

APPENDIX D-4
Beneficiary Eligible Mitigation Action Certification

BENEFICIARY ELIGIBLE MITIGATION ACTION CERTIFICATION

Beneficiary State of Iowa

Lead Agency Authorized to Act on Behalf of the Beneficiary Iowa Department of Transportation
(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:	2019-2020 Diesel Emission Reduction Act (DERA) Option
Beneficiary's Project ID:	EMA 10
Funding Request No.	(sequential) 11
Request Type: (select one or more)	☐ Reimbursement ☒ Advance ☐ Other (specify): _____
Payment to be made to: (select one or more)	☒ Beneficiary ☐ Other (specify): _____
Funding Request & Direction (Attachment A)	☒ Attached to this Certification ☐ To be Provided Separately

SUMMARY

Eligible Mitigation Action	☒ Appendix D-2 item (specify): <u>Item 10</u>
Action Type	☒ Item 10 - DERA Option (5.2.12) (specify and attach DERA Proposal):
Explanation of how funding request fits into Beneficiary's Mitigation Plan (5.2.1): Iowa's Beneficiary Mitigation Plan states that Iowa will use Volkswagen Trust Funds as voluntary state match.	
Detailed Description of Mitigation Action Item Including Community and Air Quality Benefits (5.2.2): Overall detail can be found in attachments D, E, and the attached DERA Work Plan. Estimated lifetime benefits are 52.63 short tons for NOx, 3.256 short tons for PM2.5, 4.412 short tons for HC, 11.88 short tons for CO, and 2864.80 short tons for CO2.	
Estimate of Anticipated NOx Reductions (5.2.3): According to EPA's Diesel Emissions Quantifier, the estimated anticipated NOx reductions from these projects are 52.63 short tons (lifetime).	
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): Iowa Department of Transportation - Planning, Programming, and Modal Bureau	
Describe how the Beneficiary will make documentation publicly available (5.2.7.2). The public may access documents pursuant to Iowa Code, Chapter 22 and 761 I.A.C.4. In addition, information will be available on Iowa's VW website at www.iowadot.gov/vwsettlement	
Describe any cost share requirement to be placed on each NOx source proposed to be mitigated (5.2.8). This is outlined in Attachment E, the DERA Work Plan, and the 2020 DERA Information Guide.	
Describe how the Beneficiary complied with subparagraph 4.2.8, related to notice to U.S. Government Agencies (5.2.9). On February 22, 2018, the Iowa DOT emailed representatives from the National Park Service, U.S. Fish and Wildlife Service, and Department of Agriculture, providing a copy of the State Trust Agreement and informing them of the availability of the funds.	

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

Projects were ranked and awarded based on counties with higher concentrations of mobile and non-point NO_x emissions, higher rates of asthma and heart failure, higher rates of poverty, higher rates of young and elderly populations.

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 State of Iowa, and the person executing this certification has authority to make this certification on behalf of the Lead Agency and Beneficiary, pursuant to the Certification for Beneficiary Status filed with the Court.**
- 2. Beneficiary requests and directs that the Trustee make the payments described in this application and Attachment A to this Form.**
- 3. This application contains all information and certifications required by Paragraph 5.2 of the Trust Agreement, and the Trustee may rely on this application, Attachment A, and related certifications in making disbursements of trust funds for the aforementioned Project ID.**
- 4. Any vendors were or will be selected in accordance with a jurisdiction's public contracting law as applicable. (5.2.5)**
- 5. Beneficiary will maintain and make publicly available all documentation submitted in**

support of this funding request and all records supporting all expenditures of eligible mitigation action funds subject to applicable laws governing the publication of confidential business information and personally identifiable information. (5.2.7.2)

DATED:

April 7, 2026



Scott C. Marler
Director

Iowa Department of Transportation

[LEAD AGENCY]

for

State of Iowa

[BENEFICIARY]

ATTACHMENT B

ELIGIBLE MITIGATION ACTION MANAGEMENT PLAN INCLUDING DETAILED BUDGET AND IMPLEMENTATION AND EXPENDITURES TIMELINE

MANAGEMENT PLAN SCHEDULE AND MILESTONES

MILESTONE	COMPLETION DATE - 2019	COMPLETION DATE - 2020
Draft DERA Work Plan Due	June 4, 2019	June 4, 2020
Final Approved DERA Work Plan and Budget Submittal	June 25, 2019	June 25, 2020
Provide Notice of Availability of DERA funds	September 28, 2019	September 28, 2020
Project Period for FY 2018 DERA Begins	October 1, 2019	October 1, 2020
Quarterly Report Due	October 30, 2019	October 30, 2020
Participant Submits Application	November 9, 2019	November 9, 2020
Application Evaluation, Scoring and Ranking	December 20, 2019	December 20, 2020
Provide Written Approval of Participant Proposal	January 2, 2020	January 2, 2021
Quarterly Report Due	January 30, 2020	January 30, 2021
Prepare Agreements for Participants	February 10, 2020	February 10, 2021
Participant Enters into Contracts, Purchase Orders, etc.	February 14, 2020	February 14, 2021
Public Notification of Awarded Projects	March 15, 2020	March 15, 2021
Project Installation - Start	April 1, 2020	April 1, 2021
Quarterly Report Due	April 30, 2020	April 30, 2021
Quarterly Report Due	July 30, 2020	July 30, 2021
Monitoring and Oversight of Project Implementation	August 30, 2020	August 30, 2021
Project Installation - Complete	August 30, 2020	August 30, 2021
Participants provide detailed invoices for all claimed project costs, documentaion for emission reduction estimates, required certification documents to support reimbursement	August 30, 2020	August 30, 2021
Final Report Due/EPA Closeout	December 31, 2020	December 31, 2021

ATTACHMENT B - 2019							
ELIGIBLE MITIGATION ACTION MANAGEMENT PLAN INCLUDING DETAILED BUDGET AND IMPLEMENTATION AND EXPENDITURES TIMELINE							
BUDGET							
Project Description	Project Participant	Project Subtotal	Amount Funded by Trust	Amount Funded by EPA	Amount Funded by Project Participant		
Bus Replacement	Allamakee CSD	\$213,522.00	\$29,893.08	\$44,839.62	\$138,789.30		
Bus Replacement	Bellevue CSD	\$93,248.00	\$9,324.80	\$13,987.20	\$69,936.00		
Bus Replacement	Cardinal CSD	\$91,500.00	\$9,000.00	\$13,500.00	\$69,000.00		
Bus Replacement	Center-Point Urbana CSD	\$100,929.00	\$9,700.00	\$14,550.00	\$76,679.00		
Single-Axle Dump Truck Replacement	Henry County	\$144,065.00	\$13,500.00	\$20,250.00	\$110,315.00		
Terminal Truck Replacement	HyVee	\$325,734.18	\$58,632.15	\$87,948.23	\$179,153.80		
Bus Replacement	Independence CSD	\$64,200.00	\$8,834.00	\$13,251.00	\$42,115.00		
Bus Replacement	Interstate 35 CSD	\$258,674.00	\$35,000.00	\$52,500.00	\$171,174.00		
Forklift Replacement	Iowa Steel and Wire Company, Inc.	\$82,610.00	\$14,490.00	\$21,735.00	\$46,385.00		
Replace two Dump Trucks	Lee County	\$314,918.00	\$44,088.52	\$66,132.78	\$204,696.70		
Replacement of Class 8 & Class 6-7 Truck	Lime Rock Springs DBA Pepsi Bottling Co.	\$126,780.50	\$12,517.60	\$18,776.40	\$95,486.50		
Bus Replacement	North Iowa CSD	\$108,313.00	\$15,163.82	\$22,745.73	\$70,403.45		
Bus Replacement	Northwood Kensett CSD	\$110,403.00	\$15,456.42	\$23,184.63	\$71,761.95		
Bus Replacement	Western Dubuque CSD	\$189,396.00	\$18,939.60	\$28,409.40	\$142,047.00		
		Totals	\$2,224,292.68	\$294,539.99	\$441,809.99	\$1,487,942.70	
		Percentage	100.0%	13.2%	19.9%	66.9%	

