

APPENDIX D-4
Beneficiary Eligible Mitigation Action Certification

BENEFICIARY ELIGIBLE MITIGATION ACTION CERTIFICATION

Beneficiary State of Delaware

Lead Agency Authorized to Act on Behalf of the Beneficiary Department of Natural Resources and Environmental Control
(Any authorized person with delegation of such authority to direct the Trustee delivered to the Trustee pursuant to a Delegation of Authority and Certificate of Incumbency)

Action Title:	School Bus Replacements
Beneficiary's Project ID:	Phase 1-A
Funding Request No.	<i>(sequential)</i> 1
Request Type: (select one or more)	<input type="checkbox"/> Reimbursement <input checked="" type="checkbox"/> Advance <input type="checkbox"/> Other (specify): _____
Payment to be made to: (select one or more)	<input checked="" type="checkbox"/> Beneficiary <input type="checkbox"/> Other (specify): _____
Funding Request & Direction (Attachment A)	<input checked="" type="checkbox"/> Attached to this Certification <input type="checkbox"/> To be Provided Separately

SUMMARY

Eligible Mitigation Action	<input checked="" type="checkbox"/> Appendix D-2 item (specify): <u>School Buses Phase 1 year 1</u>
Action Type	<input checked="" type="checkbox"/> Item 10 - DERA Option (5.2.12) (specify and attach DERA Proposal):
Detailed Description of Mitigation Action Item Including Community and Air Quality Benefits (5.2.2): Please see Summary Attachment	
Estimate of Anticipated NOx Reductions (5.2.3): <small>It is estimated that the State of Delaware will reduce 8.204 short tons NOx reductions for the FY2018 DERA grant replacements and 8.809 shorts tons of NOx for the Appendix D-2 .school bus replacements.</small>	
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 Delaware Department of Natural Resources and Environmental Control	
Describe how the Beneficiary will make documentation publicly available (5.2.7.2). Please see Summary Attachment	
Describe any cost share requirement to be placed on each NOx source proposed to be mitigated (5.2.8). Federal DERA Funds - \$396,410.25 (8%) Department of Education - \$3,779,099.55 (73%) Total Budget Funded by the Trust - \$995,227.20 (19%)	
Describe how the Beneficiary complied with subparagraph 4.2.8, related to notice to U.S. Government Agencies (5.2.9). Please see Summary Attachment	

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

Please see Summary Attachment

ATTACHMENTS
(CHECK BOX IF ATTACHED)

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

CERTIFICATIONS

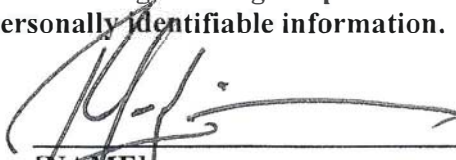
By submitting this application, the Lead Agency makes the following certifications:

1. This application is submitted on behalf of Beneficiary Delaware, 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:

5/17/2019



[NAME] Robert J. Zimmerman
[TITLE] Chief Operating Officer
Department of Natural Resources and Environmental Control

[LEAD AGENCY]

for
State of Delaware

[BENEFICIARY]

SUMMARY ATTACHMENT

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

The primary goal of the State of Delaware's Volkswagen Environmental Mitigation plan is to improve and protect ambient air quality by implementing eligible mitigation projects that will achieve significant and sustained reductions in NOx emission exposures in areas with poor air quality; areas with historical air quality issues; and areas that receive a disproportionate quantity of air pollution from diesel. The Delaware Department of Natural Resources and Environmental Control (DNREC) is partnering with the Delaware Department of Education (DoEd) to scrap and replace 57 older diesel school buses. A total of 31 school buses will be replaced through the FY2018 Clean Diesel Program and an additional 26 school buses will be replaced as an Appendix-D-2 item under the Volkswagen Environmental Mitigation Plan.

The two agencies are committed to providing schools with reliable, innovative, and efficient green transportation solutions. Air pollution from diesel vehicles has health implications for everyone, but children are more susceptible because they breathe more air per pound of body weight than do adults. Children riding older diesel school buses are exposed to significant levels of fine particulate matter and other harmful pollutants. Although school bus engines burn cleaner than those of a decade ago, Delaware is motivated by saving fuel costs and reducing school children's exposure to cancer-causing and smog forming pollution through the replacement of old diesel school buses in and around the state. The replacements will be fueled by clean diesel or propane. Phase 1 under the Volkswagen Environmental Mitigation plan is a multi-year program to replace state owned school buses.

The FY2018 DERA workplan and the Delaware's Volkswagen Environmental Mitigation Plan are attached to further support this funding request.

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

The Delaware Department of Natural Resources and Environmental Control (DNREC) is partnering with the Delaware Department of Education (DoEd) to scrap and replace 57 older diesel school buses. A total of 31 school buses will be replaced through the FY2018 Clean Diesel Emission Reduction Act grant (DERA) Program with Volkswagen Mitigation Funds as the cost share and an additional 26 school buses will be replaced as an Appendix-D-2 item under the Volkswagen Environmental Mitigation Plan (Phase 1 Year 1). These school buses will serve 7 school districts around the state. The replacement school buses will be fueled by propane or clean diesel under the following replacement schedule:

Program	Propane School Buses	Diesel School Buses	Total
FY2018 DERA Grant	18	13	31
Appendix D-2 Eligible Mitigation Action Replacement (Phase 1 Year 1)	17	9	26
Total	35	26	57

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

Air pollution from diesel vehicles has health implications for everyone, but children are more susceptible because they breathe more air per pound of body weight than do adults. Children riding older diesel school buses are exposed to significant levels of fine particulate matter and other harmful pollutants. Although school bus engines burn cleaner than those of a decade ago, Delaware is motivated by saving fuel costs and reducing school children's exposure to cancer-causing and smog forming pollution through the replacement of old diesel school buses.

The lifetime emission reductions are (in short tons) for the 31 school bus replacements under the FY2018 Diesel Emission Reduction grant:

NO_x – 8.204
PM_{2.5} - 0.611
HC - 1.143
CO – 3.629

The lifetime emission reductions are (in short tons) for the 26 school bus replacements under the Appendix D-2 Volkswagen Environmental Mitigation Plan:

NO_x – 8.809
PM_{2.5} - 0.776
HC - 1.272
CO – 4.421

Describe How the Beneficiary will Make Documentation Publicly Available (5.2.7.2)

Subparagraph 5.2.7.2 of the Environmental Mitigation Trust Agreement for State Beneficiaries requires that Beneficiaries include in their funding requests:

A commitment by the Beneficiary to maintain and make publicly available all documentation submitted in support of the 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, together with an explanation of the procedures by which the Beneficiary shall make such documentation publicly available;

The Department of Natural Resources and Environmental Control (DNREC) in the State of Delaware is committed to maintaining and making publicly available all documentation submitted support of the funding requests and all records supporting all expenditures of Eligible Mitigation Action funds. .

The public will be able to view funding requests on the DNREC website. DNREC will maintain these records on the Volkswagen (VW) Environmental Mitigation Trust Fund specific webpage. The webpage is designed to support public access and limit burden for the general public. The webpage can currently be found at <https://ndep.nv.gov/air/vw-settlement>.

DNREC has also created an electronic listserv. The Listserv is open to the public, used to communicate news, events, and information related the Environmental Mitigation Trust Fund. The listserv is advertised through the website and at public events related to the Volkswagen Environmental Mitigation Fund.

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

The Delaware Department of Natural Resources and Environmental Control sent emails to the representatives from the U.S. Department of the Interior and the U.S. Department of Agriculture listed in subparagraph 4.2.8 of the State Trust Agreement on February 19, 2018.

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

The State of Delaware has been designated by the U.S. Environmental Protection Agency (EPA) as non-attainment for ozone (2008 and 2015 standards) in New Castle County and Sussex (2008 standards). Delaware's New Castle County has also been re-designated as attaining the fine particulate matter standard for both 1997 and 2006. New Castle County has a 10-yr maintenance plan in place.

The Department has recommended that FY2018 Diesel Emission Reduction Act (DERA) funds and Volkswagen Environmental Mitigation Funds under Phase 1 be used to replace diesel school buses with cleaner school buses. DNREC's 2014 Emissions Inventory has concluded that up to 72% of in-state NOx emissions can be attributed to the transportation sector. Delaware's emissions from heavy and medium duty vehicles (which include school buses) are becoming an increasingly larger source of overall mobile source emissions for nitrogen oxides (NOx).

Studies have demonstrated that older, more polluting diesel school buses present significant health risks for the students who typically ride the bus. This includes the exacerbation of pre-existing pulmonary disorders such as asthma. Asthma is the most common long-term childhood disease, making newer and cleaner buses an urgent priority. Additionally, children are more susceptible to air pollution because their respiratory systems are still developing and they have faster breathing rates than do adults.

Lastly, replacing school buses with buses that operate on cleaner burning fuel will assist the Department in reducing emissions in Delaware's environmental justice areas. Environmental Justice is the act of equity among all races, ethnicities, income, and social classes of people and includes any census tract with a poverty level of 20% or higher and where 30% or more are considered minorities.

The Department's mission relative to environmental justice ensures that no particular area receives disproportionate environmental impacts due to air pollution.

ATTACHMENT B

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

Project management Plan/ Project Schedule and Milestones

Milestone	Date
Solicitation of DERA Option Project Partner – Department of Education	Q2 2018
Department of Education identifies school buses for replacement 31 school buses are identified for the DERA option 26 school buses identified for VW Phase 1 Year 1	Q2 2018
EPA Granted Award	Q3 2018
Department of Education submits ITB & selects vendors	Q4 2018 /Q1 2019
Department of Education orders replacement school buses	Q1 2019
DNREC/Department of Education MOU signed for DERA Option & Phase 1 Year 1.	Q2 2019
DNREC/Department of Education replaces school buses and begin destroying buses.	Q3 2019
Trustee Receives Funding Request - Funding Approved and Issued to DNREC	Q3 2019
DNREC reimburses Department of Education for DERA Option & VW Phase 1 Year 1	Q4 2019

Project Budget

Budget Category	Federal DERA Grant Funds	Share of Total Budget Funded by the Trust	Cost Share (Paid by Project Partner)	Sub-Total
School Bus Replacements – FY 2018 DERA (31 bus replacements)	\$396,410.25	\$ 274,182.00	\$2,096,660.75	\$2,767,253.00
School Bus Replacements – VW Phase 1 Year 1 (26 bus replacements)	\$ 0	\$ 721,045.20	\$1,682,438.80	\$2,403,484.00
Project Totals	\$ 396,410.25	\$ 995,227.20	\$ 3,779,099.55	\$5,170,737.00
Percentage	8%	19%	73%	

PROJECTED TRUST ALLOCATIONS

	2019
1. Anticipated Annual Project Funding Request to be paid through the Trust	\$ 995,227.20
2. Anticipated Annual Cost Share	\$ 3,779,099.55
3. Anticipated Total Project Funding by Year (line 1 plus line 2)	\$ 4,774,326.75
4. Cumulative Trustee Payments Requested/Made to Date Against Cumulative Approved Beneficiary Allocation	\$ 0
5. Current Beneficiary Project Funding to be paid through the Trust (line 1)	\$ 995,227.20
6. Total Funding Allocated to for Beneficiary, inclusive of Current Action by Year (line 4 plus line 5)	\$ 995,227.20
7. Beneficiary Share of Estimated Funds Remaining in Trust	\$ 9,676,682.97
8. Net Beneficiary Funds Remaining in Trust, net of cumulative Beneficiary Funding Actions (line 7 minus line 6)	\$ 8,681,455.77

ATTACHMENT C

Detailed Plan For Reporting On Eligible Mitigation Action Implementation

The Delaware Department of Natural Resources and Environmental Control (DNREC) will provide detailed reporting on Volkswagen Phase 1 – year 1 School Bus Replacements and the Category 10 – FY2018 DERA grant option for school bus replacements in the following ways:

- Timely updates to DNREC Volkswagen (VW) Environmental Mitigation Plan webpage;
- Delaware’s semiannual reporting obligations to Wilmington Trust (the “Trustee”); and
- Quarterly reports submitted to the Environmental Protection Agency (EPA).

