

APPENDIX D-4
Beneficiary Eligible Mitigation Action Certification

State of Nebraska
Funding Request #4

BENEFICIARY ELIGIBLE MITIGATION ACTION CERTIFICATION

Beneficiary State of Nebraska

Lead Agency Authorized to Act on Behalf of the Beneficiary Nebraska Department of Environmental Quality
(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:	Nebraska 2018 DERA Program Projects
Beneficiary's Project ID:	VWT2019-04
Funding Request No.	<i>(sequential)</i> 4
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 type="checkbox"/> Appendix D-2 item (specify): _____
Action Type	<input checked="" type="checkbox"/> Item 10 - DERA Option (5.2.12) (specify and attach DERA Proposal): Attach. E
Explanation of how funding request fits into Beneficiary's Mitigation Plan (5.2.1):	
See attached SUMMARY Supplement (page 5).	
Detailed Description of Mitigation Action Item Including Community and Air Quality Benefits (5.2.2):	
See attached SUMMARY Supplement (page 5).	
Estimate of Anticipated NOx Reductions (5.2.3):	
See attached SUMMARY Supplement (page 6).	
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):	
Nebraska Auditor of Public Accounts	
Describe how the Beneficiary will make documentation publicly available (5.2.7.2).	
See attached SUMMARY Supplement (page 6).	
Describe any cost share requirement to be placed on each NOx source proposed to be mitigated (5.2.8).	
See attached SUMMARY Supplement (page 6).	
Describe how the Beneficiary complied with subparagraph 4.2.8, related to notice to U.S. Government Agencies (5.2.9).	
On 26 February 2018 NDEQ sent e-mail notices of availability of funds to representatives of the U.S. Department of Interior and the U.S. Department of Agriculture listed in subparagraph 4.2.8 of the Trust Agreement.	

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).

See attached SUMMARY Supplement (page 6).

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 Nebraska, 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 15, 2019

Kara L. Valentine
Deputy Director, Air & Land

[NAME]

[TITLE]

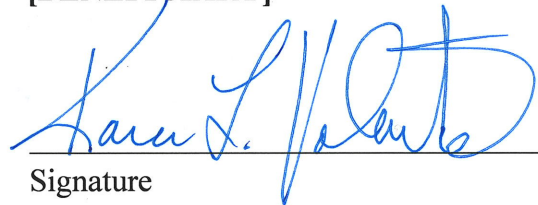
Nebraska Department of Environmental Quality

[LEAD AGENCY]

for

State of Nebraska

[BENEFICIARY]


Signature

SUMMARY Supplement

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

Nebraska’s Beneficiary Mitigation Plan posted in January 2018 proposed to use 25% of Nebraska’s initial allocation, or approximately \$3 million, to supplement federal funding of the Nebraska Clean Diesel Program under the U.S. Environmental Protection Agency (EPA) DERA State Grant Program, consistent with Eligible Mitigation Action 10 (DERA Option) of the State Trust Agreement. This request will provide funding for the state’s 2018 Clean Diesel Rebate Program under DERA.

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

Nebraska DEQ elected to fund DERA rebates to individual Clean Diesel Rebate recipients using either federal funds or voluntary state matching funds obtained through the Volkswagen Diesel Emission Environmental Mitigation Trust for States (VW State Trust). The subprojects in this funding request are those DERA rebates being funded entirely by the voluntary state matching funds from the VW State Trust.

Two types of DERA rebate projects will be funded through this request:

1) Urban Diesel Refuse Truck Replacements

Under DERA Eligible Diesel Emission Reduction Solution 7 (Vehicle and Equipment Replacements), NDEQ is providing rebates for replacement of eligible diesel refuse trucks by a:

- a) New diesel-fueled truck certified to meet EPA emissions standards (25% reimbursement up to a maximum set by NDEQ of \$70,000).
- b) New Compressed Natural Gas (CNG)-fueled truck certified to meet California Air Resources Board Optional Low-NOx Standards (35% reimbursement up to a maximum set by NDEQ of \$110,000).

Two diesel refuse trucks will be replaced under this funding request. Recipients are listed in Attachment B.

2) Non-Road Agricultural Diesel Engine Replacements with All-Electric Equipment

Under DERA Eligible Diesel Emission Reduction Solution 6a (Certified Engine Replacement; Locomotive, Marine, and Nonroad Diesel Vehicles and Equipment), NDEQ is providing rebates for:

- a) Replacement of a diesel engine powering a surface agricultural irrigation pump by an electric motor
- b) Replacement of a diesel engine and generator supplying power to a submersible agricultural irrigation pump by direct connection of the subsurface pump to the electric grid.

Following the DERA Program Guide, NDEQ is providing reimbursement of 60% of the cost of equipment and labor for these replacement projects, including the cost of extending electrical service to the well site. After examining costs for such projects funded during 2018, NDEQ set a maximum rebate amount of \$20,000 for these projects.

Because of the large number of applications received, NDEQ chose to fund a larger number of irrigation engine projects than anticipated in the 2018 DERA Workplan by providing a larger Voluntary State Match using VW State Trust funds. A total of 39 diesel irrigation engine replacement projects are expected to be funded under this request. Recipients are listed in Attachment B.

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During residential trash pickup, diesel refuse trucks operate at low speed with frequent stops with the engine idling. Diesel engine emissions controls are not very effective under these conditions, so the trucks expose nearby residents to the harmful effects of these emissions. Replacement of two diesel refuse trucks with new, cleaner vehicles will reduce emissions and reduce adverse health effects due to exposure to these pollutants. Replacement of 39 diesel irrigation engines with all-electric equipment will completely remove the diesel pollutants currently being emitted by these engines.

Estimate of Anticipated NOx Reductions (5.2.3):

Nebraska DEQ estimated diesel emission reductions using the EPA on-line Diesel Emissions Quantifier. We calculated reductions for 1) each refuse truck applicant using the provided engine model year, annual mileage, fuel use, replacement fuel, and estimated remaining lifetime of the current truck; and 2) each diesel irrigation engine applicant using the provided annual operating hours, fuel use, and estimated remaining lifetime of the diesel engine.

We estimate that the 39 diesel irrigation engine and 2 diesel refuse truck replacement projects funded by this request will result in lifetime reductions in NOx emissions of 16.9 tons and reduction in particulate emissions of 1.2 tons.

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

NDEQ maintains a series of webpages describing the Nebraska Clean Diesel Program, with the main page at <http://deq.ne.gov/NDEQProg.nsf/OnWeb/NCDGP>. Separate pages are provided for applicants and rebate recipients for each type of project under the program.

All application materials, reimbursement requests, and required documentation submitted by applicants and rebate recipients for the Clean Diesel Program are archived in Nebraska's Enterprise Content Management (ECM) system and are available to the public through a Public Records Search web page accessed through the NDEQ website. Also see Attachment C.