ATTACHMENT B - 2020							
ELIGIBLE MITIGATION ACTION MANAGEMENT PLAN INCLUDING DETAILED BUDGET AND IMPLEMENTATION AND EXPENDITURES TIMELINE							
BUDGET							
Project Description	Project Participant	Project Subtotal	Amount Funded by Trust	Amount Funded by EPA	Amount Funded by Project Participant		
Vehicle Replacement - Truck (Class 8)	HyVee	\$323,827.00	\$58,288.86	\$87,433.29	\$178,104.85		
Vehicle Replacement - Forklift (4)	Iowa Steel & Wire Company	\$248,404.67	\$44,176.00	\$66,264.00	\$137,964.67		
Vehicle Replacement - Truck (Class 8)	Keokuk County	\$197,461.00	\$27,644.54	\$41,466.81	\$128,349.65		
Vehicle Replacement - Truck (Class 7)	Lime Spring/Pepsi-Cola	\$104,739.50	\$10,473.95	\$15,710.93	\$78,554.62		
Vehicle Replacement - Truck (Class 8)	Mahaska County Secondary Roads Dept	\$186,466.84	\$17,500.00	\$26,250.00	\$142,716.84		
Repower - Tug	Sunflower Enterprises 1	\$217,884.95	\$34,861.59	\$52,292.39	\$130,730.97		
Repower - Tug	Sunflower Enterprises 2	\$1,063,352.77	\$124,759.60	\$187,139.40	\$751,453.77		
		Totals	\$2,342,136.73	\$317,704.54	\$476,556.82	\$1,547,875.37	
		Percentage	100.0%	13.6%	20.3%	66.1%	

ATTACHMENT B**ELIGIBLE MITIGATION ACTION MANAGEMENT PLAN INCLUDING DETAILED BUDGET AND IMPLEMENTATION AND EXPENDITURES TIMELINE****PROJECTED TRUST ALLOCATIONS**

	2018	2019	2020	2021
1. Anticipated Annual Project Funding Request to be paid through the Trust	\$588,733.37	\$3,004,848.29	\$1,480,878.96	\$4,481,248.97
2. Anticipated Annual Cost Share	\$3,447,985.58	\$10,541,018.68	\$5,036,174.04	\$12,141,609.59
3. Anticipated Total Project Funding by Year (line 1 plus line 2)	\$4,036,718.95	\$13,545,866.97	\$6,517,053.00	\$16,622,858.56
4. Cumulative Trustee Payments Made to Date Against Cumulative Approved Beneficiary Allocation	\$0.00	\$588,733.37	\$3,593,581.66	\$5,074,460.62
5. Current Beneficiary Project Funding to be paid through the Trust (line 1)	\$588,733.37	\$3,004,848.29	\$1,480,878.96	\$4,481,248.97
6. Total Funding Allocated to for Beneficiary, inclusive of Current Action by Year (line 4 plus line 5)	\$588,733.37	\$3,593,581.66	\$5,074,460.62	\$9,555,709.59
7. Beneficiary Share of Estimated Funds Remaining in Trust	\$21,201,737.70	\$20,613,004.33	\$17,608,156.04	\$16,127,277.08
8. Net Beneficiary Funds Remaining in Trust, net of cumulative Beneficiary Funding Actions (line 7 minus line 5)	\$20,613,004.33	\$17,608,156.04	\$16,127,277.08	\$11,646,028.11

ATTACHMENT C

DETAILED PLAN FOR REPORTING ON ELIGIBLE MITIGATION ACTION IMPLEMENTATION

Consistent with 5.2.11 of the *Environmental Mitigation Trust Agreement for State Beneficiaries* (Trust), Beneficiaries must submit with their Appendix D-4 request for Eligible Mitigation Action funding a detailed plan for reporting on Eligible Mitigation Action implementation. The Iowa Department of Transportation (DOT) intends to achieve the Beneficiary Reporting Obligations as outlined with 5.3 of the Trust.

The Iowa DOT is devoted to carrying out the reporting requirements of the Trust, according to 5.3, Beneficiary Reporting Obligations, as described below:

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

Furthermore, on top of the semiannual reporting to the Trustee, the Iowa DOT will be issuing quarterly and final reports to the EPA during the project period, as required by the DERA FY 19-20 State Program Programmatic Terms and Conditions of Iowa DOT's U.S. EPA Assistance Amendment. The following is an excerpt from that amendment:

C. Quarterly Reporting and Environmental Results

Quarterly progress reports will be required. Quarterly reports are considered project status reports and will address the progress made achieving the work plan goals. In general, quarterly reports will include summary information on technical progress and expenditures, and planned activities for next quarter. A template for the quarterly report will be available at www.epa.gov/cleandiesel/clean-diesel-state-allocations. Quarterly reports are due according to the following schedule. If a due date falls on a weekend or holiday, the report will be due on the next business day.

April 1 – June 30 Reporting Period: report due date July 30

July 1 – September 30 Reporting Period: report due date October 30

October 1 – December 31 Reporting Period: report due date January 30

January 1 – March 31 Reporting Period: report due date April 30

If a project start date falls within a defined Reporting Period, the recipient must report for that period by the given due date. This quarterly reporting schedule shall be repeated for the duration of the award agreement.

D. Final Report:

The final project report will include all categories of information required for quarterly reporting, including a final, detailed fleet description. The final project report will also include a narrative summary of the project or activity, project results (outputs and outcomes) including final emissions benefit calculations, and the successes and lessons learned for the entire project. To the extent possible, final emission benefit calculations should be based on the actual number and type of technologies, vehicles, equipment and engines implemented under the award and actual vehicle miles traveled, idling and/or operating hours, and fuel use. If actual vehicle miles traveled, idling and/or operating hours, and fuel use are not available, the final report will include a detailed explanation of how these values are derived, as well as any assumptions or default values used, for the purposes of emissions benefit calculations. The final report will also detail the methodologies used for the emission benefit calculation.