DNREC maintains a Volkswagen (VW) Environmental Mitigation specific webpage that has been designed to support public access and limit burden for the general public. DNREC’s VW specific webpage can be found at <https://dnrec.alpha.delaware.gov/air/mobile-sources/vw-mitigation-plan/>. Timely updates to the webpage will inform the general public on the each project’s status.

DNREC shall, in the next semiannual report following the Trustee’s approval of this project, describe the progress implementing this Eligible Mitigation Action that will include a summary of all costs expended on the Eligible Mitigation Action through the reporting date per 5.3 of the Environmental Mitigation Trust Agreement for State Beneficiaries. The report will also include a complete description of the status, development, implementation (including project schedule and milestone updates), and any modification to this Eligible Mitigation Action.

Finally, one of the requirements of the FY 2018 Diesel Emission Reduction Act (DERA) State Clean Diesel Grant Program is the timely submission of quarterly reports to the EPA. DNREC will submit timely reports to the EPA. They will also be included in the semiannual reports that DNREC provides to the Trustee.

ATTACHMENT D - Revised

Detailed Cost Estimates From Selected or Potential Vendors For Each Proposed Expenditure Exceeding \$25,000.

The Delaware Department of Natural Resources and Environmental Control (DNREC) has provided detailed costs from the selected vendors. The attached budget lists each school bus individually and references the ITB number. Copies of the contracts between the Delaware Department of Education and American Bus, IG Burton, and Wolfington Body Co. are also included.

School District	Existing VIN	Model Year	Capacity	EPA	EPA Bonus	State Match (VW)	Mandatory Cost Share	Total Actual Cost	Original Estimated Cost	ITB-#	Unit #
DERA											
Brandywine	4DRBUSKP58A576428	2007	72			\$21,449.25	\$64,347.75	\$ 85,797.00	\$80,127.00	2019-8	Unit #1
Brandywine	4DRBUSKP48A576422	2007	72			\$21,449.25	\$64,347.75	\$ 85,797.00	\$80,127.00	2019-8	Unit #2
Brandywine	4UZAAXDH17CX1578	2007	72			\$21,449.25	\$64,347.75	\$ 85,797.00	\$80,127.00	2019-8	Unit #3
Brandywine	4UZAACP37CK52331	2003	72	\$21,449.25			\$64,347.75	\$ 85,797.00	\$80,127.00	2019-8	Unit #4
Brandywine	4DRBUSKPX8A576425	2007	72			\$21,449.25	\$64,347.75	\$ 85,797.00	\$80,127.00	2019-8	Unit #5
Brandywine	4UZAAXDH96CV56384	2006	72	\$21,449.25			\$64,347.75	\$ 85,797.00	\$80,127.00	2019-8	Unit #6
Capital	1HVBBABN2H579530	2003	72	\$21,043.25			\$63,129.75	\$ 84,173.00	\$80,127.00	2019-8	Unit #12
Capital	1HVBRABP418938050	2000	72	\$21,043.25			\$63,129.75	\$ 84,173.00	\$80,127.00	2019-8	Unit #13
Capital	4DRBRABL428946908	2002	72	\$15,313.25			\$85,939.75	\$ 101,253.00	\$80,127.00	2019-8	Unit #14
Capital	1HVBBABP91H407721	2000	72/L/AC	\$26,393.75			\$79,181.25	\$ 105,575.00	\$100,595.00	2019-8	Unit #15
Capital	1HVBBABN4H579534	2004	72/L/AC	\$26,393.75			\$79,181.25	\$ 105,575.00	\$100,595.00	2019-8	Unit #16
Christina (Diesel)	4DRBYAFM9A975269	2005	54	\$21,873.00			\$65,619.00	\$ 87,492.00	\$85,733.00	2019-8	Unit #28
Christina (Diesel)	4DRBUAF97A424192	2006	54LAC	\$22,559.75			\$67,679.25	\$ 90,239.00	\$93,733.00	2019-8	Unit #29
Christina (Diesel)	1HVBBABM8YH330825	2000	48L	\$22,563.50			\$67,690.50	\$ 90,254.00	\$92,950.00	2019-8	Unit #24
Christina (Diesel)	1HVBBABM22H549495	2002	36	\$20,520.25			\$61,560.75	\$ 82,081.00	\$74,992.00	2019-8	Unit #18
Christina (Diesel)	1HVBBABM62H549497	2002	36	\$20,520.25			\$61,560.75	\$ 82,081.00	\$79,492.00	2019-8	Unit #19
Christina (Diesel)	1HVBBABMX2H549499	2002	36	\$13,059.50	\$7,460.75		\$61,560.75	\$ 82,081.00	\$79,492.00	2019-8	Unit #20
Christina (Diesel)	4UZ3CJACS5YCF70832	1999	48/L/AC	\$22,563.50			\$67,690.50	\$ 90,254.00	\$92,950.00	2019-8	Unit #25
Christina (Diesel)	1HVBBABM74H602937	2004	36	\$20,520.25			\$61,560.75	\$ 82,081.00	\$79,492.00	2019-8	Unit #21
Christina (Diesel)	1HVBBABMX4H602933	2004	36	\$20,520.25			\$61,560.75	\$ 82,081.00	\$79,492.00	2019-8	Unit #22
Christina (Diesel)	1HVBBBM54H603004	2004	36L	\$21,767.25			\$65,301.75	\$ 87,069.00	\$93,492.00	2019-8	Unit #23
Christina (Diesel)	1HVBBABM04H603007	2004	36	\$17,608.00			\$52,824.00	\$ 70,432.00	\$79,492.00	2019-8	Unit #17
Christina (Diesel)	4UZAAXCT04CM27947	2004	48L/AC	\$11,788.25		\$10,775.25	\$67,690.50	\$ 90,254.00	\$92,950.00	2019-8	Unit #26
Christina (Diesel)	4DRBUAFM458975430	2005	48L/AC			\$19,563.50	\$70,690.50	\$ 90,254.00	\$92,950.00	2019-8	Unit #27
Red Clay	1GBM7T1C2X107566	2000	72/AC			\$21,557.25	\$64,671.75	\$ 86,229.00	\$93,794.00	2019-8	Unit #41
Red Clay	168M7J1C9X107614	2000	72/AC			\$21,970.25	\$80,150.75	\$ 102,121.00	\$93,794.00	2019-8	Unit #45
Red Clay	1HVBBAAAN74G305344	2001	72/AC			\$24,970.25	\$77,150.75	\$ 102,121.00	\$93,794.00	2019-8	Unit #46
Red Clay	4UZAAXDG46CV56610	2004	72/L/AC			\$23,390.25	\$82,170.75	\$ 105,561.00	\$100,595.00	2019-8	Unit #43
Red Clay	1HVBBABP24H603021	2004	72			\$24,169.25	\$81,391.75	\$ 105,561.00	\$100,595.00	2019-8	Unit #44
Red Clay	4UZAAXCN3CK52323	2003	72			\$21,557.25	\$64,671.75	\$ 86,229.00	\$80,127.00	2019-8	Unit #42
Woodbridge	1BAKGCKH25F225544	2005	72			\$20,431.75	\$61,295.25	\$ 81,727.00	\$80,127.00	2019-8	Unit #47
				Total	\$274,182.00	\$122,228.25	\$274,182.00	\$2,101,140.75	\$2,771,733.00	\$2,682,369.00	
Volkswagen											
Brandywine	4UZAAXDHD06CV56333	2006	72			\$25,346.40	\$59,141.60	\$ 84,488.00		2019-10	Unit #1
Brandywine	4UZAAXDH06CV56385	2006	72			\$25,346.40	\$59,141.60	\$ 84,488.00		2019-10	Unit #2
Brandywine	4UZAAXDH56CV56382	2006	72			\$25,346.40	\$59,141.60	\$ 84,488.00		2019-10	Unit #3
Brandywine	4UZAAXDH66CV56367	2006	72			\$25,346.40	\$59,141.60	\$ 84,488.00		2019-10	Unit #4
Brandywine	4UZAAXDHX7C46874	2007	60L			\$25,346.40	\$59,141.60	\$ 84,488.00		2019-10	Unit #5
Brandywine	4UZAAXDH27CX15487	2007	72			\$25,346.40	\$59,141.60	\$ 84,488.00		2019-10	Unit #6
Brandywine	4UZAAXDH37CX15479	2007	72			\$29,931.30	\$69,839.70	\$ 99,771.00		2019-10	Unit #7
Brandywine	4UZAAXDH57CX15483	2007	72			\$29,931.30	\$69,839.70	\$ 99,771.00		2019-10	Unit #8
Brandywine	4DRBUSKM88A577059	2008	48			\$31,031.70	\$72,407.30	\$ 103,439.00		2019-10	Unit #9
Brandywine	4DRBUSKP18A576426	2008	72			\$31,031.70	\$72,407.30	\$ 103,439.00		2010-10	Unit #10
Cape Henlopen (BW)	4UZAAXCP83CK60495	2003	48 L/AC			\$26,649.60	\$62,182.40	\$ 88,832.00		2019-8	Unit #7
Cape Henlopen (BW)	4UZAAXCP63CK60494	2002	48 L/AC			\$26,649.60	\$62,182.40	\$ 88,832.00		2019-8	Unit #8
Cape Henlopen (BW)	4UZAAXDH76CV56383	2006	48 L/AC			\$26,649.60	\$62,182.40	\$ 88,832.00		2019-8	Unit #9
Cape Henlopen (BW)	4DRBUAFMX58975433	2005	48 L/AC			\$26,649.60	\$62,182.40	\$ 88,832.00		2019-8	Unit #10
Cape Henlopen (BW)	4UZAAXCP93CK52329	2003	48 L/AC			\$26,649.60	\$62,182.40	\$ 88,832.00		2019-8	Unit #11
Capital	1HVBBABL23H549506	2003	72 L/AC			\$31,576.50	\$73,678.50	\$ 105,255.00		2019-10	Unit #11
Capital	1HVBBABM21H407761	2001	72 L/AC			\$30,300.30	\$70,700.70	\$ 101,001.00		2019-10	Unit #12
Capital	1HVBBABM41H407762	2001	72 L/AC			\$30,300.30	\$70,700.70	\$ 101,001.00		2019-10	Unit #13
Capital	1HVBBABM3YH330778	2000	54 L/AC			\$30,000.30	\$70,000.70	\$ 100,001.00		2019-10	Unit #14
Colonial	4UZAAXCPOCK52333	2003	72			\$21,907.80	\$51,118.20	\$ 73,026.00		2019-10	Unit #15
Colonial	4UZAAXDG06CU55258	2005	54 L/AC			\$25,561.20	\$59,642.80	\$ 85,204.00		2019-10	Unit #17
Colonial	4UZAAXDH16CU56380	2005	72			\$26,969.40	\$62,928.60	\$ 89,898.00		2019-10	Unit #16
Colonial	4UZAAXCN93CK60493	2003	72			\$27,576.30	\$64,344.70	\$ 91,921.00		2019-10	Unit #18
Red Clay (Cap)	1HVBRABP81A937506	2001	54/AC			\$28,538.10	\$66,588.90	\$ 95,127.00		2019-8	Unit #40
Red Clay (Cap)	1BAKGCH45F225545	2000	48 L/AC			\$30,531.30	\$71,239.70	\$ 101,771.00		2019-8	Unit #38
Red Clay (Cap)	1HVBBABP9YH308245	2001	48 L/AC			\$30,531.30	\$71,239.70	\$ 101,771.00		2019-8	Unit #39
				Total		\$721,045.20	\$1,682,438.80	\$2,403,484.00			