Describe any cost-share requirement to be placed on each NOx source proposed to be mitigated (5.2.8):

Diesel Refuse Truck rebate recipients are subject to a minimum 75% cost-share for the purchase of a new diesel truck or 65% cost-share for purchase of a new CNG-fueled truck meeting stricter emissions standards. Recipients of Diesel Irrigation Engine Rebates are subject to a minimum 40% cost-share for the purchase and installation of new all-electric equipment. Cost-share percentages for individual projects may exceed these minimum percentages if the dollar amount corresponding to the maximum reimbursement percentage exceeds the rebate limit imposed by NDEQ based on typical project costs. See Attachment B for listings of recipients, expected rebates, and expected cost-share amounts.

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)

Residents of urban areas in eastern Nebraska have historically borne a disproportionate share of the adverse effects of NOx emissions. The replacement of diesel refuse trucks that operate in the metropolitan areas of Omaha and Lincoln will directly reduce NOx emissions and their impact on the health of residents in these communities.

Diesel irrigation engines operate during warmer months of the year when NOx emissions also act as a chemical feedstock for the formation of low-level ozone. This transformation occurs over a period of hours as pollutants are transported in the atmosphere. The replacement of 39 rural diesel irrigation engines that are frequently upwind of the urban areas of eastern Nebraska will eliminate their NOx emissions and should reduce the production of ozone that would otherwise impact the downwind urban areas.

ATTACHMENT B

PROJECT MANAGEMENT PLAN INCLUDING DETAILED BUDGET AND IMPLEMENTATION AND EXPENDITURES TIMELINE (5.2.4)

**PROJECT SCHEDULE AND TIMELINE,
2018 NEBRASKA CLEAN DIESEL REBATE PROGRAM**

Project Milestone	Date
NDEQ posts program information and application materials on agency website; e-mail notification to Natural Resource Districts, electric utilities, and waste management associations, and landfills.	1 October 2018
Round 1 deadline for submission of applications	15 December 2018
Selection and notification of Round 1 rebate recipients	20 December 2018
Finalization of agreements with Round 1 rebate recipients	February-March 2019
Round 2 deadline for submission of applications	22 Feb. & 7 Mar. 2019
Selection and notification of Round 2 rebate recipients	February-March 2019
Finalization of agreements with Round 2 rebate recipients	March-April 2019
Submission of Project Certification and Funding Direction	April 2019
Trustee Allocates Advanced Funding to NDEQ	June-July 2019
NDEQ reviews reimbursement requests from recipients and provides payment for projects as completed	2019 Qtr 3-4 2020 Qtr 1-2
NDEQ reports on project progress	July 2019, Jan. 2020
NDEQ reports project completion	July 2020

EXPECTED COSTS OF INDIVIDUAL PROJECTS FUNDED THROUGH THIS REQUEST

Two types of DERA rebate projects will be funded through this request:

1) Urban Diesel Refuse Truck Replacements

Applicants were required to submit price quotes for specific new replacement trucks with their applications. Recipients of the refuse truck replacement rebates that will be funded by this request are:

Rebate Recipient	Location	Rebate	Recipient Cost-Share	Project Cost
Gretna Sanitation 1 CNG-fueled replacement truck	Gretna	\$ 110,000	\$ 224,653	\$ 334,653
Niederhaus Brothers Refuse, Inc. 1 diesel replacement truck	Lincoln	\$ 56,288	\$ 168,862	\$ 225,150
TOTAL		\$ 166,288	\$ 393,515	\$ 559,803

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2) Non-Road Agricultural Diesel Engine Replacements with All-Electric Equipment

Applications for this program were required to include price quotes for the new equipment, electrical contracting work, and utility service line extension. The expected rebate recipients are listed below.

Rebate Recipient	Nebraska County	Rebate Amount	Recipient Cost-Share	Total Project Cost
4A Farms LLC	Hamilton	\$ 20,000.00	\$ 26,121.60	\$ 46,121.60
4P Farms	Polk	\$ 20,000.00	\$ 22,967.00	\$ 42,967.00
Allen, Loren	Holt	\$ 9,750.04	\$ 6,500.02	\$ 16,250.06
Anson Farms Inc	Antelope	\$ 20,000.00	\$ 30,368.25	\$ 50,368.25
Beelaert, Robert	Holt	\$ 10,249.95	\$ 6,833.30	\$ 17,083.25
Carpenter Farms Inc.	Antelope	\$ 12,101.83	\$ 8,067.88	\$ 20,169.71
Carpenter, Garrett	Antelope	\$ 13,484.00	\$ 8,987.88	\$ 22,471.88
Central Agency Farms % Austin Co	Chase	\$ 20,000.00	\$ 14,716.73	\$ 34,716.73
Cheney Farm	Antelope	\$ 9,883.76	\$ 6,589.17	\$ 16,472.93
Collins, Rick	Hamilton	\$ 7,020.00	\$ 4,681.66	\$ 11,701.66
Creutzberg, Mark	Polk	\$ 7,550.00	\$ 5,033.29	\$ 12,583.29
Danielski Harvesting & Farming LLC	Holt	\$ 17,772.08	\$ 11,848.05	\$ 29,620.13
Dickerson, John	Holt	\$ 9,080.40	\$ 6,054.27	\$ 15,134.67
Dougherty-Ruther Farm	Holt	\$ 11,150.48	\$ 7,433.65	\$ 18,584.13
Drayton, Terry	Antelope	\$ 10,485.10	\$ 6,990.06	\$ 17,475.16
Dunn, William	Blaine	\$ 10,611.60	\$ 7,074.40	\$ 17,686.00
H Corporation	Holt	\$ 20,000.00	\$ 26,076.29	\$ 46,076.29
JSK LLC	Boone	\$ 19,806.27	\$ 13,204.18	\$ 33,010.45
Kelly, Barry	Holt	\$ 9,817.76	\$ 6,545.17	\$ 16,362.93
Koenig, Kevin J.	Holt	\$ 10,965.38	\$ 7,310.25	\$ 18,275.63
Lee, Deloris A.	Perkins	\$ 20,000.00	\$ 8,967.00	\$ 48,967.00
LT Farms, Inc.	Holt	\$ 8,179.88	\$ 5,453.25	\$ 13,633.13
Mueller Family Trust	Jefferson	\$ 15,131.40	\$ 10,087.60	\$ 25,219.00
O & W Dairy Farm Inc	Antelope	\$ 18,592.61	\$ 12,395.08	\$ 30,987.69
Oberhauser, Karen	Platte	\$ 18,247.96	\$ 12,210.31	\$ 30,458.27
OBrien, Dale	Hayes	\$ 20,000.00	\$ 41,045.56	\$ 61,045.56
Oertwich, Douglas	Stanton	\$ 20,000.00	\$ 40,585.04	\$ 60,585.04
Pearson, Erik	Jefferson	\$ 13,446.88	\$ 8,964.58	\$ 22,411.46
Peterson, Mick	Custer	\$ 20,000.00	\$ 20,150.73	\$ 40,150.73
Pfeifer, Dean John	Madison	\$ 12,629.41	\$ 8,419.61	\$ 21,049.02
Probst, Lyle	Gage	\$ 17,232.00	\$ 11,432.80	\$ 28,720.00
Riley, James	Buffalo	\$ 17,149.20	\$ 10,591.75	\$ 28,582.00
Schmidt Brothers Farms	Madison	\$ 15,887.63	\$ 11,620.98	\$ 26,479.38
Schmidt Family Trust	Madison	\$ 17,431.47	\$ 8,363.09	\$ 29,052.45
SRI2 LLC	Holt	\$ 12,544.63	\$ 6,602.10	\$ 20,907.72
Stagemeyer, Brent M.	Holt	\$ 9,903.15	\$ 9,875.40	\$ 16,505.25
Stauffer Ag Enterprises	Holt	\$ 14,812.00	\$ 7,394.58	\$ 24,687.40
Thiele, Fred J.	Holt	\$ 11,091.86	\$ 40,093.24	\$ 18,486.44
Thies Farms Central LLC	Merrick	\$ 20,000.00	\$ 11,432.80	\$ 60,093.24
TOTAL		\$ 572,009	\$ 539,144	\$ 1,111,153

