>, NO<sub>x</sub>, greenhouse gases (GHG), VOC/HC, and CO reduced.

Medium-term outcomes: documented annual emission reductions and fuel savings; increased awareness of emission reduction technology and methods via press releases, project details posted on PA DEP's website, listservs, and word of mouth by fleet owners and operators; kickstart of transformations of individual fleets to operate using cleaner engines and fuels; increased interest in grant funding for similar projects; and educational outreach by PA DEP and/or fleet owners and operators about emission and idle reduction technologies.

Long-term outcomes: health benefits achieved (health benefits may include reductions in numbers of illnesses, health care costs, or missed work/school absences); adoption of a corporate/business idle-reduction policy or changes in driver behavior regarding idling practices; documented improved ambient air quality; an increased understanding of the environmental or economic effectiveness of the implemented technology; and widespread adoption of the implemented technologies resulting in a transformation of the vehicle fleet.

### **SUSTAINABILITY OF THE PROGRAM:**

PA DEP includes requirements in all grant agreements for sub-awards funded by this program to keep and maintain diesel emission reduction technology for a specific amount of time. Some equipment funded by this program can easily be removed from a vehicle or piece of equipment. Requiring that the retrofit technology, repowered engine, or replaced vehicle remains on the vehicle and be maintained for a specified amount of time will ensure that anticipated emission reductions are realized. PA DEP usually requires that the retrofit equipment remains used on the vehicle for at least four years and repowered and replaced equipment for longer periods.

PA DEP staff will work with local air agencies, media outlets, and local non-governmental organizations to maintain awareness about this grant program and to inform the public of the projects currently being funded under this program. In addition to web postings and press releases, PA DEP publishes notice of available grant funding in the *Pennsylvania Bulletin* to keep the public informed of grant opportunities. PA DEP will also provide updates when projects are completed and provide a breakdown of the technologies funded and the final costs of the projects. Information about grant awards will be posted in PA DEP's Bureau of Air Quality website under the Grant Availability heading here:

<http://www.dep.pa.gov/Business/Air/BAQ/Pages/default.aspx>. Information about the grant program is also posted on PA DEP’s new Driving PA Forward initiative website here: <http://www.depgis.state.pa.us/DrivingPAForward/>.

**BUDGET NARRATIVE**

This section of the work plan includes a detailed itemized budget proposal, using the table below. The expenses for each of the categories being performed within the grant/project period are justified below the table. PA DEP has indicated which costs will be paid by Pennsylvania’s allocation from EPA, including bonus match, and which costs will be paid by Pennsylvania’s voluntary matching funds. Costs related to personnel, fringe benefits, travel, equipment, supplies, contractual costs, other direct costs, indirect costs, and total costs are itemized. The budget detail portion of the work plan includes a detailed description of how PA DEP will obtain its voluntary cost-share and how the cost-share funding will be used.

**Itemized Project Budget**

Budget Category	FY 2017*			FY 2018			Total
	EPA Allocation	Voluntary Match (if applicable)	Mandatory Cost-Share (if applicable)	EPA Allocation	Voluntary Match (if applicable)	Mandatory Cost-Share (if applicable)	
1. Personnel	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2. Fringe Benefits	\$0	\$0	\$0	\$0	\$0	\$0	\$0
3. Travel	\$0	\$0	\$0	\$0	\$0	\$0	\$0
4. Supplies	\$0	\$0	\$0	\$0	\$0	\$0	\$0
5. Equipment	\$0	\$0	\$0	\$0	\$0	\$0	\$0
6. Contractual	\$0	\$0	\$0	\$0	\$0	\$0	\$0
7. Program Income	\$0	\$0	\$0	\$0	\$0	\$0	\$0
8. Other	\$413,218	\$275,479	\$0	\$419,025	\$2,154,310	\$0	\$3,262,032
<b>9. Total Direct Charges</b>	\$413,218	\$275,479	\$0	\$419,025	\$2,154,310	\$0	\$3,262,032
10. Indirect Charges	\$0	\$0	\$0	\$0	\$0	\$0	\$0
<b>Total</b>	\$413,218	\$275,479	\$0	\$419,025	\$2,154,310	\$0	\$3,262,032

\*FY 2017 budget is only for states and territories with open FY 2017 State DERA grants

**Explanation of Budget Framework**

- **Personnel -**  
PA DEP is not requesting funding for Personnel under the FY 2018 DERA funding.
- **Fringe Benefits –**  
PA DEP is not requesting funding for Fringe Benefits under the FY 2018 DERA funding.
- **Travel -**  
PA DEP is not requesting funding for Travel under the FY 2018 DERA funding.

- **Equipment -**  
PA DEP is not requesting funding for Equipment under the FY 2018 DERA funding.
- **Supplies -**  
PA DEP is not requesting funding for Supplies under the FY 2018 DERA funding.
- **Contractual -**  
PA DEP is not requesting funding for Contractual under the FY 2018 DERA funding.
- **Other -**  
All funding received by PA DEP from EPA under the FY 2018 DERA funding will be distributed as sub-grants or sub-awards, and thus, falls under the ‘Other’ category for this narrative.

	<b>FY 2018</b>	
<b>Category: Other</b>	<b>EPA</b>	<b>State or Territory Match (if applicable)</b>
Sub-award: Multiple recipients for diesel emission reduction projects in Pennsylvania	\$419,025.00	\$2,154,310.00

- **Indirect Charges –**  
PA DEP is not requesting funding for Indirect Charges under the FY 2018 DERA funding.

### **Administrative Costs Expense Cap**

States and territories must demonstrate that no more than 15 percent 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). PA DEP is not proposing to use any of the EPA FY 2018 funding for administrative costs. PA DEP may use some of PA DEP’s voluntary match funding (also limited to 15 percent of total project costs in the State Trust Agreement) to fund some administrative costs for PA DEP.

### **Matching Funds and Cost-Share Funds**

PA DEP intends to provide voluntary match funds for FY 2018. The source of these funds will be the Mitigation Trust Fund, established in the State Trust Agreement. PA DEP is proposing to overmatch the base funding with Mitigation Trust Funds (\$2,154,310.00). PA DEP is not subject to Mandatory Cost-Share requirements, as all funds are expected to be awarded as sub-grants. The sub-grantees will, however, be subject to the DERA funding limits and minimum mandatory cost-share requirements identified in EPA’s FY 2018 State Clean Diesel Grant Program Information Guide.

### **Funding Partnerships**

If a DERA grant recipient intends to fund target fleets that they do not own and operate, they have the option to (1) make a **subaward** or (2) provide **participant support costs** to a project partner. Both options can fund a project partner's equipment and installation costs, but only subawards can fund a project partner's direct and indirect costs such as personnel and travel. PA DEP will be funding all projects through subawards granted through a competitive grant process.