Notes

EPA match is less than 25%

EPA and EPA bonus together equal 25% match

EPA Bonus and VW Match together equal 25% match

VW Cost share is less than 25% match

VW Cost share is less than 25% match - Cost increased \$2,240 on 4-11-19. Match remained the same but DOE share increased

VW Cost share is less than 25% match - Cost increased \$2,240 on 4-11-19. Match remained the same but DOE share increased

VW Cost share is less than 25% match

VW Cost share is less than 25% match

	EPA	EPA Bonus	State Match (VW)	Mandatory Cost Share	Total Actual Cost
Grand Total	\$274,182.00	\$122,228.25	\$995,227.20	\$3,783,579.55	\$5,175,217.00



DEPARTMENT OF EDUCATION

Townsend Building
401 Federal Street Suite 2
Dover, Delaware 19901-3639
DOE WEBSITE: <http://www.doe.k12.de.us>

Susan S. Bunting, Ed.D.
Secretary of Education
Voice: (302) 735-4000
FAX: (302) 739-4654

February 28, 2019

Mr. Greg Frary
American Truck & Bus, Inc.
195 Defense Highway
Annapolis, MD 21401

Dear Mr. Frary:

This is to advise you that your firm has been awarded Units 16, 17 and 18 of ITB DOE #2019-10 for school buses. The Department of Education (DOE) is responsible for \$255,763.00, and the school districts are responsible for \$11,260.00 which results in an overall total of \$267,023.00.

Enclosed are three (3) copies of the Agreement between DOE and Vendor covering this transaction. Please sign all copies of the Agreements and return two (2) copies to DOE.

Upon receipt of two (2) signed copies of the Agreement, your bid bond will be returned and a purchase order will be processed. DOE will also instruct the school districts to issue purchase orders for their costs of the options.

Sincerely,

A handwritten signature in black ink, appearing to read "K. Klein".

Kim Klein
Director of Finance

KK/bwh

Enclosures

cc: Mr. Larry Linaweaver

MCB



AGREEMENT BETWEEN THE DEPT. OF EDUCATION AND VENDOR

Agreement made this 28th day of February in the year Two Thousand and Nineteen (2019) between the Department of Education and Vendor:

American Bus Sales & Service Inc.
195 Defense Highway
Annapolis MD 21401

for the following school buses on ITB DOE #2019-10:

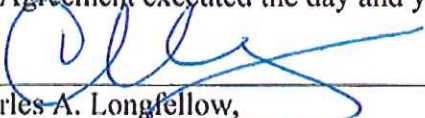
UNIT	TYPE	STATE SHARE	DISTRICT	DISTRICT SHARE	TOTAL COST PER UNIT
16	72 psg/D/A/S	\$86,538.00 ea	Colonial	\$3,360.00 ea	\$89,898.00
17	54 psg/D/A/S	\$81,254.00 ea	Colonial	\$3,950.00 ea	\$85,204.00
18	66 psg/D/L/A/S	\$87,971.00 ea	Colonial	\$3,950.00 ea	\$91,921.00

The Department of Education and Vendor agree to the following:

1. The contract consists of this Agreement and the specifications in ITB DOE #2019-10.
2. The work to be performed shall not commence or materials to be supplied shall not be ordered until the vendor receives the State of Delaware purchase order(s) to cover the cost of this contract.
3. All work shall be completed and/or materials delivered by the Vendor on or before September 15, 2019.

This Agreement executed the day and year first written above.

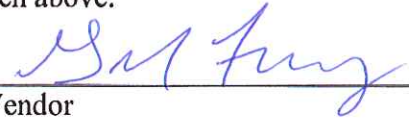
MCD
GR
KOR



Charles A. Longfellow,
Associate Secretary, Operations Support

02 MAR 19

Date



Vendor

3/1/19

Date

521898449

Federal Employer's Identification Number

1995113335

Delaware Business License Number

AGREEMENT BETWEEN THE DEPT. OF EDUCATION AND VENDOR

Agreement made this 6th day of December in the year Two Thousand and Eighteen (2018) between the Department of Education and Vendor:

I. G. Burton, Inc.
793 Bay Road
Milford, DE 19963


for the following school buses on ITB DOE #2019-08:

UNIT	TYPE	STATE SHARE	DISTRICT	DISTRICT SHARE	TOTAL COST PER UNIT
1-6	72 psg/P	\$82,400.00 ea	Brandywine	\$3,397.00 ea	\$85,797.00
12-13	72 psg/P	\$82,972.00 ea	Capital	\$1,201.00 ea	\$84,173.00
38-39	48 psg/P/L/A	\$99,190.00 ea	Red Clay	\$2,581.00 ea	\$101,771.00
47	72 psg/P	\$81,727.00 ea	Woodbridge	\$0.00 ea	\$81,727.00

The Department of Education and Vendor agree to the following:

1. The contract consists of this Agreement and the specifications in ITB DOE #2019-08.
2. The work to be performed shall not commence or materials to be supplied shall not be ordered until the vendor receives the State of Delaware purchase order(s) to cover the cost of this contract.
3. All work shall be completed and/or materials delivered by the Vendor on or before August 15, 2019.

This Agreement executed the day and year first written above.



 Charles A. Longfellow,
 Associate Secretary, Operations Support

12/6/18

 Date



 Vendor

12/6/18

 Date

51-0102421

 Federal Employer's Identification Number

198 901 2552

 Delaware Business License Number

meb
of

AGREEMENT BETWEEN THE DEPT. OF EDUCATION AND VENDOR

Agreement made this 28th day of February in the year Two Thousand and Nineteen (2019) between the Department of Education and Vendor:

I. G. Burton, Inc.
793 Bay Road
Milford, DE 19963

for the following school buses on ITB DOE #2019-10:

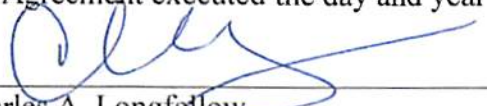
UNIT	TYPE	STATE SHARE	DISTRICT	DISTRICT SHARE	TOTAL COST PER UNIT
1-6	72 psg/P	\$80,498.00 ea	Brandywine	\$3,990.00 ea	\$84,488.00
7-8	72 psg/P/A/S	\$95,781.00 ea	Brandywine	\$3,990.00 ea	\$99,771.00
9-10	72 psg/P/L/A/S	\$99,449.00 ea	Brandywine	\$3,990.00 ea	\$103,439.00
11	72 psg/P/L/A/S	\$100,040.00 ea	Capital	\$5,215.00 ea	\$105,255.00
12-13	72 psg/P/A/S	\$95,786.00 ea	Capital	\$5,215.00 ea	\$101,001.00
14	60 psg/P/L/A/S	\$94,786.00 ea	Capital	\$5,215.00 ea	\$100,001.00

The Department of Education and Vendor agree to the following:

1. The contract consists of this Agreement and the specifications in ITB DOE #2019-10.
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3. All work shall be completed and/or materials delivered by the Vendor on or before September 15, 2019.

This Agreement executed the day and year first written above.

ACB
of
KSK



Charles A. Longfellow,
Associate Secretary, Operations Support

01 MAR 19

Date



Vendor

3/1/19

Date

51-0102421

Federal Employer's Identification Number

198 901 2552

Delaware Business License Number



DEPARTMENT OF EDUCATION

Townsend Building
401 Federal Street Suite 2
Dover, Delaware 19901-3639
DOE WEBSITE: <http://www.doe.k12.de.us>

Susan S. Bunting, Ed.D.
Secretary of Education
Voice: (302) 735-4000
FAX: (302) 739-4654

December 6, 2018

Mr. Geoffrey Wolf
Wolfington Body Co., Inc.
PO Box 218
Exton, PA 19341

Dear Mr. Wolf:

This is to advise you that your firm has been awarded Units 7-11, 14, 15-16, 17, 18-22, 23, 24-27, 28, 29, 31, 32-35, 37, 40, 41-42, 43-44, 45-46 and 48 of ITB DOE #2019-08 for school buses. The Department of Education (DOE) is responsible for \$2,945,070.00 and the school districts are responsible for \$137,010.00 which results in an overall total of \$3,082,080.00

Enclosed are three (3) copies of the Agreement between the DOE and Vendor covering this transaction. Please sign all copies of this Agreement and return two (2) copies to DOE.

Upon receipt of two (2) signed copies of this Agreement, your bid bond will be returned and a purchase order will be processed. DOE will also instruct the school districts to issue purchase orders for their costs of the options.

Sincerely,

A handwritten signature in black ink that appears to read "Kim Klein".