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PROJECT BUDGET

Period of Performance: October 2018 – July 2020			
Budget Category	Share of Total Budget to be Funded by the Trust	Cost-Share to be Paid by Project Recipients	Total Budget Amount
<u>Equipment:</u>			
Refuse Truck Rebates	\$ 166,288	\$ 393,515	\$ 559,803
Irrigation Engine Rebates	\$ <u>572,009</u>	\$ <u>539,144</u>	\$ <u>1,111,153</u>
EQUIPMENT TOTAL	\$ 738,297	\$ 932,659	\$ 1,670,956
Contractor Support	\$ 0	\$ 0	\$ 0
Subrecipient Support	\$ 0	\$ 0	\$ 0
<u>Administrative Costs (5%)</u>			
Program planning, development, outreach, and administration	\$ 36,915	\$ 0	\$ 36,915
Project Totals	\$ 775,212	\$ 932,659	\$ 1,707,871
Percentage	45.4%	54.6%	100%

FUNDING REQUESTS: PREVIOUS, CURRENT, AND PLANNED

Funding Request	Requests to be paid through the Trust	Recipient Cost-Share	Total Project Funding
1. 2017 DERA Program Projects (previous)	\$ 287,243	\$ 673,827	\$ 961,070
2. 2018 School Bus Rebates (previous)	\$ 1,891,527	\$ 2,526,044	\$ 4,417,571
3. 2018 Transit Bus Rebates (previous)	\$ 1,255,206	\$ 2,235,165	\$ 3,490,371
4. 2018 DERA Program (current)	\$ 775,212	\$ 932,659	\$ 1,707,871
5. 2019 School Bus Rebates (planned 8/2019)	\$ 1,323,665	\$ 1,260,633	\$ 2,584,298
TOTALS	\$ 5,532,853	\$ 7,628,328	\$ 13,161,181

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PROJECTED ANNUAL TRUST ALLOCATIONS

	2019	2020	2021
1. Anticipated Annual Project Funding Request to be paid through the Trust	\$ 2,098,877	\$ 1,857,620	\$ 1,857,620
2. Anticipated Annual Cost Share	\$ 2,193,292	\$ 2,932,159	\$ 2,932,159
3. Anticipated Total Project Funding by Year (line 1 plus line 2)	\$ 4,292,169	\$ 4,789,7796	\$ 4,789,779
4. Cumulative Trustee Payments Made in Previous Years Against Cumulative Approved Beneficiary Allocation	\$ 3,433,976	\$ 5,532,853	\$ 7,390,473
5. Current Beneficiary Project Funding to be paid through the Trust (line 1)	\$ 2,098,877	\$ 1,857,620	\$ 1,857,620
6. Total Funding Allocated to Beneficiary, inclusive of Current Action by Year (line 4 plus line 5)	\$ 5,532,853	\$ 7,390,473	\$ 9,248,094
7. Beneficiary Share of Estimated Funds Remaining in Trust at Start of Year	\$ 8,814,372	\$ 6,715,495	\$ 4,857,875
8. Net Beneficiary Funds Remaining in Trust, net of cumulative Beneficiary Funding Actions (line 7 minus line 5)	\$ 6,715,495	\$ 4,857,875	\$ 3,000,254

ATTACHMENT C

DETAILED PLAN FOR REPORTING ON ELIGIBLE MITIGATION ACTION IMPLEMENTATION

The Nebraska Department of Environmental Quality (NDEQ) will provide detailed reporting on this funding request under Eligible Mitigation Action 10 (DERA option) in three ways: 1) timely updates to NDEQ's Volkswagen Environmental Mitigation Trust – Nebraska Diesel Emission Mitigation Program web pages and Clean Diesel Program (DERA) web pages; 2) quarterly reports submitted to the Environmental Protection Agency (EPA) on the 2018 Clean Diesel State Grant; and 3) semi-annual reports to the Trustee as required by subparagraph 5.3 of the Environmental Mitigation Trust Agreement for State Beneficiaries.

NDEQ WEBSITE

NDEQ maintains a series of webpages describing the Nebraska Diesel Emission Mitigation Program under the Volkswagen Diesel Emissions Environmental Mitigation Trust for State Beneficiaries. The main webpage, which outlines the mitigation actions eligible for funding and their status, can be found at <http://deq.ne.gov/NDEQProg.nsf/OnWeb/AirVW>. Copies of funding request certifications to the Trustee will be available from this web page through links to Nebraska's page on the Volkswagen Diesel Emissions Environmental Mitigation Trust website. Separate web pages for individual project categories are being developed and posted as funding programs open; these pages track the status, progress, and results for projects under these funding categories. A separate web page on the Nebraska Clean Diesel Rebate Program (<http://deq.ne.gov/NDEQProg.nsf/OnWeb/NCDGP>) is maintained and includes lists of rebate recipients and rebate amounts for current and past projects, as required by the Clean Diesel State Grant (DERA program).

All application materials, reimbursement requests, and required documentation submitted by applicants and rebate recipients for Nebraska's DERA program are archived in Nebraska's Enterprise Content Management (ECM) system and are available to the public through a Public Records Search web page accessed through the NDEQ website.

DERA QUARTERLY REPORTS

NDEQ has submitted and will continue to submit quarterly reports to the Environmental Protection Agency (EPA) on the progress of projects under the 2018 Clean Diesel State Grant Program (DERA). These reports include technical details of the individual diesel emission reduction projects (vehicles and equipment being replaced as well as the replacement vehicles and equipment), estimates of emissions reductions, project progress and timelines, and financial reporting.

SEMI-ANNUAL REPORTS TO THE TRUSTEE

As required by subparagraph 5.3 of the Environmental Mitigation Trust Agreement for State Beneficiaries, NDEQ will submit a report to the Trustee no later than January 30 and July 30 each year for the preceding 6-month periods. These reports will describe the progress implementing this and any other Eligible Mitigation Action ongoing during the reporting period. These reports will include a summary of all costs expended and a complete description of the status (including the actual or projected termination date), development, implementation, and any modification of the Eligible Mitigation Action. Reports covering the DERA program actions described in this funding request will include the quarterly reports to EPA described above. The Nebraska Diesel Emission Mitigation Program webpage includes a link to Nebraska's page on the Volkswagen Diesel Emissions Environmental Mitigation Trust website, where these semi-annual reports can be accessed by the public.