For projects involving vehicle/engine/equipment replacement the recipient must provide in the final report: 1) Evidence that the replacement activity is an “early replacement,” and would not have occurred through normal attrition/fleet turnover (i.e. without the financial assistance provided by EPA) within three years of the project period start date. Supporting evidence can include verification that the vehicles or equipment being replaced have useful life left and fleet characterization showing fleet age ranges and average turnover rates per the vehicle or fleet owner’s budget plan, operating plan, standard procedures, or retirement schedule; 2) Evidence of appropriate scrappage (see E.9.4 below); and 3) Specification of the model years and the emission standard levels for PM and NOx, for both the engine being replaced and the new engine.

For projects that take place in an area affected by, or includes vehicles, engines or equipment affected by federal law mandating emissions reductions, the recipient must provide in the final report evidence that emission reductions funded with EPA funds were implemented prior to the effective date of the mandate and/or are in excess of (above and beyond) those required by the applicable mandate.

The final report shall be submitted to the EPA Project Officer within 90 days after the project period end date or termination of the assistance agreement. A template for the final report will be available at www.epa.gov/cleandiesel/clean-diesel-state-allocations.

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

Consistent with 5.2.6 of the *Environmental Mitigation Trust Agreement for State Beneficiaries* (Trust), Beneficiaries must submit for each proposed expenditure exceeding \$25,000, detailed cost estimates from selected or potential vendors.

The Iowa DOT is devoted to carrying out the reporting requirements of the Trust, according to 5.2.6, as detailed in the following page for a breakdown of reimbursements from the awarded applications:

ATTACHMENT D continued

Applicant	Mitigation Sub-Category	New Fuel Type	Number of Vehicles	Total Project Cost	Cost per Vehicle	Funding Request	Funding Awarded	Award per Vehicle
Allamakee Community School District	School or Shuttle Bus (Class 4-7)	Propane	2	\$213,522.00	\$106,761.00	\$37,366.35	\$37,366.35	\$18,683.18
Bellevue Community School District	School or Shuttle Bus (Class 4-7)	Diesel	1	\$93,248.00	\$93,248.00	\$23,312.00	\$23,312.00	\$23,312.00
Cardinal Community School District	School or Shuttle Bus (Class 4-7)	Diesel	1	\$91,500.00	\$91,500.00	\$22,500.00	\$22,500.00	\$22,500.00
Center-Point Urbana Community School District	School or Shuttle Bus (Class 4-7)	Propane	1	\$100,929.00	\$100,929.00	\$24,250.00	\$24,250.00	\$24,250.00
Henry County	Class 8 Local Freight and Drayage Truck	Diesel	1	\$144,065.00	\$144,065.00	\$33,750.00	\$33,750.00	\$33,750.00
HyVee	Class 8 Local Freight and Drayage Truck	All-Electric	1	\$325,734.18	\$325,734.18	\$146,580.38	\$146,580.38	\$146,580.38
Independence Community School District	School or Shuttle Bus (Class 4-7)	Propane	1	\$64,200.00	\$64,200.00	\$22,085.00	\$22,085.00	\$22,085.00
Interstate 35 Community School District	School or Shuttle Bus (Class 4-7)	Propane	2	\$258,674.00	\$129,337.00	\$87,500.00	\$87,500.00	\$43,750.00
Iowa Steel and Wire Company Inc.	Forklift	All-Electric	1	\$82,610.00	\$82,610.00	\$36,225.00	\$36,225.00	\$36,225.00
Lee County	Class 8 Local Freight and Drayage Truck	Propane	2	\$314,918.00	\$157,459.00	\$110,221.30	\$110,221.30	\$55,110.65
Lime Rock Springs DBA Pepsi Bottling Co.	Class 8 Local Freight and Drayage Truck	Diesel	1	\$126,780.50	\$126,780.50	\$31,294.00	\$31,294.00	\$31,294.00
North Iowa Community School District	School or Shuttle Bus (Class 4-7)	Propane	1	\$108,313.00	\$108,313.00	\$37,909.55	\$37,909.55	\$37,909.55
Northwood Kensett Community School District	School or Shuttle Bus (Class 4-7)	Propane	1	\$110,403.00	\$110,403.00	\$38,641.05	\$38,641.05	\$38,641.05
Western Dubuque Community School District	School or Shuttle Bus (Class 4-7)	Diesel	2	\$189,396.00	\$94,698.00	\$47,349.00	\$47,349.00	\$23,674.50
HyVee	Class 8 Local Freight and Drayage Truck	All-Electric	1	\$323,827.00	\$323,827.00	\$145,722.15	\$145,722.15	\$145,722.15
Iowa Steel and Wire Company Inc.	Forklift	All-Electric	4	\$248,404.67	\$62,101.17	\$111,782.10	\$111,782.10	\$27,945.53
Keokuk County	Class 8 Local Freight and Drayage Truck	Propane	1	\$197,461.00	\$197,461.00	\$69,111.35	\$69,111.35	\$69,111.35
Lime Rock Springs DBA Pepsi Bottling Co.	Class 8 Local Freight and Drayage Truck	Diesel	1	\$104,739.50	\$104,739.50	\$26,184.88	\$26,184.88	\$26,184.88
Mahaska County Secondary Roads Dept.	Class 8 Local Freight and Drayage Truck	Diesel	1	\$186,466.84	\$186,466.84	\$43,750.00	\$43,750.00	\$43,750.00
Sunflower Enterprises 1	Ferries/Tugs	Diesel	1	\$217,884.95	\$217,884.95	\$87,153.98	\$87,153.98	\$87,153.98
Sunflower Enterprises 2	Ferries/Tugs	Diesel	1	\$1,063,352.77	\$1,063,352.77	\$311,899.00	\$311,899.00	\$311,899.00

	New Fuel Type	Number of Vehicles	Total Project Cost	Cost per Vehicle	Funding Request	Funding Awarded	Award per Vehicle
TOTAL -- AWARDED APPLICATIONS (47)	All	28	\$4,566,429.41	\$163,086.76	\$1,494,587.09	\$1,494,587.09	\$53,378.11
<i>School or Shuttle Bus (Class 4-7)</i>	<i>Diesel</i>	<i>4</i>	<i>\$374,144.00</i>	<i>\$93,536.00</i>	<i>\$93,161.00</i>	<i>\$93,161.00</i>	<i>\$23,290.25</i>
<i>School or Shuttle Bus (Class 4-7)</i>	<i>Propane</i>	<i>8</i>	<i>\$856,041.00</i>	<i>\$107,005.13</i>	<i>\$247,751.95</i>	<i>\$247,751.95</i>	<i>\$30,968.99</i>
<i>Class 8 Local Freight and Drayage Truck</i>	<i>Diesel</i>	<i>4</i>	<i>\$562,051.84</i>	<i>\$140,512.96</i>	<i>\$134,978.88</i>	<i>\$134,978.88</i>	<i>\$33,744.72</i>
<i>Class 8 Local Freight and Drayage Truck</i>	<i>Propane</i>	<i>3</i>	<i>\$512,379.00</i>	<i>\$170,793.00</i>	<i>\$179,332.65</i>	<i>\$179,332.65</i>	<i>\$59,777.55</i>
<i>Class 8 Local Freight and Drayage Truck</i>	<i>All-Electric</i>	<i>2</i>	<i>\$649,561.18</i>	<i>\$324,780.59</i>	<i>\$292,302.53</i>	<i>\$292,302.53</i>	<i>\$146,151.27</i>
<i>Forklift</i>	<i>All-Electric</i>	<i>5</i>	<i>\$331,014.67</i>	<i>\$66,202.93</i>	<i>\$148,007.10</i>	<i>\$148,007.10</i>	<i>\$29,601.42</i>
<i>Ferries/Tugs</i>	<i>Diesel</i>	<i>2</i>	<i>1,281,237.72</i>	<i>\$640,618.86</i>	<i>399,052.98</i>	<i>399,052.98</i>	<i>199,526.49</i>