Kim Klein
Director Finance

KW/bwh
Enclosures
cc: Mr. Larry Linaweaver

mb

Agreement made this 6th day of December in the year Two Thousand and Eighteen (2018) between the Department of Education and Vendor:

Wolfington Body Co., Inc.
 PO Box 218
 Exton, PA 19341

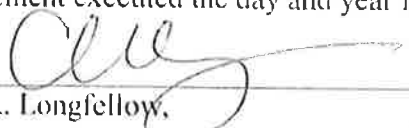
for the following school buses on ITB DOE #2019-08:

UNIT	TYPE	STATE SHARE	DISTRICT	DISTRICT SHARE	TOTAL COST PER UNIT
7-11	48psg/D/L/A	\$84,692.00 ea	Cape Henlopen	\$4,140.00 ea	\$88,832.00
14	72 psg/P/A	\$94,993.00 ea	Capital	\$6,260.00 ea	\$101,253.00
15-16	72 psg/P/L/A	\$99,315.00 ea	Capital	\$6,260.00 ea	\$105,575.00
17	36 psg/D	\$66,877.00 ea	Christina	\$3,555.00 ea	\$70,432.00
18-22	36 psg/D/A	\$78,381.00 ea	Christina	\$3,700.00 ea	\$82,081.00
23	36 psg/D/L/A	\$83,314.00 ea	Christina	\$3,755.00 ea	\$87,069.00
24-27	48 psg/D/L/A	\$86,499.00 ea	Christina	\$3,755.00 ea	\$90,254.00
28	54 psg/D/A	\$83,792.00 ea	Christina	\$3,700.00 ea	\$87,492.00
29	54 psg/D/A	\$86,484.00 ea	Christina	\$3,755.00 ea	\$90,239.00
31	66 psg/D/L/A	\$85,396.00 ea	Colonial	\$6,870.00 ea	\$92,266.00
32-35	72 psg/D	\$71,450.00 ea	Colonial	\$1,415.00 ea	\$72,865.00
37	72 psg/P	\$81,953.00 ea	Indian River	\$2,365.00 ea.	\$84,318.00
40	54 psg/P/L/A	\$91,567.00 ea	Red Clay	\$3,560.00 ea	\$95,127.00
41-42	72 psg/P	\$81,194.00 ea	Red Clay	\$5,035.00 ea	\$86,229.00
43-44	72 psg/L/A	\$100,381.00 ea	Red Clay	\$5,180.00 ea	\$105,561.00
45-46	72 psg/P/A	\$94,701.00 ea	Red Clay	\$5,180.00 ea	\$99,881.00
48	72 psg/D	\$72,351.00 ea	Woodbridge	\$0.00	\$72,351.00


The Department of Education and Vendor agree to the following:

1. The contract consists of this Agreement and the specifications in ITB DOE #2019-08.
2. The work to be performed shall not commence or materials to be supplied shall not be ordered until the vendor receives the State of Delaware purchase order(s) to cover the cost of this contract.
3. All work shall be completed and/or materials delivered by the Vendor on or before August 15, 2019.

This Agreement executed the day and year first written above.



 Charles A. Longfellow,
 Associate Secretary, Operations Support
 Date 12/6/18



 Vendor
 Date 12/6/18
 Federal Employer's Identification Number 23-1230582
 Delaware Business License Number 1989003913



AGREEMENT BETWEEN THE DEPT. OF EDUCATION AND VENDOR

Agreement made this 28th day of February in the year Two Thousand and Nineteen (2019) between the Department of Education and Vendor:

Wolfington Body Co., Inc.
PO Box 218
Exton, PA 19341


for the following school buses on ITB DOE #2019-10:

UNIT	TYPE	STATE SHARE	DISTRICT	DISTRICT SHARE	TOTAL COST PER UNIT
15	72psg/D	\$71,611.00 ea	Colonial	\$1,415.00 ea	\$73,026.00

The Department of Education and Vendor agree to the following:


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This Agreement executed the day and year first written above.

MUB
SC
FKK


Charles A. Longfellow,
Associate Secretary, Operations Support
01 MAR 19

Date



Vendor
3/5/19

Date
23-1230582

Federal Employer's Identification Number
1989003913

Delaware Business License Number



AGREEMENT BETWEEN THE DEPT. OF EDUCATION AND VENDOR

Agreement made this 28th day of February in the year Two Thousand and Nineteen (2019) between the Department of Education and Vendor:

Wolflington Body Co., Inc.
PO Box 218
Exton, PA 19341

for the following school buses on ITB DOE #2019-10:

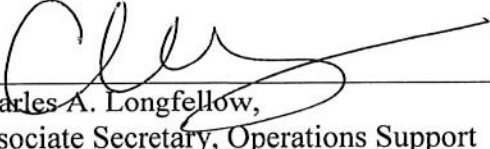
UNIT	TYPE	STATE SHARE	DISTRICT	DISTRICT SHARE	TOTAL COST PER UNIT
15	72psg/D	\$71,611.00 ea	Colonial	\$1,415.00 ea	\$73,026.00

The Department of Education and Vendor agree to the following:

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This Agreement executed the day and year first written above.


MUB
SC
KBR



 Charles A. Longfellow,
 Associate Secretary, Operations Support

01 MAR 19

 Date



 Vendor

3/5/19

 Date

23-1230582

 Federal Employer's Identification Number

1989003913

 Delaware Business License Number



ATTACHMENT E

DERA Option

The State of Delaware FY2017 -FY2018 Clean Diesel Work plan is attached. The State of Delaware is only seeking Volkswagen Environmental Mitigation Funds as a DERA-Option 10 cost share for school bus purchases under the FY2018 work plan. The State of Delaware lists 31 state owned school buses to be replaced as clean diesel or propane.

FISCAL YEAR 2018

STATE CLEAN DIESEL GRANT PROGRAM

WORK PLAN AND BUDGET NARRATIVE - Revised September 2018

SUMMARY PAGE

Project Title: School Bus Replacement Project

Project Manager and Contact Information

Organization Name: Department of Natural Resources and Environmental Control

Project Manager: Deanna M. Cuccinello

Mailing Address: 100 W. Water Street, Suite 6A Dover, DE 19904

Phone: 302-739-9402

Fax: 302-739-3106

Email: Deanna.morozowich@state.de.us

Project Budget Overview:

	FY 2017*	FY 2018
EPA Base Allocation	\$ 224,165.00	\$ 274,182.00
State Matching Funds - Audit	\$ 504.38	\$ 0
State Matching Funds – Volkswagen Funds	\$ 0	\$ 274,182.00
EPA Match Incentive - Bonus	\$ 0	\$122,229.00
EPA Match Incentive – Bonus Audit Fee	\$ 0	\$1,189.00
Mandatory Cost-Share	\$ 642,307.62	\$2,011,777.00
TOTAL Project	\$ 866,977.00	\$2,682,369.00

*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

The FY2017 grant funds will be used to replace 9 older diesel school buses with 2 new clean diesel and 7 propane school buses. Our project partners will be Hill's Bus Service Inc., Bowman Bus Service, Davis Bus Inc, Mikerra Transportation, LLC. and School Mule Inc.

The FY2018 grant funds will be used to replace 31 older diesel school buses with 18 new clean propane and 13 clean diesel school buses with the Department of Education. These buses will be replaced with DERA funds along with state and Volkswagen funds as the mandatory cost share.

Clean diesel project information can be found on the following page:

<http://www.dnrec.delaware.gov/Air/Pages/MobileSourcesLinks.aspx>

SCOPE OF WORK

The projects presented in the FY2017 work plan will be administered by the Delaware Department of Natural Resources and Environmental Control – Division of Air Quality staff and five school bus transportation providers. The FY2018 work plan will be administered by the Division of Air Quality and the Department of Education. The purpose of these projects is to reduce diesel emissions in the State of Delaware through the replacement of school buses.

STATE/TERRITORY GOALS AND PRIORITIES:

The following narrative describes how the project:

1. Will maximize public health benefits;
2. Is the most cost-effective;
3. Is in areas with high population density, that are poor air quality areas (including nonattainment or maintenance of national ambient air quality standards for a criteria pollutant; Federal Class I areas; or areas with toxic air pollutant concerns);
4. Is in areas that receive a disproportionate quantity of air pollution from diesel fleets, including truck stops, ports, rail yards, terminals, and distribution centers or that use a community-based multi-stakeholder collaborative process to reduce toxic emissions;
5. Includes a certified engine configuration or verified technology that has a long expected useful life;
6. Maximizes the useful life of any certified engine configuration or verified technology used or funded by the eligible entity; and
7. Conserves diesel fuel.

Poor air quality is a critical issue in the region. For Delaware, New Castle and Sussex County are still in non-attainment for the ozone standard. However, the state and the region have attained the standard for fine particulate pollution. The state's air quality monitors are showing clean data for

the new annual fine particulate standard and the state is part of the PM Advance Program. New Castle County is an approved PM2.5 maintenance area. Diesel emission reduction projects are still important to support Delaware’s efforts to maintain good air quality relative to particulate pollution.

Table 1 State Wide Emission Inventory (2014) below compares emissions (NOx, PM, SO2) of Non-Road Equipment with the entire Non-Road Sector (NR Equipment, Aircraft, Locomotives, and Commercial Marine Vessels).

TABLE 1 STATEWIDE EMISSION INVENTORY (2014) Criteria Air Pollutants – Non-road Sector (TPY)					
STATEWIDE ANNUAL	VOC	NOx	PM2.5-PRI	SO2	NH3
NONROAD Equipment	4,303.32	3,677.64	342.10	8.97	6.14
Aircraft	375.41	756.87	53.61	72.38	NA
Commercial Marine Vessels	107.72	2,795.64	79.99	466.74	0.82
Locomotives	21.32	406.09	13.07	4.24	0.19
Total	4,807.77	7,636.24	488.77	552.33	7.15

VEHICLES AND TECHNOLOGIES:

Transportation providers in Delaware are seeking cleaner-burning alternatives to diesel and are motivated by saving fuel costs and reducing school children’s exposure to cancer-causing and smog forming pollution through the replacement of old school buses with new lower emission diesel and propane school buses. Transportation providers are committed to providing Delaware schools with reliable, innovative and efficient green transportation solutions. The following is a list of the transportation providers and the buses that are being considered for replacement in FY2017:

- Hill’s Bus Service Inc. is a contracted bus company with the Milford School District in Kent County. They are replacing 2 diesel buses with propane school buses.

TABLE 2 - Hill’s Bus Service Inc. Equipment to be Replaced 2017.						
Bus	Seats	Fuel	Model Year	Manufacturer	Chassis	VIN
33	72	D	2003	International	International	4DRBRAAP13A954864
18	72	D	2004	International	International	4DRBRABP34A966675

- Bowman Bus Service is a contracted bus company with the Milford School District in Kent County. They are replacing 1 diesel buses with a clean diesel school bus.

TABLE 3 - Bowman Bus Service Equipment to be Replaced in 2017.						
Bus	Seats	Fuel	Model Year	Manufacturer	Chassis	VIN
88	72	D	2000	International	Bluebird	1HVBBABP3YH356615

- Davis Bus Inc. is a contracted bus company with the Delmar School District in Sussex County. They are replacing 1 diesel bus with a propane school bus.

TABLE 4 - Davis Bus Inc. Equipment to be Replaced in 2017.						
Bus	Seats	Fuel	Model Year	Manufacturer	Chassis	VIN
33	72	D	2006	International	International	4DRBUAAN96A285566

Mikerra Transportation LLC. is a contracted bus company with the Woodbridge School District in Sussex County. They are replacing 1 diesel buses with a clean diesel school bus.

TABLE 5 - Mikerra Transportation LLC. Equipment to be Replaced in 2017.						
Bus	Seats	Fuel	Model Year	Manufacturer	Chassis	VIN
3	72	D	2002	Chevrolet	Bluebird	1GBL7T1C12J508711

School Mule, Inc. is a contracted bus company with the Cape Henlopen School District in Sussex County. They are replacing 4 diesel buses with propane school buses.