ATTACHMENT D

**DETAILED COST ESTIMATES FROM SELECTED VENDORS
FOR EACH PROPOSED EXPENDITURE EXCEEDING \$25,000 (5.2.6)**

REFUSE TRUCK REPLACEMENTS

Each applicant for the 2018 Nebraska Clean Diesel Refuse Truck Rebate Program was required to seek at least one price quote for a replacement truck and submit it with their application. The table below shows the cost ranges of quotes submitted by four applicants. These quotes include the cost of the truck cab and chassis along with the cost of a trash packer-loader to be mounted on the chassis.

Truck Fuel	Truck Price Range	Rebate
Compressed Natural Gas	\$334,653 to \$370,226	35% of truck cost, maximum \$110,000
Diesel	\$225,150 to \$262,924	25% of truck cost, maximum \$70,000

The table below lists the quotes for the two refuse truck projects covered by this funding request. Copies of the price quotes provided by these rebate recipients are attached.

Recipient	Fuel	Vendors	Cost	Rebate	Cost-Share
Gretna Sanitation	CNG	Mack (cab/chassis) McNeilus (loader)	\$334,653	\$110,000	\$224,653
Niederhaus Refuse	Diesel	Elliott Equipment Co.	\$225,150	\$56,288	\$168,862

DIESEL IRRIGATION ENGINE REPLACEMENTS WITH ALL-ELECTRIC EQUIPMENT

Each applicant for the 2018 Nebraska Clean Diesel Irrigation Engine Rebate Program was required to provide price quotes for a new electric motor (if needed), other required electrical equipment (conduit, panels, etc.) and labor, and for the cost of extending electric service to the irrigation well site. Quoted cost ranges from 42 applicants are shown below. Costs are quite variable depending on the equipment to be installed and the length of utility service line needed to connect the well site to the electric grid.

	Equipment & Installation	Service Line Extension	Total Project Cost	Rebate	Cost-Share
Minimum	\$7,027	\$0	\$11,702	\$7,021	\$4,681
Maximum	\$54,496	\$49,400	\$61,046	\$20,000	\$41,046

Total project costs and rebate amounts for the 39 individual projects covered by this funding request are listed in Attachment B.

DATE

1/16/2019

QUOTE INFORMATION

RDO2018000415D892

TERRAPRO 64R G

Qty: 1

PREPARED BY

RDO TRUCK CENTER CO.

7210 L ST

OMAHA

NE 681271816

PREPARED FOR

GRETNA SANITATION

11855 S 216TH ST STE 3

GRETNA

NE 680285993

QUOTE



1-16-2019 Front Loader
Updated Quote



PRICING SUMMARY

TERRAPRO 64R G

VEHICLE PRICE

BASE SELLING PRICE \$152,476.00

TAX SUMMARY

AMT. SUBJECT TO TAX

FRET (12%)	\$152,476.00	\$18,297.12
Tire Tax Credit	N/A	\$(614.30)

TOTAL TAX \$17,682.82

TOTAL SELLING PRICE (PER UNIT) \$170,158.82

GRETNA SANITATION

DATE

RDO TRUCK CENTER CO.

DATE

Pricing above includes the truck as specified delivered to the body builder. Pricing is guaranteed for 30 days if built in 2019. Currently 2019 build is possible but not guaranteed. Lead times will be determined after order.

Total truck chassis-	\$170,158.82
5 year/200,000 mile cummins engine warranty-	\$ 3,900.00
5 year Allison warranty-	\$ 1,096.00
McNeilus Antlantic 36 yd Front Loader quote 0TY201810170742 dated 12-20-18	\$159,498.00

Total purchase price with truck, body, and warranty- \$334,652.82

Body builder and warranty pricing are 3rd party and are accurate as of the time of this quote but are not under the control of RDO Truck Center. Any change in these prices would change the final sale amount.



McNeilus Truck and Manufacturing Inc.

Denver, CO 80221
3034274615

Quote Number: 0TY201810170742 Rev: 0

Catalog: 18.05.03

Model 3629: Atlantic 36 yd Front Loader (FE)

Printed: 12/20/2018

Quoted/Sold To:

Delivery Point:

<p>Gretna Sanitation 11855 S 216th St Gretna, NE68028 USA Attn: Andy Harpenau</p>	<p>Rdo Truck Center Co 7210 L Street Omaha, NE 68127 USA</p>
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<p>Total Configured Price Surcharge Specials FET Freight Extended Warranties Miscellaneous Sales Tax Total Unit Price Quantity Extended Price Required Down Payment</p>	<p>\$137,220 \$4,803 0 \$16,562 \$913 0 0 0 \$159,498 1 \$159,498 Signed Quote</p>	<p>Quantity Discount Pricing includes all applicable discounts for quantity quoted. Change of quantity ordered may result in revision of price.</p> <p>Freight Charges Freight charge is estimated based upon fuel cost at the time of quotation. The charge is subject to change at the time of delivery. Shipping arrangements (when applicable) are made for the convenience of the customer. Seller assumes no responsibility for the equipment in transport.</p> <p>Taxes No state or local taxes are included in the prices quoted herein. Any applicable state and local taxes must be added to these prices and paid directly by the purchaser.</p> <p>Specifications All specifications are subject to change without notice. Several factors beyond the control of the chassis OEM or McNeilus may result in the substitution of components of equal or greater quality.</p> <p>Special Options Special options are subject to engineering application approval.</p> <p>Terms & Conditions This quotation assumes and is subject to the standard terms and conditions of London Machinery, Inc, McNeilus Truck and Manufacturing Inc. and Oshkosh Corporation, including limitations of warranty.</p>
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This quotation is valid until 01/16/2019.
Any order is contingent upon acceptance by McNeilus Truck and Manufacturing Inc.

Payment Terms
Due upon receipt

Quotation Currency
All prices are in US Dollars (USD)

Acceptance

By signing and returning this document, you are indicating that you have read and approved the above specification.

Please return this signed quotation and down payment to your McNeilus representative.

If you have any questions, please feel free to contact us.

THIS QUOTE MAY BE SUBJECT TO THE IMPOSITION OF A SURCHARGE BASED ON PRICE INCREASES ON STEEL. WE WILL PROVIDE EXACT AMOUNT OF SURCHARGE AS SOON AS PRACTICABLE.

Date(s) chassis will arrive at McNeilus

Authorized Signature

Date



Quote Number: OTY201810170742
Rev: 0

Catalog:18.05.03
Printed:12/20/2018

Chassis Type: CUSTOMER
Chassis Specification: CT - Mack MRU633 (CNG)

Customer Provided Chassis:

This quotation does not include a chassis. The customer will provide a chassis of the type noted, and must provide VIN numbers and anticipated arrival dates as soon as possible.