2020 Diesel Emissions Reduction Act (DERA) State Grants

Work Plan and Budget Narrative Template

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

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

SUMMARY PAGE

Project Title:

Project Manager and Contact Information

Organization Name: Iowa Department of Transportation

Project Manager: Jared Smith

Mailing Address: 800 Lincoln Way, Ames, Iowa 50010

Phone: 515-239-1713

Fax: N/A

Email: Jared.smith@iowadot.us

Project Budget Overview:

	2019*	2020
EPA Base Allocation	\$319,050	\$335,566
EPA Match Bonus (if applicable)	\$159,525	\$167,783
State or Territory Voluntary Matching Funds (if applicable)	\$319,050	\$335,566
Mandatory Cost-Share	\$	\$
TOTAL Project Cost	\$797,625	\$838,915

*If state participated in 2019

Project Period

October 1, 2019 – September 30, 2021

Summary Statement

The Iowa Department of Transportation (Iowa DOT) will create and implement a process that will allow profit, non-profit, and public entities that own or operate diesel fleets and equipment in all 99 counties to receive funding for diesel emission reduction projects in FY 2020. Projects will need to implement the most cost-effective strategies that result in the greatest emissions reductions consistent with the funding available. The state currently has two websites that detail past DERA State Clean Diesel Program projects. One website is located at www.iowadnr.gov/dera and is maintained by the Iowa Department of Natural Resources. This website lists projects that were completed with the 2016 DERA program. The 2017 and 2018

DERA programs are administered by the Iowa DOT and its website is located here: <https://www.iowadot.gov/dera>. Links are available to help the user navigate from one site to the other.

SCOPE OF WORK

STATE/TERRITORY GOALS AND PRIORITIES:

Mobile sources emit various pollutants including carbon monoxide (CO), carbon dioxide (CO₂), particulate matter (PM), nitrogen oxides (NO_x), volatile organic compounds (VOC), also referred to as hydrocarbons (HC), and various other air toxics. Mobile source emissions are contributors to high fine particulates (PM_{2.5}) background levels and are responsible for over fifty percent (50%) of all NO_x emissions. NO_x emissions are formed primarily due to fuel burning at a high temperature in a vehicle engine. Hydrocarbons result from incomplete fuel combustion and from fuel evaporation. Ground-level ozone, a serious air pollutant is formed by reactions involving hydrocarbons and nitrogen oxides in the presence of sunlight.

While federal standards continue to ensure a reduction of emissions from newer diesel engines; older, dirtier diesel engines still remain in service and continue to emit unrestricted levels of air pollution. Iowa's state regulations are not allowed by state statute to be more stringent than federal standards for vehicles and Iowa does not have a state regulatory program for mobile source emissions. Creating emission reduction programs and funding opportunities can aid in reducing the levels of ozone, PM, and other pollutants in areas of concern and improve air quality in higher population density areas where at-risk populations (elderly, poor health, children) live, work and play. Reducing diesel exhaust is an important strategy in helping lower pollutants across Iowa.

Iowa's air contains a relatively high concentration of fine particles across the state. For the past few years, monitored areas around Iowa have been on the edge of EPA's health standard for fine particulate matter with a diameter less than or equal to 2.5 microns (PM_{2.5}). Add in prevailing winds, centers of industry and concentrated areas of diesel exhaust, some counties are being observed. Currently though, Iowa does not have any designated air quality nonattainment or maintenance areas for transportation-related air pollution that do not meet the National Ambient Air Quality Standards of the 1990 Clean Air Act Amendments. Overall, Iowa's air quality has improved dramatically since 1978, largely due to large facilities across Iowa that have actively worked to reduce emissions by replacing aging equipment with more efficient technology that incorporates the latest emissions controls. While Iowa's trend since 1978 shows substantial benefits in air quality and decreases in air pollutant emissions, Iowa's productivity, populations, and vehicle travel miles increased – all potential sources of pollution. Iowa's gross domestic product is up by 65 percent since 1990, vehicle miles traveled climbed by 38 percent and population increased by 11 percent. To see real-time air quality data, please visit the Iowa Department of Natural Resources Air Quality Bureau webpage on [Monitoring Ambient Air](#).

The primary sectors that make up the diesel fleet in Iowa are aircraft, commercial marine vessels, locomotives, non-road equipment, on-road diesel heavy duty vehicles, and on-road diesel light

duty vehicles. According to EPA's 2014 National Emissions Inventory for Iowa, on-road diesel transportation was the second largest source of mobile pollution in general and the largest source of pollution among all mobile sources for carbon monoxide (CO) at 42%, and ammonia (NH₃) at 68%. Non-road diesel equipment is the largest source of mobile pollution in general. A cursory review of the mobile and stationary source emissions inventory data for nitrogen oxides (NO_x) indicates that NO_x emissions from mobile on-road diesel sources are greater than that from stationary sources. Partnering with public and private organizations to reduce mobile diesel engine emissions will be beneficial to reducing these air pollution emissions.

VEHICLES AND TECHNOLOGIES:

Eligible Entities. Funding for diesel emission reduction projects is available to profit, nonprofit, and public entities that own or operate diesel fleets and equipment in the state of Iowa.

Eligible Diesel Vehicles, Engines, and Equipment. Eligible on-road or non-road vehicles and equipment may include:

- School Buses (of Type A, B, C, and D);
- Medium-duty or Heavy-duty Transit Buses;
- Medium-duty or Heavy-duty Trucks (defined as Class 5 through Class 8);
- Marine Engines;
- Locomotives; and
- Non-road 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)

Eligible Diesel Emission Reduction Strategies

Diesel Engine Retrofit Technologies

- Diesel engine retrofits include pollution control devices installed in the exhaust system, such as diesel oxidation catalysts (DOCs) and diesel particulate filters (DPFs), or systems that include closed crankcase ventilation filtration systems.
- The type(s) of diesel engine retrofits technology being used must be included on the list of EPA verified technologies (www.epa.gov/verified-diesel-tech/verified-technologies-list-clean-diesel) or CARB verified technologies (www.arb.ca.gov/diesel/verdev/vt/cvt.htm) at the time of proposal submission to the EPA. The exhaust control can only be used on the vehicle/engine identified on the list and used only in the manner specified.
- If diesel particulate filters (DPF) is the diesel engine retrofit technology being used, it is highly recommended all vehicles being considered have the exhaust temperature data logged to verify the technology can indeed be placed on the vehicle and each

applicant consult with retrofit suppliers to confirm the vehicle/engine is a good candidate.