TABLE 6 - School Mule, Inc. Equipment to be Replaced in 2017.						
Bus	Seats	Fuel	Model Year	Manufacturer	Chassis	VIN
1	72	D	2003	Bluebird	International	1HVBBAAP94H579480
12	72 w/Lift	D	2006	Bluebird	Bluebird	1BAKGCPA9F246986
19	72	D	2004	Bluebird	International	1HVBBAAP24H579496
22	72	D	2006	Bluebird	Bluebird	1BAKGCPA27F242729

The following is a list of 31 school buses that are being considered for replacement as propane and diesel in FY2018:

TABLE 7 – State of Delaware Department of Education Equipment to be Replaced in 2018.							
School District	Bus	Seats	Fuel	Model Year	Manufacturer	Chassis	VIN
Brandywine	30	72	D	2007	International	International	4DRBUSKP58A576428
Brandywine	32	72	D	2007	International	International	4DRBUSKP48A576422
Brandywine		72	D	2007	Freightliner	Freightliner	4UZAAXDH17CX1578
Brandywine		72	D	2003	Freightliner	Freightliner	4UZAACP37CK52331
Brandywine		72	D	2007	International	International	4DRBUSKPX8A576425
Brandywine		72	D	2006	Freightliner		4UZAAXDH96CV56384
Capital	17	72	D	2003	International	Blue Bird	1HVBBABN2H579530
Capital	52	72	D	2000	International	International	1HVBRABP41B938050
Capital		72	D	2002	Thomas	International	4DRBRABL42B946908
Capital		72/L/AC	D	2000	Blue Bird	International	1HVBBABP91H407721
Capital		72/L/AC	D	2000	Blue Bird	International	1HVBBABL41H407753
Christina (Diesel)	436	54	D	1995	Thomas	International	1HVBBABM1SH625417
Christina (Diesel)	418	54/L	D	1999	Thomas	Freightliner	4UZ6CJAAXXCF70805
Christina (Diesel)	417	48/L	D	2000	Blue Bird	International	1HVBBABM8YH330825
Christina (Diesel)	356	36	D	2002	Blue Bird	International	1HVBBABM22H549495
Christina (Diesel)	359	36	D	2002	Blue Bird	International	1HVBBABM62H549497
Christina (Diesel)	360	36	D	2002	Blue Bird	International	1HVBBABMX2H549499
Christina (Diesel)	421	48/L	D	2002	Blue Bird	International	1HVBBABL93H949504
Christina (Diesel)	368	36	D	2004	Blue Bird	International	1HVBBABM74H602937
Christina (Diesel)	370	36	D	2004	Blue Bird	International	1HVBBABMX4H602933
Christina (Diesel)	373	36/L	D	2004	International	Blue Bird	1HVBBBM54H603004
Christina (Diesel)	374	36	D	2004	Blue Bird	International	1HVBBABM04H603007
Christina (Diesel)	422	48L/AC	D	2004	Thomas	Freightliner	4UZAAWCT04CM27947
Christina (Diesel)	423	48L/AC	D	2005	International	International	4DRBUAFM45B975430
Red Clay	151	72/AC	D	2000	Blue Bird	Blue Bird	1GBM7T1C2XJ107566
Red Clay	152	72/AC	D	2000	Blue Bird	Blue Bird	168M7J1C9XJ107614
Red Clay	150	72/AC	D	2001	Blue Bird	Blue Bird	1HVBBAAAN74G305344
Red Clay	171	72/L/AC	D	2003	Thomas	Freightliner	4UZAAXCN33CK52325
Red Clay	406	72	D	2004	Bluebird	International	1HVBBABP24H603021
Red Clay	173	72	D	2003	Thomas	Freightliner	4UZAAXCNX3CK52323
Woodbridge		72	D	2005	Blue Bird		1BAKGCKH25F225544

ROLES AND RESPONSIBILITIES:

The Division of Air Quality will issue a contract to each transportation provider that requires each of them to administer the entire school bus replacement project, including request for proposals, purchase order and invoice processing, as well as, overseeing the delivery of the new buses and scrapping and destruction of the old buses. The contract will also provide a process by which the Department will release funds for the partial purchase of the replacement school buses. The Division of Air Quality will relinquish the incremental cost of a newer, cleaner medium or heavy-duty vehicle, powered by an engine certified to the 2013 model year or newer standards for highway heavy-duty engines, up to 25% of the cost of an eligible replacement vehicle/equipment. The 9 buses total \$856,410.00; therefore the replacement cost at 25% under the grant would be \$214,102.50. The bus replacements in FY2018 total **\$2,682,369**. The Department will utilize \$274,182 in DERA base funds, **\$123,418** in DERA bonus funds, **\$274,182** in Volkswagen funds as the state match, and **\$2,011,777** as the mandatory cost share from the Department of Education.

Any funds remaining from the FY2017 and FY2018 DERA grant will be returned to the EPA.

TIMELINE AND MILESTONES FOR FY2017:

- October 2017 – DERA award Granted
- November 2017 – Contracts written between the Department of Natural Resources and Environmental Control and each of the transportation providers memorializing an agreement that requires each transportation provider to administer the purchase and replacement of the diesel school buses, including request for proposals, purchase order and invoice processing as well as overseeing the replacement and scrapping requirements. The contracts will provide a process by which the Department will release the funds to purchase and replace the diesel buses with propane or clean diesel replacements.
- January 2018 – Request for Quotes for the purchase of the propane fueled and clean diesel buses. Bids are reviewed and vendor is selected. Each transportation provider will develop and establish a public process for the purchase of the school buses.
- February/March 2018– Buses will be purchased and begin operations.
- March 2018 – The old buses will be scrapped and destroyed.
- March 2019 – Each transportation provider will supply fuel usage data to the Department.

TIMELINE AND MILESTONES FOR FY2018:

- October 2018 – DERA award Granted
- November 2018 – A Memorandum of Understanding (MOU) will be written between the Department of Natural Resources and Environmental Control and the Department of Education memorializing an agreement that requires the Department of Education to administer the purchase and replacement of the diesel school buses, including request for proposals, purchase order and invoice processing as well as overseeing the replacement

and scrappage requirements. The MOU will describe a process by which the Department will release the funds to purchase and replace the diesel buses with propane replacements.

- January 2019 – Department of Education will solicit bids under a Request for Proposal for the purchase of the school buses. The bids will be reviewed and vendor(s) selected.
- February/March 2019– Buses will be ordered.
- August/September 2019 – The new buses will be placed at their respective school districts and begin operations. The old buses will be scrapped and destroyed.
- March 2020 – The Department of Education will supply fuel usage data to the Department.

DERA PROGRAMMATIC PRIORITIES:

The school bus replacement project meets all the programmatic goals and priorities set forth under DERA. Air pollution from diesel vehicles has health implications for everyone, but children are more susceptible because they breathe more air per pound of body weight than do adults. Diesel exhaust from school buses contains significant levels of fine particulate matter. Children riding older school buses are exposed to these harmful diesel pollutants. A major reason for implementing the school bus replacement project is to reduce the impact that the diesel emitting sources are having on air quality.

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

The emission reductions were calculated using the Diesel Emission Quantifier on the EPA website. All calculated values are based on the DEQ default parameters and may vary slightly from actual realized emissions. Delaware school buses reportedly average 9,000 miles a year versus the annual national average of 13,000 miles that the calculator provides as the default. Delaware compared the baseline emissions from each activity separately for one diesel and one propane school bus then compared the results for additional quantities from the diesel and propane fleets. Table 7 Projected Emission Reductions for replacement of Propane or Diesel Fueled School Buses provides the emissions reductions and cost effectiveness for the School Bus Replacement project and reflects buses with 13,000 annual VMT per bus, as the DEQ tool default suggests.

TABLE 7 PROJECTED EMISSION REDUCTIONS FOR REPLACEMENT OF PROPANE OR DIESEL FUELED SCHOOL BUSES FOR FY2017				
Annual Emissions Reduced (tons/yr)	Diesel bus (qty 1)	Propane bus (qty 1)	Diesel buses (qty 2)	Propane buses (qty 7)
NOx	0.143	0.2265	0.286	1.5855
PM	0.007	0.013	0.014	0.091
HC	0.013	0.63	0.026	4.41
CO	0.076	0.76	0.152	5.32
Lifetime Emissions Reduced				
NOx	2.154	6.342	4.308	44.394
PM	0.995	0.532	1.99	3.724
HC	0.193	0.882	1.764	6.174
CO	1.138	1.064	2.128	7.448
Lifetime Cost Effectiveness (\$/ton)				
NOx	\$640,704	\$338,612	\$1,281,408	\$2,370,284
PM	\$10,245,036	\$454,196.5	\$20,490,072	\$3,179,375.5
HC	\$7,759,776	\$570,343.5	\$15,519,552	\$3,992,404.5
CO	\$2,114,304	\$187,468.25	\$4,228,608	\$1,312,277.75

TABLE 8 PROJECTED EMISSION REDUCTIONS FOR REPLACEMENT OF PROPANE OR DIESEL FUELED SCHOOL BUSES FOR FY2018				
Annual Emissions Reduced (tons/yr)	Diesel bus (qty 1)	Propane bus (qty 1)	Diesel bus (qty 13)	Propane buses (qty 18)
NOx	0.143	0.2265	1.859	4.08
PM	0.007	0.013	0.091	0.23
HC	0.013	0.63	0.169	11.34
CO	0.076	0.76	0.988	13.68
Lifetime Emissions Reduced				
NOx	2.154	6.342	28.002	114.16
PM	0.995	0.532	12.935	9.576
HC	0.193	0.882	2.509	15.876
CO	1.138	1.064	14.794	9.152
Lifetime Cost Effectiveness (\$/ton)				
NOx	\$640,704	\$338,612	\$8,329,152	\$60,950,016
PM	\$10,245,036	\$454,196.5	\$31,854,468	\$8,175,528
HC	\$7,759,776	\$570,343.5	\$10,877,088	\$10,266,174
CO	\$2,114,304	\$187,468.25	\$27,485,952	\$3,374,424

SUSTAINABILITY OF THE PROGRAM:

All equipment will be strictly maintained and serviced as needed. If the equipment fails to perform in accordance with the manufacturer's conditions, the equipment will be repaired or replaced under the warranty provisions.

The Division of Air Quality maintains a website for Mobile Sources which includes the status and progress of DERA projects. See

<http://www.dnrec.delaware.gov/Air/Pages/MobileSourcesLinks.aspx>.