The chassis must meet certain specific requirements for dimensions and included features and/or accessories.

Deviations from these requirements may cause price and delivery adjustments to the customer, due to additional labor and/or materials which must be provided by McNeilus.

Example issues which might result in extra charges and/or delays include, but are not limited to:

Component mounting locations, such as exhaust, battery boxes, air tanks, etc.

Improper dimensions, such as wheelbase, cab-to-axle, afterframe, etc.

Late arrival of the chassis to McNeilus may result in a delivery delay of the completed unit to the customer. This delay may be greater than the original delay of chassis arrival, due to increasing demand for McNeilus products in the intervening period.

Any non-conforming chassis will be reconfigured as necessary by McNeilus or our designated agent. All necessary material and labor for this reconfiguration will be billed to the customer, at then current shop rates. To avoid these potential charges, ensure that the provided chassis meets the requirements noted below.

REQUIREMENTS FOR CUSTOMER PROVIDED MACK CHASSIS FOR ANY MCNEILUS REFUSE APPLICATION

Any Mack LEU or MRU chassis which is equipped with a Cummins ISL-G CNG engine requires PID Code 292-1000: Factory Installed CNG Coolant Loop.



3100 West 76th Street
 Davenport, IA 52806
 Ph: 563-391-4840

Elliott Sanitation Equip. Co.
 1245 Dawes Avenue
 Lincoln, NE 68521
 Ph: 402-474-4840

Quote

Date	Quote #
2/28/2019	10917
Proposed Shipping Date	
Terms	
Net 30	
Rep	
JSK	

4000 SE Beisser Drive
 Grimes, IA 50111
 Ph: 515-986-4840
 Fx: 515-986-9530

14001 Botts Rd.
 Grandview, MO 64030
 Ph: 816-761-4840

4400 E 60th Ave
 Commerce City, CO 80022
 Ph: 303-853-4840

Niederhaus Refuse Inc
 1905 Yolande Ave
 Lincoln, NE 68521

Here is our quotation on the goods named, subject to the conditions noted:

CONDITIONS: The prices and terms on this quotation are not subject to verbal changes or other agreements unless approved in writing by the Home Office of the Seller. Prices are based on costs and conditions existing on date of quotation and are subject to change by the Seller before final acceptance. All quotations and agreements are contingent upon strikes, accidents, fires, availability of materials and all other causes beyond our control.

Typographical and stenographic errors subject to correction. Purchaser agrees to accept either overage or shortage not in excess of ten percent to be charged for pro-rata. Purchaser assumes liability for patent and copyright infringement when goods are made to Purchaser's specifications. When quotation specifies material to be furnished by the purchaser, ample allowance must be made for reasonable spoilage and material must be of suitable quality to facilitate efficient production.

Conditions not specifically stated herein shall be governed by established trade customs. Terms inconsistent with those stated herein which may appear on Purchaser's formal order will not be binding on the Seller.

TERMS: Equipment is due on receipt. Carts, Containers, Parts, & Service are Net 30 unless otherwise noted on your account. Balances over 30 days from date of invoice are subject to finance charges up to 1½% per month.

Qty	Item	Description	Price	Total
1	Mack MRU613	2018 Mack MRU613 cab over chassis with MP 7 engine, 20,000# front , 46,000# rear, camelback suspension, 40 yard Heil half/pack frontload body 63,512 miles, 3310 hours. Warranty extended to 2022	225,000.00	225,000.00
	Federal Excise Tax.	Has been paid already so exempt	0.00	0.00
	Administrative Fee		150.00	150.00
	Sales Tax		0.00	0.00

****Administrative Fee of \$150.00 will be added to all vehicle purchase transactions.****

Total	\$225,150.00
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TO CONFIRM ORDER, SIGN AND RETURN

X _____

ATTACHMENT E

FISCAL YEAR 2018

STATE CLEAN DIESEL GRANT PROGRAM

WORK PLAN AND BUDGET NARRATIVE

NEBRASKA DEPARTMENT OF ENVIRONMENTAL QUALITY

1 JUNE 2018

SUMMARY PAGE

Project Title: 2018 Nebraska Clean Diesel Rebate Program

Project Manager and Contact Information

Organization Name: Nebraska Department of Environmental Quality

Project Manager: Randy Smith

**Mailing Address: Nebraska Department of Environmental Quality,
1200 N Street, Suite 400,
Lincoln, NE 68509**

Phone: 402-471-4272

Fax: 402-471-2909

Email: randy.smith@nebraska.gov

Project Budget Overview:

	FY 2017	FY 2018
EPA Base Allocation	\$ 228,201	\$ 274,589
State or Territory Matching Funds (if applicable)	\$ 228,226	\$ 490,000
EPA Match Incentive (if applicable)	\$ 114,100	\$ 137,295
Mandatory Cost-Share	\$ 962,000	\$ 1,301,664
TOTAL Project	\$ 1,532,527	\$ 2,203,548

Project Period

October 1, 2018 – September 30, 2019

Summary Statement

The Nebraska Department of Environmental Quality (NDEQ) proposes to award rebates in two subprograms: 1) replacement of diesel refuse trucks, and 2) electric replacements of diesel engines powering agricultural irrigation pumps. Utilizing both EPA and State Voluntary Matching Funds, NDEQ anticipates awarding five rebates for replacement of diesel refuse trucks and 20 rebates for electric replacements of diesel irrigation engines.

SCOPE OF WORK

STATE/TERRITORY GOALS AND PRIORITIES:

All areas of Nebraska are currently in attainment with the National Ambient Air Quality Standards (NAAQS) for all criteria pollutants. The Omaha and Lincoln metropolitan statistical areas (MSAs) are the largest urbanized areas within the state and have pollution potential inherent to such areas. Ozone levels approaching the ozone NAAQS (0.70 ppm) have been experienced at times in the Omaha metropolitan area and at Santee in northeastern Nebraska.

According to the 2014 National Emissions Inventory, diesel vehicles and equipment in Nebraska were responsible for 124,481 tons of annual NO_x emissions, 5,510 tons of PM₁₀, and 5,177 tons of PM_{2.5}, primarily from heavy-duty diesel highway vehicles, locomotives, and non-road diesel equipment. Diesel sources are responsible for two-thirds of the NO_x emissions in the state.

Nebraska cities have taken action over the last decade to reduce diesel emissions. StarTran, the transit bus agency in Lincoln, has introduced 13 compressed natural gas (CNG) buses and 13 CNG Handi-Vans to its fleet, replacing older diesel and gasoline vehicles. CNG vehicles now make up over one-third of the StarTran fleet. StarTran is also in the process of purchasing two battery-electric transit buses; this purchase will be partially supported by NDEQ using funds from the *Volkswagen Diesel Emissions Environmental Mitigation Trust for States* (VW State Trust). Omaha Metro Transit is also moving to replace diesel transit buses with CNG vehicles. The agency's Omaha Rapid Bus Transit (ORBT) project, to be launched in fall of 2019, will utilize CNG-fueled articulated buses replacing older diesel buses. (Purchase of two ORBT buses will also be partially supported by NDEQ utilizing Volkswagen State Trust funds.) Beginning in the fall of 2014, the Omaha and Millard (suburban Omaha) public school districts began using 435 new propane-powered buses to transport students, providing significant emissions reductions and reducing health impacts on the students.