- Funding Restrictions: Able to fund up to 100% of the cost (labor and equipment) for an eligible verified diesel engine retrofit technology.

Engine Upgrades and Remanufacture Systems

- An engine upgrade involves the removal of parts on an engine during a rebuild and replacement with parts that cause the engine to represent an engine configuration which is cleaner than the original engine.
- Some locomotives and marine engines can be upgraded through the application of a certified remanufacture system that is used to rebuild the engine to represent a cleaner engine configuration.
- Applications for upgrades should include a discussion of the availability of engine upgrade kits/systems and indicate the pre- and post-project emission standard levels of the engines to demonstrate that the upgrade will result in a significant emission benefit.
- A list of eligible, EPA verified engine upgrade technologies is available at: www.epa.gov/verified-diesel-tech/verified-technologies-list-clean-diesel. Lists of certified remanufacture systems for locomotives and marine engines are available at: www.epa.gov/compliance-and-fuel-economy-data/engine-certification-data, and additional information on remanufacture systems, are available at: www.epa.gov/vehicle-and-engine-certification/remanufacture-systems-category-1-and-2-marine-diesel-engines. Engine upgrades proposed for funding under this category must exist on one of these lists for the specific vehicle/engine application specified in the application at the time of application.
- If selected for funding, the actual engine upgrades used by the grant recipient must be specifically named on EPA's list of certified remanufacture systems or EPA or CARB's Verified Technologies lists at the time of acquisition and used only for the vehicle/engine applications specified on the lists, to be eligible for funding.
- Funding Restrictions: Able to fund up to 40% of the cost (labor and equipment) of an eligible nonroad, locomotive, or marine engine upgrade.

Cleaner Fuels and Additives

- Cleaner fuels and additives are limited to those verified by EPA and/or CARB to achieve emissions reductions when applied to an existing diesel engine.
- A list of eligible, EPA-verified cleaner fuels and additives is available at: www.epa.gov/verified-diesel-tech/verified-technologies-list-clean-diesel; a list of eligible, CARB-verified cleaner fuels and additives is available at: www.arb.ca.gov/diesel/verdev/vt/cvt.htm. The types of fuels and additives (e.g., biodiesel, cetane enhancers) proposed for funding under this category must exist on one of these lists for the specific vehicle/engine application specified in the application and used only for the vehicle/engine applications specified on the list to be eligible for

funding.

- Funding restrictions: Stand-alone cleaner fuel/additive use will not be funded. For new or expanded use, this funding can cover the cost differential between the cleaner fuel/additive and conventional diesel fuel if that cleaner fuel is used in combination, and on the same vehicle, with a new eligible verified engine retrofit or an eligible engine upgrade or an eligible certified engine replacement or an eligible certified vehicle/equipment replacement funded under this Program.

Idle Reduction Technologies

- Idle reduction generally defined as “the installation of a technology or device that reduces unnecessary idling of diesel vehicles or equipment and/or is designed to provide services (such as heat, air conditioning, and/or electricity) to vehicles and equipment that would otherwise require the operation of the main drive or auxiliary engine(s) while the vehicle is temporarily parked or remains stationary.”
- A list of eligible, EPA verified idle reduction technologies is available at: www.epa.gov/verified-diesel-tech/smartway-technology. The type of idle reduction technology proposed for funding must exist on the list at the time of application. The actual idle reduction technologies used must be specifically named on EPA’s SmartWay Verified Technologies list at the time of acquisition and used only for the vehicle/engine applications specified on the list.
- Funding Restrictions:
 - **Locomotive Idle Reduction Technologies:**
 - Able to fund up to 40 percent of the cost (labor and equipment) of eligible verified idle reduction technologies for locomotives.
 - **Electrified Parking Spaces:**
 - Able to fund up to 30 percent of the cost (labor and equipment) of eligible electrified parking space technologies, also known as Truck Stop Electrification, including the cost of modifications, attachments, accessories, or auxiliary apparatus necessary to make the equipment functional.
 - **Marine Shore Power Connection Systems:**
 - Able to fund up to 25 percent of the cost (labor and equipment) of eligible marine shore power connection systems, including the cost of modifications, attachments, accessories, or auxiliary apparatus necessary to make the equipment functional.
 - **Highway Idle Reduction Technologies:**
 - Able to fund up to 100% of the cost (labor and equipment) for verified idle reduction technologies installed on long haul Class 8 trucks and school buses, if combined on the same vehicle with the new installation of one or more of the Verified Engine Retrofit Technologies funded under this Program.
 - Able to fund up to 100% of the cost (labor and equipment) for verified idle reduction technologies installed on long haul Class 8 trucks and

school buses with model year 2006 or older engines that have been previously retrofitted with a verified emission control device. Able to fund up to 25 percent of the cost (labor and equipment) of eligible verified idle reduction technologies on long-haul trucks and school buses.

Aerodynamic Technologies and Verified Low Rolling Resistance Tire

- Long haul Class 8 trucks can be retrofitted with aerodynamic trailer fairings or the fairings can be provided as new equipment.
- Certain tire models can provide a reduction in NOx emissions and fuel savings, relative to the “standard” new tires for long haul Class 8 trucks, when used on all axles.
- A complete list of EPA verified aerodynamic technologies is available at www.epa.gov/verified-diesel-tech/smartway-verified-list-aerodynamic-devices. If selected, the actual tires used must be specifically named on EPA’s SmartWay Verified Technologies list at the time of acquisition and used only for the vehicle/engine applications specified on the list in order to be eligible for funding.
- A list of EPA verified low rolling resistance tires is available at: www.epa.gov/verified-diesel-tech/smartway-verified-list-low-rolling-resistance-lrr-new-and-retread-tire. If selected, the actual tires used must be specifically named on EPA’s SmartWay Verified Technologies list at the time of acquisition and used only for the vehicle/engine applications specified on the list in order to be eligible for funding.
- Funding Restrictions: Able to fund up to 100% of cost (labor and equipment) for verified aerodynamic technologies or low rolling resistance tires installed on long haul Class 8 trucks, if the technology is combined on the same vehicle with the new installation of one or more of the Verified Engine Retrofit Technologies funded under this program. Stand- alone aerodynamic technologies or low rolling resistance tires will not be funded. Note: Low rolling resistance tires are not eligible for funding if they have previously been installed on the truck.