BUDGET NARRATIVE

Itemized Project Budget

TABLE 9 - FY2017/FY2018 ITEMIZED PROJECT BUDGET								
	FY 2017*			FY 2018				
Budget Category	EPA Allocation	Voluntary Match (if applicable)	Mandatory Cost-Share (if applicable)	EPA Allocation	EPA Bonus Allocation	Voluntary Match (if applicable)	Mandatory Cost-Share (if applicable)	FY 2018 Total
1. Personnel	0	0	0	0	0	0	0	0
2. Fringe Benefits	0	0	0	0	0	0	0	0
3. Travel	0	0	0	0	0	0	0	0
4. Supplies	0	0	0	0	0	0	0	0
5. Equipment	0	0	0	0	0	0	0	0
6. Contractual	\$214,102.50	0	\$642,307.62	\$274,182.00	\$122,228.25	\$274,182.00	\$2,011,776.75	\$2,682,369.00
7. Program Income	0	0	0	0	0	0	0	0
8. Other	\$10,062.50	\$504.38	0	0	\$1,189.00	0	0	\$1,189.00
9. Total Direct Charges	\$224,165.00	0	\$642,307.62	\$274,182.00	\$123,417.25	\$274,182.00	\$2,011,776.75	\$2,683,558.00
10. Indirect Charges	0	0	0	0	0	0	0	0
Total	\$224,165.00	\$504.38	\$642,307.62	\$274,182.00	\$123,418.00	\$274,182.00	\$2,011,776.75	\$2,683,558.00

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

Explanation of Budget Framework for FY2017

- **Personnel - No grant funds used.**
- **Fringe Benefits – No grant funds.**
- **Travel – No grant funds used.**
- **Equipment – No grant funds used.**
- **Supplies – No grant funds used.**

- **Contractual – The following costs have been identified for FY2017:**

TABLE 10 - FY2017 CONTRACTUAL COSTS						
Transportation Provider	Bus Number	Existing VIN	New Clean Technology	EPA	Project Partner	Total
Hill's Bus Service Inc.	#33	4DRBRAAP13A954864	propane	\$23,250.00	\$69,750.00	\$93,000.00
	#18	4DRBRABP34A966675	propane	\$23,250.00	\$69,750.00	\$93,000.00
Bowman Bus Service	#88	1HVBBABP3YH356615	diesel	\$24,738.75	\$74,216.25	\$98,955.00
Davis Bus Inc.	#33	4DRBUAAN96A285566	propane	\$23,250.00	\$69,750.00	\$93,000.00
Mikerra Transportation LLC.	#3	1GBL7T1C12J508711	diesel	\$24,738.75	\$74,216.25	\$98,955.00
School Mule, Inc	#1	1HVBBAAP94H579480	propane	\$23,250.00	\$69,750.00	\$93,000.00
	#12	1BAKGCPA9F246986	propane	\$25,125.00	\$75,375.00	\$100,500.00
	#19	1HVBBAAP24H579496	propane	\$23,250.00	\$69,750.00	\$93,000.00
	#22	1BAKGCPA27F242729	propane	\$23,250.00	\$69,750.00	\$93,000.00
			Total	\$214,102.50	\$642,307.50	\$856,410.00

- **Other – The following costs have been identified.**

TABLE 11 - FY2017 OTHER COSTS			
Category	EPA	State Match	Partner Match
Total Other Charges	\$9,894.38	0	0
Audit of Grant (0.003% of EPA Funding) = \$672.50	\$168.12	\$504.38	0
Total	\$10,062.50	\$504.38	0

- **Total Direct Charges –**

TABLE 12 - FY2017 TOTAL DIRECT COSTS			
Category	EPA	State Match	Partner Match
Total Direct Charges	\$214,102.50	0	\$642,307.50
Total	\$214,102.50	0	\$642,307.50

- **Indirect Charges – No grant funds used at this time.**

Explanation of Budget Framework for FY2018

- **Personnel - No grant funds used.**
- **Fringe Benefits – No grant funds.**

- Travel – No grant funds used.
- Equipment – No grant funds used.
- Supplies – No grant funds used.
- Contractual – The following costs have been identified:

TABLE 13 - FY2018 CONTRACTUAL COSTS							
School District	Existing VIN	Capacity	EPA	EPA Bonus	State Match (VW)	Mandatory Cost Share	Total
Brandywine	4DRBUSKP58A576428	72	\$20,031.75		\$0.00	\$60,095.25	\$80,127.00
Brandywine	4DRBUSKP48A576422	72	\$20,031.75		\$0.00	\$60,095.25	\$80,127.00
Brandywine	4UZAAXDH17CX1578	72	\$20,031.75		\$0.00	\$60,095.25	\$80,127.00
Brandywine	4UZAACP37CK52331	72	\$20,031.75		\$0.00	\$60,095.25	\$80,127.00
Brandywine	4DRBUSKPX8A576425	72	\$20,031.75		\$0.00	\$60,095.25	\$80,127.00
Brandywine	4UZAAXDH96CV56384	72	\$20,031.75		\$0.00	\$60,095.25	\$80,127.00
Capital	1HVBBABN2H579530	72	\$20,031.75		\$0.00	\$60,095.25	\$80,127.00
Capital	1HVBRABP41B938050	72	\$20,031.75		\$0.00	\$60,095.25	\$80,127.00
Capital	4DRBRABL42B946908	72	\$21,433.25		\$0.00	\$64,299.75	\$80,127.00
Capital	1HVBBABP91H407721	72/L/AC	\$23,433.25		\$0.00	\$70,299.75	\$100,595.00
Capital	1HVBBABL41H407753	72/L/AC	\$23,237.50		\$0.00	\$69,712.50	\$100,595.00
Christina (Diesel)	1HVBBABM1SH625417	54	\$18,748.00		\$0.00	\$56,244.00	\$85,733.00
Christina (Diesel)	4UZ6CJAAXXCF70805	54L	\$19,873.00		\$0.00	\$59,619.00	\$93,733.00
Christina (Diesel)	1HVBBABM8YH330825	48L	\$7,203.00		\$12,670.00	\$59,619.00	\$92,950.00
Christina (Diesel)	1HVBBABM22H549495	36		\$23,237.50	\$0.00	\$69,712.50	\$74,992.00
Christina (Diesel)	1HVBBABM62H549497	36		\$19,873.00	\$0.00	\$59,619.00	\$79,492.00
Christina (Diesel)	1HVBBABMX2H549499	36		\$19,873.00	\$0.00	\$59,619.00	\$79,492.00
Christina (Diesel)	1HVBBABL93H949504	48/L/AC		\$23,373.00	\$0.00	\$70,119.00	\$92,950.00
Christina (Diesel)	1HVBBABM74H602937	36		\$19,873.00	\$0.00	\$59,619.00	\$79,492.00
Christina (Diesel)	1HVBBABMX4H602933	36		\$15,998.75	\$7,238.75	\$69,712.50	\$79,492.00
Christina (Diesel)	1HVBBBM54H603004	36L			\$23,237.50	\$69,712.50	\$93,492.00
Christina (Diesel)	1HVBBABM04H603007	36			\$23,448.50	\$70,345.50	\$79,492.00
Christina (Diesel)	4UZAAWCT04CM27947	48L/AC			\$23,448.50	\$70,345.50	\$92,950.00
Christina (Diesel)	4DRBUAFM45B975430	48L/AC			\$23,448.50	\$70,345.50	\$92,950.00
Red Clay	1GBM7T1C2XJ107566	72/AC			\$25,148.75	\$75,446.25	\$93,754.00
Red Clay	168M7J1C9XJ107614	72/AC			\$25,148.75	\$75,446.25	\$93,754.00
Red Clay	1HVBBAAAN74G305344	72/AC			\$20,031.75	\$60,095.25	\$93,754.00
Red Clay	4UZAAXCN33CK52325	72/L/AC			\$20,031.75	\$60,095.25	\$100,595.00
Red Clay	1HVBBABP24H603021	72			\$20,031.75	\$60,095.25	\$100,595.00
Red Clay	4UZAAXCNX3CK52323	72			\$25,148.75	\$75,446.25	\$80,127.00
Woodbridge	1BAKGCKH25F225544	72			\$25,148.75	\$75,446.25	\$80,127.00
		Total	\$274,182.00	\$122,228.25	\$274,182.00	\$2,011,776.75	\$2,682,369.00

- Other – The following costs have been identified.

TABLE 14 - FY2018 OTHER COSTS					
Category	EPA Base	EPA Bonus	State Match (VW)	Mandatory Cost Share	Total
Total Other Charges	-	-	-	-	-
Audit of Grant (0.003% of EPA Funding) = \$1,189	-	\$1,189.00	-	-	-
Total	-	\$1,189.00	-	-	\$1,189.00

- Total Direct Charges –

TABLE 15 - FY2018 TOTAL DIRECT COSTS					
Category	EPA	EPA Bonus	State Match (VW)	Mandatory Cost Share	Total
Total Direct Charges	\$274,182.00	\$123,418.00	\$274,182.00	\$2,011,776.75	\$2,682,369.00
Total	\$274,182.00	\$123,418.00	\$274,182.00	\$2,011,776.75	\$2,682,369.00

- Indirect Charges – No grant funds used at this time.

Please note the following changes with the approved DERA work plan.

On February 25, 2019 the Department of Education (project partner) notified the Department of Natural Resources and Environmental Control that two buses listed for replacement were missing from their bus yards and may have been sold at state auction. The Department of Natural Resources and Environmental Control immediately notified the EPA. The EPA permitted the two buses to be replaced with similar buses.

District	VIN	New Replacement VIN
Red Clay	4UZAAXCN33CK52325	4UZAAXDG46CV56610
Capital	1HVBBABL41H407753	1HVBBABNX4H579534

Additionally some budgetary changes were necessary in the Contractual Category of the budget. The EPA was notified of this change and did not believe a revision to the work plan was necessary. The overall costs in the Contractual Category were adjusted to align with the actual identified vendor costs. The budget as presented in the work plan did not change. The actual costs for each bus are presented in Attachment D of this funding request.

ENVIRONMENTAL MITIGATION PLAN ATTACHMENT

A Copy of Delaware's Environmental Mitigation Plan is attached.



State of Delaware

**Department of Natural Resources and
Environmental Control**

Volkswagen Environmental Mitigation Plan

December 2018

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I. BACKGROUND

On October 18, 2016, an initial Partial Consent Decree was finalized between the U.S. Justice Department, the Volkswagen (VW) Corporation, and its subsidiaries regarding the installation and use of emissions testing defeat devices in approximately 590,000 2.0 and 3.0 liter engine vehicles sold and operated in the United States beginning with model 2009 through 2014. A second partial settlement was approved for the 3.0 liter engine class of vehicles on May 17, 2017. Use of these defeat devices has increased air emissions of nitrogen oxide (NOx), resulting in adverse impacts to air quality and violating the federal Clean Air Act. NOx emissions contribute to the formation of ground-level ozone, which impairs lung function and cardiovascular health.

The Environmental Mitigation Trust Agreement for State Beneficiaries (Trust) dated October 2, 2017 has been established as part of the Partial Consent Decrees. Funds are to be used for environmental mitigation projects that reduce emissions of nitrogen oxides (“NOx”) where the Subject Vehicles were, are, or will be operated. The Trust Agreement is intended to fully mitigate the total, lifetime excess NOx emissions from the Subject Vehicles where the Subject Vehicles were, are, or will be operated.

The State of Delaware has been allocated approximately \$9.6 million from the Environmental Mitigation Trust based on the number of affected vehicles in Delaware. Delaware applied for Beneficiary status on November 27, 2017 and officially became eligible to receive funds on January 29, 2018. Wilmington Trust, as the court appointed Trustee, holds all funds and will disburse the funds upon receiving a state submitted work plan and budget. The Trust establishes a process to administer and receive the funds, including the development of a mitigation plan, and the types of mitigation projects eligible for funding¹.

¹ Appendix D of the Partial Consent Decree MDL No. 2672 CRB (JSC)

In addition to projects that reduce NO_x emissions, under the partial consent decree, states may allocate up to 15% of the funds towards zero emission vehicle fueling and charging infrastructure (i.e. Hydrogen fueling and electric vehicle charging stations).