However, many older diesel buses and trucks are still in operation in Nebraska. Many older diesel refuse trucks operate in urban areas. These vehicles operate daily through residential and commercial areas, at low speeds, with frequent starts and stops, and with a high proportion of time spent idling. Buses and refuse trucks therefore make a significant contribution to diesel emissions in urban areas and have the potential to impact large populations.

New buses and trucks with engines that meet EPA emissions standards drastically reduce these harmful emissions. Replacement of school buses and refuse trucks with new cleaner diesel or alternative-fueled vehicles is thus a priority of the Nebraska Clean Diesel Program. Thus NDEQ plans to continue the 2017 program of diesel refuse truck replacements under the 2018 Nebraska Clean Diesel Program (DERA). NDEQ also will be replacing school buses in 2018 in a new Nebraska Diesel Emission Mitigation Program funded by the Volkswagen State Trust.

As of October 2016, Nebraska had over 99,000 active agricultural irrigation wells, many of which have pumps powered by diesel engines. Although these engines are in rural areas, they operate during the warmer months of the year when formation of ozone from diesel exhaust is at

Beneficiary Eligible Mitigation Action Certification – Nebraska Funding Request #4- Attachment E

a maximum. Exhaust from this large number of diesel engines is a significant contributor to air pollution in rural areas. In addition, several counties on the DERA 2018 Priority County List have a large number of irrigation wells; these include Buffalo, Keith, Lincoln, and Scotts Bluff counties.

VEHICLES AND TECHNOLOGIES:

NDEQ will award rebates in two subprograms: 1) replacement of urban diesel refuse trucks, eligible under Section VIII.B.2 of the Program Guide; and 2) electric replacements of diesel engines powering agricultural irrigation pumps, eligible under Section VIII.B.5c of the Program Guide.

Urban Refuse Truck Replacement:

NDEQ will offer rebates to assist eligible applicants with partial reimbursement for the replacement of older diesel refuse trucks with trucks powered by:

- a 2017 model year or newer, diesel or alternative-fueled engine certified to meet EPA emission standards (25% rebate up to a \$70,000 limit set by NDEQ);
- a 2017 model year or newer engine certified to meet CARB's Optional Low-NOx Standards (35% rebate up to a \$110,000 limit set by NDEQ);
- an all-electric replacement (45% rebate).

Eligible applicants will be municipalities and private contractors operating diesel refuse trucks in Nebraska communities. Priority will be given to projects in urban areas and to replacement vehicles with Low-NOx Compressed Natural Gas (CNG) engines (35% rebate). For the private companies that perform refuse pickup under contract to most Nebraska communities, this is a higher reimbursement rate than will be available under Options 1 or 6 of the Volkswagen State Trust. Thus NDEQ feels that this Clean Diesel Program will be an attractive option in comparison to future programs funded solely by the Volkswagen State Trust.

NDEQ anticipates funding purchase of 3 CNG replacement refuse trucks and 2 diesel replacement trucks. However, the number of CNG replacements may be lower due to the limited availability of CNG fueling facilities (Lincoln, North Platte, Columbus, and the Omaha metropolitan area). If the number of eligible applicants is higher than anticipated, a larger number of replacement projects may be undertaken by increasing the use of Voluntary State Matching funds from the Volkswagen State Trust.

All entities that receive a rebate will be required to follow the scrappage requirements outlined in the FY2017-2018 State Clean Diesel Grant Program Information Guide.

Non-Road Agricultural Diesel Engine Replacement:

NDEQ will offer rebates to assist eligible applicants with 1) purchase of an electric motor and associated electrical infrastructure needed to replace a non-road diesel engine powering a surface agricultural irrigation pump; or 2) costs of supplying the infrastructure needed to connect a submersible irrigation pump to the electric grid as a replacement of a diesel engine powering a generator. These projects will be eligible for a 60% rebate of equipment, labor, and electric

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power infrastructure costs, including electric line extension, up to a limit of \$20,000 set by NDEQ.

NDEQ will give preference to irrigation engine replacements in counties on the DERA 2018 Priority County List.

Eligible applicants for replacement of an off-road diesel engine will be active farming operations in the state of Nebraska. Eligible engines must operate at least 500 hours annually and fall within the following horsepower (HP) and engine model year guidelines:

- 0 to 50 HP: 2005 and newer, Unregulated – Tier 2;
- 51 to 300 HP: 1995 and Newer, Tier 0 – Tier 3;
- 301-750 HP: 1985 and Newer, Tier 0 – Tier 3;
- 751+ HP: 1985 and Newer, Tier 0 – Tier 2.

NDEQ anticipates funding 20 diesel irrigation engine replacement projects in this program. This program could be expanded using additional Voluntary State Match funds if a high number of eligible applications are received. All entities that receive a rebate will be required to follow the scrappage requirements outlined in the FY2017-2018 State Clean Diesel Grant Program Information Guide.

ROLES AND RESPONSIBILITIES:

NDEQ will use 2018 State Clean Diesel Grant funds to support two rebate programs to replace diesel vehicles and engines in Nebraska. NDEQ has successfully administered rebate programs with funding from EPA's Clean Diesel Program to reduce diesel emissions since 2008, including funding from the American Recovery and Reinvestment Act from 2009 to 2012. Projects funded prior to 2013 included diesel emission control retrofits, auxiliary power units and aerodynamic equipment for long-haul trucks, diesel engine replacements, and vehicle replacements. Rebate recipients in these projects included both government and private-sector entities. From 2013 to 2016 NDEQ administered an annual Clean Diesel School Bus Rebate Program. In 2017 rebate programs for refuse truck replacements and diesel irrigation engine replacements were added to the Nebraska Clean Diesel Program. This experience demonstrates NDEQ's ability to successfully carry out varied diesel emissions reduction rebate programs.

Urban Refuse Truck Replacement:

NDEQ will provide notice of the Refuse Truck Rebate Program to public and private waste haulers in Nebraska via the agency website, press release, and notices to trade and municipal associations. We have developed application materials, instructions, and selection criteria specific to this program and will make them available on the agency website, and we will work with public agencies and private companies as they develop their applications. NDEQ will select the successful applicants and provide rebates directly to the recipients. The recipients will be expected to provide mandatory matching funds to complete the financial commitments required for their projects.