Engine Replacement

- An engine replacement includes replacing an existing engine with a newer, cleaner engine that is certified to a more stringent set of engine emission standards. Engine replacements include:
 - Diesel engine replacement with an engine certified for use with diesel or an alternative fuel (e.g., gasoline, CNG, propane);
 - Diesel engine replacement with a zero tailpipe emissions power source (grid, battery or fuel cell); and/or,
 - Diesel engine replacement with an electric generator(s) (genset).
- The eligible cost of engine replacement includes the cost of modifications, attachments, accessories, or auxiliary apparatus necessary to make the equipment functional, including related labor expenses. Charges for equipment and parts on engine replacement projects are only eligible for funding if they are included in the certified engine configuration and/or are required to ensure

the effective installation and functioning of the new technology but are not part of typical vehicle or equipment maintenance or repair.

- Funding Restrictions:
 - **Locomotive, Marine, and Nonroad Diesel Vehicles and Equipment:**
 - Able to fund up to 40% of the cost (labor and equipment) of replacing a diesel engine with a 2019 model year or newer engine certified to EPA emission standards. Previous engine model year engines may be used if the engine is certified to the same emission standards applicable to the engine in EMY 2019. Nonroad, locomotive, and marine engine emission standards are on EPA's website at: www.epa.gov/emissionstandards-reference-guide/epa-emission-standards-nonroad-engines-and-vehicles.
 - Able to fund up to 60% of the cost (labor and equipment) of replacing a diesel engine with a zero tailpipe emissions power source.
 - **Highway Diesel Vehicles:**
 - Able to fund up to 40% of the cost (labor and equipment) of replacing a diesel engine with a 2016 model year or newer engine certified to EPA emission standards. Highway engine emission standards are on EPA's website at: www.epa.gov/emission-standards-reference-guide/epa-emission-standards-heavy-duty-highway-engines-and-vehicles.
 - Able to fund up to 50% of the cost (labor and equipment) of replacing a diesel engine with a 2016 model year or newer engine that is certified to CARB's Optional Low-NO_x Standards of 0.1 g/bhp-hr, 0.05 g/bhp-hr, or 0.02 g/bhp-hr NO_x. Engines certified to CARB's Optional Low NO_x Standards may be found by searching CARB's Executive Orders for Heavy-duty Engines and Vehicles, found at: www.arb.ca.gov/msprog/onroad/cert/cert.php.
 - Able to fund up to 60% of the cost (labor and equipment) of replacing a diesel engine with a zero tailpipe emissions power source.

Vehicle and Equipment Replacements

- Non-road and highway diesel vehicles and equipment, locomotives, and marine vessels can be replaced under this program with newer, cleaner vehicles and equipment that operate on diesel or alternative fuels and use engines certified by EPA, and if applicable, CARB to meet a more stringent set of engine emission standards.
- The eligible cost of a vehicle/equipment replacement includes the cost of modifications, attachments, accessories, or auxiliary apparatus necessary to make the equipment functional.
- Funding Restrictions:
 - **Locomotives, Marine Vessels and Nonroad Diesel Vehicles and Equipment:**
 - Able to fund up to 25% of the cost of a replacement locomotive, marine vessel, or nonroad vehicle or piece of equipment powered by a 2019 model year or newer engine certified to EPA emission standards. Previous

engine model year engines may be used if the engine is certified to the same emission standards applicable to EMY 2019. Nonroad, locomotive and marine engine emission standards are on EPA's website at:

www.epa.gov/emission-standards-reference-guide/epa-emissionstandards-nonroad-engines-and-vehicles.

- Able to fund up to 45% of the cost of a new, zero tailpipe emissions locomotive, marine vessel, or nonroad vehicle or piece of equipment.
- o **Highway Diesel Vehicles and Buses (other than Drayage):**
 - Able to fund up to 25% of the cost of a replacement vehicle powered by a 2016 model year or newer engine certified to EPA emission standards. Highway engine emission standards are on EPA's website at: www.epa.gov/emission-standardsreference-guide/epa-emissionstandards-heavy-duty-highway-engines-and-vehicles.
 - Able to fund up to 35% of the cost of a replacement vehicle powered by a 2016 model year or newer engine certified to meet CARB's Optional Low-NO_x Standards of 0.1 g/bhp-hr, 0.05 g/bhp-hr, or 0.02 g/bhp-hr NO_x. Engines certified to CARB's Optional Low NO_x Standards may be found by searching CARB's Executive Orders for Heavy-duty Engines and Vehicles, found at: www.arb.ca.gov/msprog/onroad/cert/cert.php.
 - Able to fund up to 45% of the cost of a new, zero tailpipe emissions replacement vehicle.
- o **Drayage Vehicles:**
 - Able to fund up to 50% of the cost of a replacement drayage truck powered by a 2013 model year or newer certified engine. (A "Drayage Truck" means any Class 8 (GVWR greater than 33,000) highway vehicle operating on or transgressing through port or intermodal rail yard property for the purpose of loading, unloading or transporting cargo, such as containerized, bulk or break-bulk goods.)
 - Drayage Operating Guidelines: If an application for the replacement of drayage trucks is selected for funding, the grant recipient will be required to establish guidelines to ensure that any existing truck replaced with grant funds has a history of operating on a frequent basis over the prior year as a drayage truck, and to ensure any new truck purchased with grant funds is operated in a manner consistent with the definition of a drayage truck, as defined above. For an example of sample guidelines, see <https://www.epa.gov/cleandiesel/clean-diesel-state-forms-and-documents>.
 - Required/Scheduled Maintenance: EPA will fund the required/scheduled vehicle maintenance, as specified in the owner's manual, which is necessary to meet the warranty requirements for diesel particulate filters installed on drayage trucks. Funding for required maintenance is available for the duration of the project period.

Clean Alternative Fuel Conversions:

- Aftermarket clean alternative fuel conversions involve altering the conventional, original equipment manufacturer (OEM) highway diesel vehicles and engines to operate on alternative fuels such as propane or natural gas.
- Conversion kits must be on EPA's lists of "Certified Conversion Systems for New Vehicles and Engines" and "Conversion Systems for Intermediate-Age Vehicles and Engines", available at www.epa.gov/vehicle-and-engine-certification/lists-epa-compliantalternative-fuel-conversion-systems; CARB's list of "Approved Alternate Fuel Retrofit Systems" are available at: www.arb.ca.gov/msprog/aftermkt/altfuel/altfuel.htm.
- To be eligible for funding, conversion systems for engine model years 1995-2006 must achieve at least a 30% NO_x reduction and a 10% PM reduction from the applicable certified emission standards of the original engine. Conversion systems for engine model years 2007-2009 must achieve at least a 20% NO_x reduction with no increase in PM from the applicable certified emission standards of the original engine.
- Funding Restrictions: Able to fund up to 40% of the cost (labor and equipment) of an eligible certified or compliant clean alternative fuel conversion.

ROLES AND RESPONSIBILITIES:

With the effort to reduce diesel emissions both inside and outside the vehicles, the Iowa DOT will create a competitive grant process, select eligible entities as program beneficiaries and ensure the implementation of the most cost-effective strategies that result in the greatest emissions reductions consistent with the funding available.