II. OVERVIEW, OBJECTIVES AND FUNDING PRIORITIES

On behalf of the State of Delaware, the Department of Natural Resources & Environmental Control (DNREC) has developed this Proposed Environmental Mitigation Plan to provide the public with insight into the state's vision and overall approach to use the mitigation trust funds. The primary goal of the State of Delaware's mitigation plan is to improve and protect ambient air quality by implementing eligible mitigation projects that will achieve significant and sustained reductions in NO_x emission exposures in the following:

- Areas with poor air quality;
- Areas with historical air quality issues; and
- Areas that receive a disproportionate quantity of air pollution from diesel vehicles.

In accordance with Appendix D of the Partial Consent Decree,² this Proposed Environmental Mitigation Plan specifically describes:

- The funding priorities established to guide the planning, solicitation, and project selection processes,

² Section 4.1 Beneficiary Mitigation Plan, Appendix D of the Partial Consent Decree MDL No. 2672 CRB (JSC).

-
- The categories of eligible mitigation projects anticipated to be appropriate to achieve the stated goals and the assessment of the allocation of funds anticipated to be used for each type of eligible mitigation project,
 - How the state may consider the potential beneficial impact of the selected eligible mitigation projects on air quality in areas that historically bear a disproportionate share of the air pollution burden, and
 - The anticipated ranges of emission benefits that would be realized by implementation of the eligible mitigation projects identified in the Environmental Mitigation Plan.

In addition to the above listed Environmental Mitigation Plan components, DNREC will seek and consider public comments on the State of Delaware's Proposed Environmental Mitigation Plan, which will be included in the final plan as required by the Consent Decree³.

The State of Delaware has the discretion to adjust its objectives and specific spending plan when necessary to achieve the plan's goal; for that reason, this plan is a living document. The State of Delaware will provide updates of the mitigation plan to the Trustee and on DNREC's public webpage about Delaware's actions for meeting the requirements of the Partial Consent Decree and the Mitigation Trust, at:

<http://www.dnrec.delaware.gov/air/Pages/VWMitigationPlan.aspx>

This Proposed Environmental Mitigation Plan is not a solicitation for projects. As such, this plan does not include details on the competitive application.

³ <https://www.epa.gov/enforcement/third-partial-and-30l-second-partial-and-20l-partial-and-amended-consent-decree>

III. PHASED FUNDING APPROACH AND ELIGIBLE APPLICANTS

DNREC is proposing a three-phase plan for the State of Delaware's allocation of funding. A phased plan will allow the state to:

- Build transparency and involve the public in reviewing and revising the plan between phases;
- Learn which projects work best, and modify requests for proposals in subsequent phases to focus on the most effective projects;
- Allow the state to identify environmental justice areas; and
- Allow the state to adjust priorities and investments based on the newest and most up-to-date vehicle technology.

The first phase of funding will be the first step in achieving our goals for the program. The three phases of funding are:

- **Phase 1: \$3,225,560.99 (2018/2021)** – DNREC proposes to replace old diesel school buses with new cleaner school buses.
- **Phase 2: \$3,225,560.00 (2019/2020)** – DNREC is proposing a competitive RFP for projects in all categories. Projects will be determined by eligibility criteria set forth in the plan.
- **Phase 3: \$3.2 million (2020/2021)** – DNREC will allocate 15% of the funds for electric vehicle supply equipment and evaluate Phase 1 and 2 to develop a path forward to best fit Delaware's needs with the remaining funds. Projects may consist of more school bus replacements or another RFP.

Delaware's allocation of Trust funds is \$9,676,682.97 (0.33% of the total \$2.9 billion in Trust funds made available to states and Tribes). DNREC anticipates that Trust funds will be made available for mitigation projects by the fall of 2018. A detailed project timeline can be found in **Table 1**.

Table 1 - Tentative Timeline of Events

Event	Time Frame
Court approves the partial settlement	October 25, 2016
Court Approves Trustee	March 15, 2017
Court Approves Trust	October 2, 2017
Delaware files Beneficiary Certification Application	November 27, 2017
Trustee Certifies Delaware as a Beneficiary	January 29, 2018
Public Comment on the draft Mitigation Plan	March 28, 2018
Delaware submits Mitigation Plan	Quarter 3 2018*
Delaware implements Phase 1 projects	Quarter 4 2018*
Delaware releases RFP – Phase 2	Quarter 1 2019*
Public Comment on Draft Mitigation Plan – Phase 2	Quarter 2 2019*
Delaware submits Phase 2 projects	Quarter 3 2019*
Delaware implements Phase 2 projects	Quarter 4 2019*
Delaware evaluates Phase 3 projects and releases an RFP, if required.	Quarter 1 2020*
Public Comment on Draft Mitigation Plan – Phase 3	Quarter 2 2020*
Delaware submits Phase 3 projects	Quarter 3 2020*
Delaware implements Phase 3 projects	Quarter 4 2020*

*Dates are estimates and are subject to change.

DNREC will maintain and make publically available all documentation submitted in the support of each funding request on the VW Settlement project website⁴.

⁴DNREC Website: <http://www.dnrec.delaware.gov/air/Pages/VWMitigationPlan.aspx>

IV. DETAILED SUMMARY OF THREE-PHASED SPENDING APPROACH

Phase 1 - School Bus Replacement Program:

The Department has recommended that Phase 1 funding be used to replace diesel school buses with cleaner school buses. DNREC's 2014 Emissions Inventory has concluded that up to 72% of in-state NO_x emissions can be attributed to the transportation sector. Delaware's emissions from heavy and medium duty vehicles (which include school buses) are becoming an increasingly larger source of overall mobile source emissions for nitrogen oxides (NO_x), as shown in Figure 1.

Research shows NO_x emissions will be reduced by 11 percent just by replacing a diesel school bus with a new propane school bus⁵.

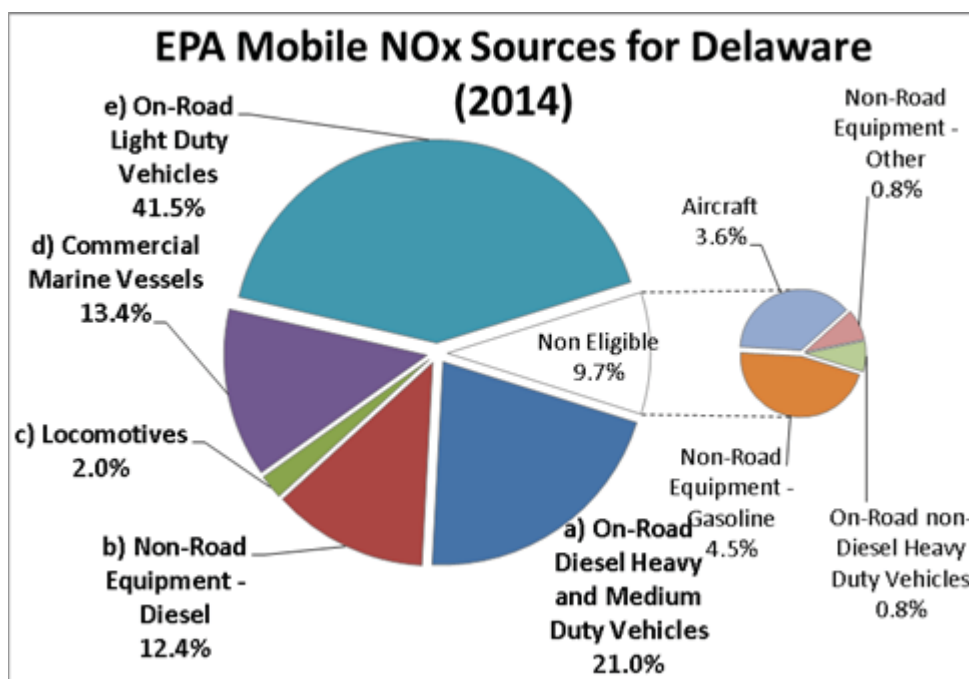


Figure 1 - Mobile NO_x Sources for Delaware (Source 2014 NEI v1)

⁵ Propane education and Research Council - <https://www.propanecouncil.org/>

Studies have demonstrated that older, more polluting diesel school buses present significant health risks for the students who typically ride the bus. This includes the exacerbation of pre-existing pulmonary disorders such as asthma. Asthma is the most common long-term childhood disease, making newer and cleaner buses an urgent priority. Additionally, children are more susceptible to air pollution because their respiratory systems are still developing and they have faster breathing rates than do adults⁶.

Lastly, replacing school buses with buses that operate on cleaner burning fuel will assist the Department in reducing emissions in Delaware's environmental justice (EJ) areas. Environmental Justice is the act of equity among all races, ethnicities, income and social classes of people and includes any census tract with a poverty level of 20% or higher and where 30% or more are considered minorities. The Department's mission relative to environmental justice ensures that no particular area receives disproportionate environmental impacts due to air pollution.

Phase 1 - Program Requirements:

In Phase 1, the Department proposes to use up to 1/3 of the allocated Trust funds or \$3,225,560.99 to provide funds to the Department of Education for the replacement of school buses with cleaner burning fuel. The Department is proposing a cost share of 30% for a school bus replacement.

To be eligible, each school bus being replaced must be:

- 1) Scrapped and destroyed at the time of replacement;
- 2) Owned and operated in Delaware;
- 3) Equipped with a model year 1992 to 2009 engine;

⁶ American Lung Association – <http://www.ala.org>

- 4) Serve a public school district or a charter school in Delaware where at least 40% of the students are disparately impacted as shown in **Table 2 and Table 3**;
- 5) Each new bus purchased must be of equivalent size as the bus being replaced;
- 6) The bus must be replaced with a model year 2018 or newer; and
- 7) The replaced school bus must be fueled by propane or clean diesel.

Table 2 - Percentage of Disparately Impacted Students by School District

County	School District	Disparately Impacted (%)
New Castle County	Appoquinimink	13.2
	Brandywine	29.8
	Christina	42.9
	Colonial	39.8
	New Castle Co. Vo-Tech	27.6
	Red Clay	34.1
	Smyrna	24.9
Kent County	Caesar Rodney	30.5
	Capital	48.9
	Lake Forest	39.4
	Milford	41.2
	Polytech Vo-Tech	17.0
Sussex County	Cape Henlopen	29.0
	Delmar	14.2
	Indian River	36.0
	Laurel	47.4
	Seaford	47.7
	Sussex Technical	16.6
	Woodbridge	41.9

Table 3 - Percentage of Disparately Impacted Students by Charter School

County	Charter School	Disparately Impacted (%)
New Castle County	Academia Antonia Alonso	57.3
	Charter School of New Castle	51.4
	Delaware Academy of Public Safety and Security	39.9
	Delaware Design-Lab High School	29.9
	East Side Charter School	79.3
	First State Montessori Academy	11.6
	Freire Charter School	48.9
	Gateway Lab School	42.3
	Great Oaks Charter School	55.8
	Kuumba Academy Charter School	62.2
	Las Americas Aspira Academy	25.4
	MOT Charter School	5.3
	Moyer (Maurice J.) Academy	20.0
	Newark Charter School	8.0
Odyssey Charter School	14.4	
Prestige Academy	73.4	
Kent County	Academy of Dover	67.8
	Campus Community Charter School	40.0
	Early College High School at Delaware State University	33.1
	First State Military Academy	24.9
	Positive Outcomes Charter School	30.2
	Providence Creek Academy Charter School	18.0
Sussex County	Sussex Academy	9.0

Phase 2 - Competitive RFP Program:

In phase 2 of the plan, the Department will provide up to 1/3 of the allocated Trust funds or \$3,225,560.99 in 2019 for the replacement of eligible mitigation actions.