Non-Road Agricultural Diesel Engine Replacement:

A number of public power districts in Nebraska provide financial incentives to farmers for converting irrigation equipment from diesel to electric power. Applicants for agricultural diesel engine replacement rebates will need to work with their electric service provider to determine the costs of electric line extension and other required infrastructure as well as the availability of incentives. NDEQ therefore will notify all public power districts in Nebraska of the availability of Clean Diesel rebates for irrigation engine replacements. NDEQ also has established relationships with Natural Resource Districts (NRDs) in Nebraska. NRD staff have direct knowledge of irrigation patterns in their district and have working relationships with farmers. We plan to work with one or more NRDs that include counties on the 2018 DERA Priority Counties list to provide notice of the rebate opportunity, recruit rebate applicants, and provide advice on possible non-federal sources of funds to assist recipients with their mandatory match.

NDEQ has developed application materials, instructions, and selection criteria specific to this program and will make them available on the agency website. NDEQ will assist applicants during the application process, select the successful applicants for rebates, and provide rebates directly to the recipients. Recipients will be expected to provide mandatory matching funds to complete the financial commitments required for their projects.

General Administration and Disbursement Procedures

Rebate applicants will be required to attest that the engine or vehicle being replaced was not due for replacement due to normal attrition within three years of the project start date. The replacement vehicle or engine will be required to be of the same type and similar gross vehicle weight rating as the replaced unit. The replaced engine and vehicle will be required to be scrapped or rendered permanently disabled within 90 days of being replaced unless additional time is approved by EPA. Diesel engines will be scrapped by cutting a 3-in by 3-in hole in the engine block, or an equivalent scrapping method approved by EPA. A vehicle will be disabled by cutting the frame rails between the front and rear axles.

NDEQ will maintain frequent contact with the successful applicants and provide assistance as needed to ensure that they stay on track to complete their projects within the specified time frame. After the new vehicle or engine has been delivered or installed, and prior to receiving reimbursement, applicants will be required to submit extensive documentation of the purchase along with documentation of scrapping of the old vehicle or engine:

1. Completed “Request for Reimbursement” form
2. Completed “Final Report” form
3. Photocopy of the purchase order for the new vehicle/engine and/or photocopy of the invoice for the new vehicle/engine and photo of the new engine label with the following information:
 - a. VIN number (for vehicle) or engine serial number (for replacement engine)
 - b. Engine model year
 - c. Engine manufacturer
 - d. EPA engine family name

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- e. Vehicle/engine cost
4. Proof of Payment, such as a paid invoice or receipt, photocopy of the canceled check, bank statement showing the check has cleared, or credit card statement showing the payment has cleared
5. Proof of scrappage of the old engine via the EPA Certificate of Destruction and:
 - a. Photo of the engine label that includes the engine serial number and EPA engine family name
 - b. Photo of the engine block prior to scrappage
 - c. Photo of the engine block after scrappage, showing the hole cut in the block
6. Proof of scrappage of the old vehicle (if applicable) via the EPA Certificate of Destruction and:
 - a. Side profile photo of the vehicle
 - b. Photo of vehicle label with Vehicle Identification Number (VIN)
 - c. Photos of chassis rails prior to scrappage
 - d. Photos of chassis rails after cutting

TIMELINE AND MILESTONES:

NDEQ's 2018 Nebraska Clean Diesel Rebate Program will begin as soon as the grant award is made. Public notice and outreach of the program will begin in advance of the October 1 start of the 2018 grant year. During the first quarter of the grant year, NDEQ will complete the solicitation and processing of rebate applications, will select rebate recipients, and prepare project agreements. Recipients will be notified during the second quarter to commence work on their project. NDEQ will monitor project progress closely to encourage timely performance by the selected applicants. In particular, we will encourage participants in the irrigation engine replacement program to take early action to initiate their projects so that work can be completed prior to the start of the crop season. We anticipate that most recipients will complete their projects and receive reimbursements during the third and fourth quarters. NDEQ will follow the timeline below, assuming receipt of the EPA award in August:

September 7, 2018: NDEQ posts program information and application materials on the agency website and begins outreach to the target sectors.

October 1, 2018: NDEQ begins accepting rebate applications.

December 7, 2018: Deadline for submission of rebate applications to NDEQ.

December 10-14, 2018: Review of rebate applications and selection of rebate recipients.

December 14, 2018: Notification of rebate recipients.

January 4, 2019: Agreements mailed to rebate recipients. Public notification of rebate projects posted on NDEQ website.

January 25, 2019: Deadline for rebate recipients to return signed contracts to NDEQ.

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January 31, 2019: Commence Work letters mailed to recipients.

February –August 2019: Monitoring of rebate recipients for project progress, and issuance of rebates as projects are completed.

August 15, 2019: Deadline for recipients to complete their project and submit complete reimbursement requests with documentation of scrappage.

DERA PROGRAMMATIC PRIORITIES:

NDEQ’s 2018 DERA Clean Diesel Rebate Programs will be targeted to achieve significant reductions in diesel emissions in areas designated as poor air-quality areas and/or emissions that lead to exposure of especially vulnerable populations.

Refuse Truck Replacement:

Diesel refuse trucks operate in all cities and towns in Nebraska. NDEQ will give preference to applicants operating in the urban areas of counties designated as EPA Priority Counties for FY2018 on the basis of population exposure to diesel particulate emissions in the 2011 National Scale Air Toxics Assessment. Providing rebates to refuse haulers to replace older diesel trucks with newer and cleaner trucks will produce significant reductions in diesel emission in these priority areas.

Non-Road Agricultural Diesel Engine Replacement:

NDEQ will give preference to agricultural diesel engine replacements in counties on the DERA 2018 Priority County List and will require electric replacement equipment. A number of predominantly rural Nebraska counties are EPA Priority Counties for 2018 on the basis of population exposure to diesel particulate emissions in the 2011 National Scale Air Toxics Assessment. These priority counties include Buffalo, Dodge, Gage, Jefferson, Keith, Lincoln, Platte, and Scotts Bluff counties. NDEQ will give preference to these counties and to projects that are in close proximity to population centers that might be affected by these diesel emissions.

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

Linkage: The actions outlined in this workplan support Goal 1, Objective 1.1, “Improve Air Quality”, of EPA’s 2018-2022 Strategic Plan. Reducing emissions from diesel engines is an important component of the reduction of local and regional air pollution, thereby supporting EPA’s goal to “achieve and maintain health-based air pollution standards and reduce risk from toxic air pollutants and indoor air contaminants.” Replacement of older, more polluting diesel engines and buses with new, less polluting units reduces diesel emissions, thus directly reducing the local and regional risk from criteria pollutants (particulate matter, NOx, and ozone), air toxics, and greenhouse gases.

Outputs: The primary output of this program will be the replacement of older, more polluting diesel vehicles and engines with new, cleaner units. This output will be measureable in terms of

Beneficiary Eligible Mitigation Action Certification – Nebraska Funding Request #4- Attachment E

the number of replacements funded and completed, which will depend upon the mix of replacement applications received and the replacement technologies proposed.

NDEQ will disseminate information about the program or programs and the available technologies via the agency website, mail, e-mail, and possibly public meetings. These public outreach efforts will raise community awareness of the importance of reducing diesel emissions.

NDEQ will track and measure the progress made by the rebate recipients and provide quarterly reports to EPA summarizing this progress. NDEQ will also provide a final report on the program to EPA.