Program beneficiaries cannot be identified at this time as eligible entities have not been selected. Partners may include profit, nonprofit, and public entities that own or operate diesel fleets and equipment in the state of Iowa. Each program beneficiary will assign a specific contact who will be responsible for determining the vehicles that will be included, the appropriate strategy for diesel emissions reduction, the technologies to use, etc. The specific program beneficiary contact will manage the project activities and logistics to ensure timely, appropriate completion of the project and general reports and updates to the Iowa DOT.

The Iowa DOT will be responsible for selecting eligible entities, developing and managing all written agreements, handling oversight of the entire federal grant award, and submitting all quarterly and final reports.

Project Description. Projects will need to implement the most cost-effective strategies that result in the greatest emissions reductions consistent with the funding available. Interested entities will be required to submit an application identifying the strategy that makes the most sense for their diesel engine operations. The submitted application must at a minimum:

- Identify the type of diesel reduction strategy.
- Identify the type of vehicle or equipment. Information will need to include (but is not

- limited to) year, make/model, VIN #, and useful life;
- Give priority to the most used and oldest, highest emitting vehicles or equipment to optimize emissions reductions;
- Give priority to vehicles or equipment that generally serve areas with higher population density and a higher percentage of at-risk populations; and
- Implement the most cost-effective strategies that result in the greatest emissions reductions consistent with the funding available.

The Iowa DOT will use established evaluation criteria and will have the discretion to fund only the most effective components of the applications selected for reimbursement. Successful applicants will be required to sign a written agreement with the Iowa DOT, purchase and install the technology/equipment per the award agreement and be reimbursed for eligible expenses.

Specific Requirements. Eligible entities must understand and be willing to agree with all requirements as they relate to specifics of the diesel reduction strategies, early attrition policies, and disablement. A guidebook is available on the Iowa DOT's website that outlines the program (https://iowadot.gov/dera/pdfs/DERA_Grant_Program_Info_Guide.pdf) and will be updated as needed.

Evaluation Criteria. The evaluation criteria will include items such as:

- Number of registered Volkswagen vehicles in the county of the project (due to Iowa's state match coming from the DERA Option of the Volkswagen Settlement);
- Mobile source air pollution in areas of concern;
- Diesel Emissions Quantifier emission reduction estimates for NO_x, PM_{2.5}, VOC, and CO;
- Impacts of diesel emissions on sensitive populations related to human health (rate of asthma and rate of heart disease), environment (ozone), global climate (CO₂) and areas of vulnerable populations;
- Priority county locations as noted in the 2020 Priority County List (air quality concerns); and,
- Cost effectiveness of NO_x emission reduction (dollars per amount of NO_x emissions reduced).

Funding and Match Requirements. Participating program beneficiaries will be eligible to receive a one-time, lump-sum reimbursement for up to the allowable cost share of eligible equipment and installation costs of their projects. The Iowa DOT will reimburse program beneficiaries, dependent on their project, up to the percentages outlined in the DERA Program Guide.

A participant support cost will not be considered incurred until the funded technology and/or equipment has been received and accepted by the organization. Request for reimbursement shall include documentation to show that the technology/equipment has been received and installed, that disablement has occurred (if necessary), that all written agreement requirements have been met, and that the expenses have been incurred and paid by the participating program beneficiary. A written agreement between the Iowa DOT and the program beneficiary will include the following at a minimum:

- A description of the activities that will be eligible for reimbursement and supported by rebates, subsidies, or other payments;
- Identification of which party will have the title to the equipment (if any) purchased with a rebate or subsidy;
- Specified maximum amount eligible to be paid from the rebate, subsidy, or payment; and
- A description of the source documentation requirements to ensure proper accounting of EPA funds.

Matching funds are required for all projects that are not eligible for 100 percent reimbursement. Required matches must be monetary. Participating organizations may provide additional voluntary match, and if used, must enhance and expand the proposed project.

TIMELINE AND MILESTONES:

Major Milestones	Completion Dates
Deadline to submit work plan and budget narrative to EPA region	April 15, 2020
Deadline to submit application on Grants.gov	May 14, 2020
Request for grant applications from participating organizations	July 1 – August 31, 2020
Iowa DOT evaluates applications	September 2020
Project period for FY 2020 begins	October 1, 2020
Prepare agreement(s) between Iowa DOT and participating organization	October 1 – 15, 2020
Participating organization project begins	November 1, 2020
Public notification of projects on Iowa DOT's DERA website	60 days from agreement execution
Quarterly reporting due to EPA	Ongoing
Deadline for FY 2020 projects to be completed	September 30, 2021
Final reporting due to EPA	December 31, 2021

DERA PROGRAMMATIC PRIORITIES:

Priority Location. Areas in proximity to major transport routes or terminals, and areas which generate large amounts of truck traffic or school bus depots/yards (e.g. parking areas and/or garages where school buses are stored and maintained, or where school buses queue) tend to be locations where a disproportionate quantity of air pollution from diesel fleets occurs. Projects to decrease the diesel emissions within one or more of these seven counties listed in the 2020 Priority County List would also help to alleviate the disproportionate quantity of air pollution.

Public Health Benefits. Because Iowa has historically not had air pollution concerns, the general population thinks of air quality in terms of odors and visibility--not its impact on people's health. Ground-level ozone causes health problems such as difficulty breathing, lung damage, and reduced cardiovascular functioning. Scientific studies have linked fine particle matter with a series of significant health problems such as respiratory related hospital admissions and emergency room visits, aggravated asthma, and acute respiratory symptoms - including aggravated, coughing and difficult or painful breathing.

Reducing NOx, HC, PM2.5, and other pollutants and exposure to these pollutants through diesel emission reductions can help improve health benefits. It could also potentially decrease the cost of health care for asthmatics and high-risk populations, such as children and the elderly.

Cost-effectiveness. Actual cost effectiveness will in part be dependent on the specific strategies, manufacturer, technologies and applications involved in the program. Priority will be given to the oldest, highest emitting vehicles and equipment to optimize emissions reductions and associated cost-effectiveness of the reductions.

Verified Technologies. For any diesel engine operated vehicles being selected for retrofit technologies, the participating organizations will be required to use technologies from a list of EPA verified technologies (<https://www.epa.gov/verified-diesel-tech/verified-technologies-list-clean-diesel>) or CARB verified technologies (<http://www.arb.ca.gov/diesel/verdev/vt/cvt.htm>).

Replacement vehicles will not be used to increase the size of fleets and must be early attrition projects. The new vehicle or equipment will be required to replace that of the same type and similar gross vehicle weight rating or horsepower and perform the same function. Replaced engines, vehicles, or equipment will be permanently disabled and documentation showing the disablement will be required. All new engines will be certified to comply with EPA emission standards in place at the time of certification.

Useful life of retrofits and engines. Previous projects undertaken by the Iowa Department of Natural Resources Air Quality Bureau have shown that technologies such as diesel oxidation catalysts (DOC) and diesel particulate filters (DPFs) have a useful life of five to ten years. The Iowa DOT will evaluate submitted plans to determine the useful life of engine configuration or verified technologies. All attempts to maximize the life of the vehicles/equipment will be made.