The Department will issue a competitive request for proposals (RFP) for projects that reduce nitrogen oxide (NOx) emissions from the transportation sector.

The following mitigation project types will be eligible for use of the VW Settlement Funds per the Trust Agreement found in Appendix D-2:

- 1.) **Class 8 Local Freight Trucks and Port Drayage Trucks (Eligible Large Trucks)**
- 2.) **Class 4-8 School Bus, Shuttle Bus, or Transit Bus (Eligible Buses)**
- 3.) **Freight Switchers**
- 4.) **Ferries/Tugs**
- 5.) **Ocean Going Vessels (OGV) Shorepower**
- 6.) **Class 4-7 Local Freight Trucks (Medium Trucks)**
- 7.) **Airport Ground Support Equipment**
- 8.) **Forklifts and Port Cargo Handling Equipment**

Environmental Benefits:

The retrofit, repower, or replacement of eligible vehicles and equipment may provide a wide range of emission benefits based on many variables, including the type of vehicle or engine replaced, the initial age of the engine, and the engine power rating.

Each of the 8 project categories outlined in the VW Settlement Environmental Mitigation Plan will result in the following combined environmental benefits:

-
- Tons of pollution reduced or avoided over the lifetime of the zero emissions vehicle supply equipment, specifically, NO_x, PM_{2.5}, GHGs such as CO₂ and black carbon,
 - Net reduction in gallons of diesel fuel and/or other fossil fuels used,
 - Improved ambient air quality and human health in communities located in nonattainment areas, areas with historical air quality issues, or in areas that bear a disproportionate share of the air pollution burden, as well as benefits to the local economy, and the welfare of residents in such communities, and
 - Reduced public exposure to diesel particulate matter, which the U.S. EPA has classified as a likely human carcinogen.

Additionally, based on current EPA exhaust emission standards for NO_x:⁷

- Heavy duty highway vehicles may provide up to a 96% reduction in NO_x emissions per vehicle, based on replacing a model year 1992 engine with a model year 2007 engine,
- Non-road equipment replacements, depending on the type of equipment and engine power rating, may provide between a 20% and 95% reduction in NO_x emissions per engine,
- In locomotives, replacing the oldest (Tier 0) engine with the newest (Tier 4) engine may provide up to an 89% NO_x reduction per engine,

⁷ EPA exhaust emission standard data retrieved from: <https://www.epa.gov/emission-standards-reference-guide>.

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- In commercial marine vessels, an upgrade or repower of a ferry or tug engine may provide up to an 80% NOx reduction for each vessel, and
 - Shorepower projects may reduce all NOx exhaust emissions from many ocean-going vessels.

These anticipated ranges of emission benefits were used to inform the plan's funding priorities, categories of eligible mitigation projects, and funding allocation considerations for each category of eligible mitigation projects. It is important to note that the range of emission benefits mentioned above are for individual engines and actual NOx emissions reductions will vary based on the type of projects received for funding consideration and the eligible mitigation projects ultimately funded. However, in order to achieve the goal of the state mitigation plan, it is a priority to fund sizeable projects designed to achieve the greatest emission reduction for the dollar (i.e., capital cost effectiveness in dollars/ton).

The cost shares and requirements involved for each vehicle or equipment repower or replacement will be equivalent to the terms of the Diesel Emission Reduction (DERA)⁸ grant. Cost shares identified in **Table 4** are based on the FY2017 State Clean Diesel Program Guide⁹.

⁸ The DERA program is a Congressionally-authorized project that enables the U.S. EPA to offer assistance for actions reducing diesel emissions. Thirty percent of the annual DERA funds are allocated to the DERA Clean Diesel State Grant Program. States and territories that match the base amount dollar per dollar receive an additional amount of EPA DERA funding to add to the grant (50% of the base amount). Trust funds can be used for states or territories non-federal match on a 1:1 basis.

⁹ 2017 FY2017 State Clean Diesel Program Guide - <https://www.epa.gov/sites/production/files/2017-02/documents/fy17-state-program-guide-2017-02.pdf>

Table 4 - Cost Shares for Eligible Mitigation Actions

Eligible Mitigation Action	Activity	Vehicle and Equipment Eligibility (Engine Model Year or Tier)	Proposed VW Funding	Cost Share Required
Class 8 Local Freight Trucks and Port Drayage Trucks (Eligible Large Trucks) & Class 4-7 Local Freight Trucks (Eligible Medium Trucks)	Engine replacement with new diesel or alternate fueled engine	1992-2009	40%	60%
	Engine replacement with new all-electric engine	1992-2009	60%	40%
	Vehicle replacement with new diesel or alternate fueled vehicle	1992-2009	25% (50% for Drayage)	75% (50% for Drayage)
	Vehicle Replacement with all-electric vehicle	1992-2009	45%	55%
Class 4-8 School Bus, Shuttle Bus, or Transit Bus (Eligible Buses)	Engine replacement with new diesel or alternate fueled engine	2009 and older	40%	60%
	Engine replacement with new all-electric engine	2009 and older	60%	40%
	Vehicle replacement with new diesel or alternate fueled vehicle	2009 and older	25%	75%
	Vehicle Replacement with all-electric vehicle	2009 and older	45%	55%
Freight Switchers	Engine replacement with new diesel or alternate fueled engine or generator sets that are EPA certified	Pre-Tier 4	40%	60%
	Engine replacement with new all-electric engine	Pre-Tier 4	60%	40%
	Locomotive replacement with new diesel or alternate fueled freight switcher that is EPA certified	Pre-Tier 4	25%	75%
	Locomotive replacement with new all-electric freight switcher	Pre-Tier 4	45%	55%

Eligible Mitigation Action	Activity	Vehicle and Equipment Eligibility (Engine Model Year or Tier)	Proposed VW Funding	Cost Share Required
Ferries/Tugs	Engine replacement with new Tier 3 or 4 diesel or alternate fueled engine	Pre-Tier 3	40%	60%
	Engine replacement with new all-electric engine	Pre-Tier 3	60%	40%
	Certified Remanufacture System or Verified Engine Upgrade	Pre-Tier 3	40%	60%
Ocean Going Vessels	Costs associated with shore-side system	n/a	25%	75%
Airport Ground Support Equipment	Engine replacement with new all-electric engine	Pre-Tier 3	60%	40%
Forklifts and Port Cargo Handling Equipment	Equipment replacement with new all-electric equipment	8000+ lbs lift capacity	45%	55%

Non-government and government entities are eligible to apply for funding to implement mitigation projects. Project funding will be awarded through a competitive process in accordance with Delaware's procurement laws¹⁰. Any unspent funds remaining at the end of Phase 2 will be rolled into Phase 3.

Diesel Emission Reduction Act (DERA):

The Department may leverage the projects in all phases in order to received additional Diesel Emission Reduction Act (DERA) grant funding. Any source type applying for grant funding will be subject to the requirements of the DERA State Clean Diesel Grant Program, including but not limited to general eligibility, project evaluation

¹⁰ Delaware Procurement laws can be found at <http://mymarketplace.delaware.gov/>

criteria, eligible project and administrative expenditures, cost-share, and funding restrictions.

The projects submitted via the RFP will be reviewed by a Department established Project Selection Committee. The committee will select and rank project applications based on a set “Project Scoring Criteria/Matrix” developed by the Department as shown in **Table 5** expressly for this purpose.

Phase 2 Program Requirements:

To be eligible, each vehicle or piece of equipment to be repowered or replaced must be:

- 1) Scrapped and destroyed at the time of replacement;
- 2) Owned and operated in Delaware;
- 3) Equipped with an eligible model year engine or Tier level;
- 4) Serve an environmental justice area;
- 5) Each new vehicle or engine purchased must be of appropriate /equivalent size as the vehicle or engine being replaced; and
- 6) The new vehicle must be replaced with a model year 2018 or newer.

Volkswagen RFP Scoring Matrix:

The Department has developed a project RFP scoring criteria/matrix. Each application submitted will be scored based on the factors outlined in the matrix in **Table 5**. The number of projects that are selected for funding in phases 2 and 3 will depend on the applications received and interest by vehicle and equipment owners.

The following criteria will be used by the grant Review Committee to review and score applications received for the VW Mitigation Funds:

Table 5 - VW Settlement RFP Award Criteria

Project Award Criteria	Points Possible	Points Awarded	Comments
<p>Measurable, verifiable reduction in NOx emissions</p> <ul style="list-style-type: none"> - The project will produce a net reduction in NOx emissions in the State and result in a measurable, verifiable reduction in NOx per ton of emissions using the Diesel Emission Quantifier. - Projects must meet eligibility requirements of Appendix D-2 of the VW Mitigation Plan 	30		
<p>Project Budget</p> <ul style="list-style-type: none"> -The proposed budget is thorough, robust, realistic and cost effective. - The applicant must show a detailed budget with all cost shares explained. 	15		
<p>Proposed Project Location</p> <ul style="list-style-type: none"> - The project is sited near a major highway or transportation corridor, shipping route, or near a shipping logistics center. - This project will address an environmental justice (EJ) area or related location that receives a disparate proportion of environmental impacts. - The project avoids environmentally sensitive areas or areas containing critical habitats. -Priority will be given to projects in non-attainment and air quality maintenance areas. 	15		
<p>Project Timeline</p> <p>The proposed project must define when the project will commence and will end.</p>	15		

Project Award Criteria	Points Possible	Points Awarded	Comments
Ability to be Replicated throughout the State - The proposed project has the ability to be replicated throughout the state with other fleets or for public access.	10		
Collaboration with other Entities in the State - The project includes collaborative efforts between the applicant and project team (an anchor fleet or fleets, utility/fuel provider, vehicle dealer, or manufacturer).	10		
Economic Development - The project creates and/or retains local jobs for Delawareans. - The project serves as an economic development engine for local Delaware based companies.	5		
Total Points	100		

Phase 3 - A Hybrid Program:

During Phase 3 of this funding, DNREC's Division of Energy and Climate will receive 15% or \$1,451,502.45 of the Trust funds (2020) for the deployment of electric vehicle supply equipment. These funds will be distributed through an RFP process. Project eligibility and scoring criteria will be finalized closer to Phase 3 to ensure that the most up-to-date technology (i.e. higher powered stations) and charging station gaps are being considered.

In addition to the funding for electric vehicle charging stations, the Department will evaluate the effectiveness of both Phases 1 and 2 to determine the best path forward (ie: whether the Department should continue to pursue retrofitting additional school buses or whether the funds would be better spent on one of the 8 eligible mitigation project categories).

The Department will direct the final allocation (\$1,774,058.54) to eligible NOx reducing projects. Any remaining Trust funds from Phase 1 and Phase 2 will be allocated for the remaining categories of eligible projects, based on the funding priorities delineated in this plan. The Department reserves the right to continue replacing school buses as a priority, if sufficient eligible project applications are not received. Any unspent funds remaining after Phase 3 may result in the Department proposing an additional request for projects via the same competitive process previously described.