Conserve diesel fuel. Most retrofit technologies, such as DOCs and DPFs, require the use of ultra- low sulfur diesel fuel. Although some technologies (DOCs) can operate with levels of 500 ppm, the majority of retrofits are most effective when the sulfur content is 15 ppm or less. Vehicle replacement alone can provide benefits in fuel efficiency and may provide additional savings in fuel costs.

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

Linkage to EPA Strategic Plan. By taking a statewide approach with this program, the projects selected by the Iowa DOT will reduce local and regional air pollution. Selected diesel emission reduction strategies and technologies will decrease the amount of PM_{2.5}, oxides of nitrogen (NOX), carbon dioxide (CO₂), volatile organic compounds (VOCs) and hazardous air pollutants (HAPs) emitted from mobile diesel sources.

Organizations participating in the program are making an effort to implement voluntary emissions reductions to their vehicles and equipment. Taking voluntary measures to decrease diesel emissions shows citizens in Iowa that the organizations are serious about decreasing pollution and protecting high-risk populations.

Outputs. Specific outputs cannot be determined at this time since the plan for what strategies and vehicles are intended to be the focus of emissions reductions will not be known until the Iowa DOT has selected one or more project proposals.

During project execution, the Iowa DOT may report on the following outputs, but are not limited to:

- number of replaced or retrofitted engines/vehicles/equipment; and/or
- hours of idling reduced.
- engaging affected communities with respect to the design and performance of the project,
- the project's inclusion in a broader-based environmental or air quality plan;
- the implementation of contract specifications requiring the use of cleaner vehicles and equipment;
- a documented commitment to continue to identify and address air quality issues in the affected community;
- a publicly available community engagement plan for meaningful engagement of the affected communities regarding either the environmental and/or other issues that the project is intended to address;
- adoption of an idle reduction policy;
- providing support to clean diesel coalitions by sharing information, working with interested fleets, and addressing specific geographic needs;
- number of subawards; and/or
- dissemination of project/technology information via list serves, websites, journals and outreach events.

[Please delete all text that is bracketed and in italics.]

Progress reports and a final report will also be outputs.

Outcomes. Through this effort and other efforts already in progress, the Iowa DOT expects to see improved ambient air quality in the state. Continued attainment of EPA health standards will reflect this, although other factors beyond diesel emission reductions will also contribute to this measurement. Continued attention to voluntary efforts that will reduce air pollution will not only help keep Iowa's air quality in attainment but will also help reduce the health risks of targeted "high-risk" populations.

EPA's Diesel Emissions Quantifier will be used to help estimate some of these expected outputs from the projects to be funded. Expected and potential outcomes may include, but are not limited to:

- tons of pollution reduced over the lifetime of the vehicles/engines/equipment, specifically:
 - fine particulate matter (PM_{2.5}),
 - nitrogen oxides (NO_x),
 - carbon monoxide (CO) and carbon dioxide (CO₂), and/or
 - volatile organic compounds (VOCs).
- tons of pollution reduced annually;
- lifetime total project cost effectiveness for NO_x and PM_{2.5};
- lifetime capital cost effectiveness for NO_x and PM_{2.5};
- net reduction in gallons of diesel fuel used;
- benefits to the communities affected by the project, including improvements to human health and the environment, the local economy, social conditions, and the welfare of residents in such communities
- community engagement and partnership;
- improved ambient air quality;
- health benefits achieved;
- changes in driver behavior regarding idling practices;
- an increased understanding of the environmental or economic effectiveness of the implemented technology;
- increased public awareness of project and results;
- widespread adoption of the implemented technology;
- demonstration and deployment of zero and near-zero emission vehicles and engines; and/or
- emissions reductions along freight transportation corridors.

[Please delete all text that is bracketed and in italics.]

SUSTAINABILITY OF THE PROGRAM:

The Iowa DOT will identify the program beneficiaries selected for the 2020 DERA Program on their website within sixty days of a signed agreement. Announcements on the Iowa DOT website, as well as social media will serve as the required public notification. Information will include the amount of funding and a description of the vehicles and technologies being funded. The Iowa DOT will also include diesel exhaust reduction efforts in communications with the governor's office and state legislators.

Program beneficiaries will be asked to publicize the project and the need to reduce diesel emissions on their websites (and in other publications if they choose) to help increase the awareness among their stakeholders. Opportunities such as conferences, publications, and meetings provide an additional outreach mechanism for the Iowa DOT to communicate with their stakeholders and citizens.

[Please delete all text that is bracketed and in italics.]

BUDGET NARRATIVE

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

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

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

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

2020 Itemized Project Budget

Budget Category	EPA Allocation	Mandatory Cost-Share	Voluntary Match (if applicable)		Line Total
			VW Mitigation Trust Funds	Other Funds	
1. Personnel					
2. Fringe Benefits					
3. Travel					
4. Equipment					
5. Supplies					
6. Contractual					
7. Other	\$503,349		\$335,566		\$838,915
8. Total Direct Charges (sum 1-7)	\$503,349		\$335,566		\$838,915
9. Indirect Charges					
10. Total (Indirect + Direct)	\$503,349		\$335,566		\$838,915
11. Program Income					

Explanation of Budget Framework

- **Personnel** – None
- **Fringe Benefits** - None
- **Travel** - None
- **Supplies** - None
- **Equipment** - None
- **Contractual** - None
- **Other** – Funding will be provided to program beneficiaries to be used only for the purchase and installation of diesel emissions reduction strategy technologies (i.e. retrofit equipment, vehicle replacement, etc.). All program beneficiaries will be required to enter into a written agreement with the Iowa DOT.
- **Indirect Charges** – None

[Please delete all text that is bracketed and in italics.]

- **Administrative Costs Expense Cap**

Iowa DOT has chosen to not use any of the DERA monies to cover administrative costs as identified in OMB Circular A-87 Appendix B (e.g. personnel, benefits, travel, supplies).

Matching Funds and Cost-Share Funds

Iowa DOT has chosen to use the Volkswagen Environmental Mitigation Trust Fund monies to match EPA's allocation. For all selected projects that require a cost-share (i.e. vehicle replacement), the project program beneficiary awarded funding will be responsible for meeting the minimum cost-share. Requirements for the cost-share will be identified in the written agreement between the project partner and the Iowa DOT.

Funding Partnerships

The Iowa DOT intends to provide participant support costs to program beneficiaries with eligible projects. Iowa DOT will grant one-time, lump-sum payments to fleet owners for the purchase and installation of eligible emission control technologies and vehicle replacements.

Eligible program beneficiaries will only receive reimbursement for up to the allowable cost-share of eligible equipment and installation costs. A written agreement between the Iowa DOT and the program beneficiary will include the following:

- A description of the activities that will be eligible for reimbursement;
- Identification of which party will have the title to the equipment purchased (if any);
- A listing of the maximum amount to be paid from the grant; and
- a description of the source documentation requirements to ensure proper accounting of EPA funds.

[Please delete all text that is bracketed and in italics.]