Outcomes: Nebraska’s proposed FY2018 Clean Diesel Rebate Program will produce significant reductions in diesel emissions and thereby reduce the exposure of vulnerable populations to these emissions. In addition, NDEQ’s outreach efforts will lead to increased community awareness of the importance and health benefits of emissions reductions, and will promote institutional behavioral changes to reduce diesel vehicle idling where possible.

Refuse Truck Replacements

Reducing refuse truck diesel emissions would have immediate impact in densely-populated urban areas that include a number of vulnerable populations, including the elderly, children, and people with respiratory conditions. Over the long term, these emissions reductions should lead to reduced respiratory disease and complications in these populations.

Table 1 below shows estimated reductions in emissions that would result from replacement of one refuse truck with a 2001 diesel engine by a new truck with a 2018 diesel engine. These estimates use default inputs in the Diesel Emissions Quantifier. For 5 such truck replacements, and assuming a 10-year remaining vehicle lifetime, the estimated lifetime emission reductions for a diesel replacement would be approximately 23.3 tons of NOx, 1.0 ton of PM_{2.5}, 1.1 tons of hydrocarbons, and 7.5 tons of carbon monoxide. However, NDEQ is planning to give preference to replacement vehicles with low-NOx CNG engines, which would result in even greater lifetime reductions in NOx compared to those computed using the Diesel Emissions Quantifier (which does not currently model replacement of diesel engines with alternative-fuel engines).

Table 1: Estimated emission reductions from replacing one diesel refuse truck (2001 model year) with a new diesel truck with 2018 engine model year, from Diesel Emissions Quantifier using default input values: fuel use = 3,993 gal/yr, vehicle miles = 23,646 mi/yr, idling = 50 hr/yr.

Annual Results (short tons)	NOx	PM2.5	HC	CO
Baseline	0.493	0.020	0.023	0.158
Amount Reduced	0.466	0.020	0.022	0.15
Percent Reduced	94.4%	97.3%	92.5%	95.2%
Lifetime Results (short tons, assuming 10 year remaining lifetime)				
Baseline	4.935	0.204	0.235	1.578
Amount Reduced	4.658	0.199	0.217	1.503
Percent Reduced	94.4%	97.3%	92.5%	95.2%

Non-Road Agricultural Diesel Engine Replacements

Table 2 below shows estimated reductions in emissions that would result from replacement of one irrigation pump engine (2001 model year) by an all-electric replacement. These estimates use inputs in the Diesel Emissions Quantifier that are averages from applicants for the 2017 Nebraska irrigation engine rebate program. For 20 such replacements and a 10-year remaining engine lifetime, lifetime emissions reductions would be approximately 43.6 tons of NOx, 2.6 tons of PM_{2.5}, 2.6 tons of hydrocarbons, and 7.3 tons of carbon monoxide.

Table 2: Estimated emission reductions from replacing one irrigation pump diesel engine (2001 model year) with an all-electric replacement. Results from Diesel Emissions Quantifier using input values averaged from Nebraska 2017 irrigation engine rebate applicants: Tier 1 engine, fuel use = 4,635 gal/yr, 100 horsepower engine, usage rate = 790 hr/yr.

Annual Results (short tons)	NOx	PM2.5	HC	CO
Baseline	0.218	0.013	0.013	0.037
Amount Reduced	0.218	0.013	0.013	0.037
Percent Reduced	100.0%	100.0%	100.0%	100.0%
Lifetime Results (short tons, assuming 10 year remaining lifetime)				
Baseline	2.179	0.131	0.132	0.365
Amount Reduced	2.179	0.131	0.132	0.365
Percent Reduced	100.0%	100.0	100.0%	100.0%

NDEQ will give preference to irrigation engine replacements in counties on the EPA 2018 Priority County List, so the reductions in diesel emissions produced by these replacement projects will reduce the pollutant load in areas already affected by elevated diesel emissions. We will also give preference to projects close to population centers to maximize the health benefit to people residing in these counties.

SUSTAINABILITY OF THE PROGRAM:

NDEQ will continue to promote (and assist stakeholders in finding) reasonable and practical solutions to reduce diesel emissions and consumption of diesel fuel. These efforts will include promoting behavioral changes to reduce idling of diesel engines at schools and educational efforts on the health benefits of replacing older diesel vehicles and engines. NDEQ will promote these ideas and practices on the agency website, via the AirNews listserv (through which we communicate air quality news to approximately 1,000 stakeholders), during NDEQ Air Update workshops/webcasts, and through distribution of informational brochures.

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BUDGET NARRATIVE

Itemized Project Budget, FY2017-2018

Budget Category	FY 2017*			FY 2018			Total
	EPA Allocation \$342,301	Voluntary Match (if applicable) \$228,201	Mandatory Cost-Share (if applicable)	EPA Allocation \$411,884	Voluntary Match (if applicable) \$490,000	Mandatory Cost-Share (if applicable)	
1. Personnel	\$ 13,889	\$1,104		\$ 17,110			\$ 32,103
2. Fringe Benefits	\$ 4,182	\$ 331		\$ 5,133			\$ 9,646
3. Travel				\$ 436			\$ 436
4. Supplies							
5. Equipment							
6. Contractual							
7. Program Income							
8. Other	\$ 316,800	\$ 226,200	\$ 962,000	\$ 380,000	\$ 490,000	\$ 1,301,664	\$ 3,676,664
9. Total Direct Charges	\$ 334,871	\$ 227,635	\$ 962,000	\$ 402,679	\$ 490,000	\$ 1,301,664	\$ 3,718,849
10. Indirect Charges	\$ 7,430	\$ 591		\$ 9,205			\$ 17,226
Total	\$ 342,301	\$ 228,226	\$ 962,000	\$ 411,884	\$ 490,000	\$ 1,301,664	\$ 3,736,075

Beneficiary Eligible Mitigation Action Certification – Nebraska Funding Request #4- Attachment E

Detailed Project Budget, FY2018

Budget Category	EPA Allocation \$ 411,884	Voluntary State Match \$490,000	Mandatory Cost-Share	Total FY2018 Project Cost
1. Personnel	\$ 17,110			\$ 17,110
Project Manager: \$23/hr x 570 hours (27% time)	\$ 13,110			
Supervisor: \$50/hr x 80 hours (4% time)	\$ 4,000			
2. Fringe Benefits (30% of personnel costs)	\$ 5,133			\$ 5,133
3. Travel: Equipment inspection mileage: 800 miles @ \$0.545 per mile	\$ 436			\$ 436
4. Supplies				
5. Equipment				
6. Contractual				
7. Program Income				
8. Other: Participant Support Costs	\$ 380,000	\$ 490,000	\$1,301,664	\$ 2,171,664
2 CNG Refuse Trucks @ \$315,000 (35% rebate, maximum \$110,000)	\$ 220,000		\$ 410,000	\$ 630,000
1 CNG Refuse Truck @ \$315,000 (35% rebate, maximum \$110,000)		\$ 110,000	\$ 205,000	\$ 315,000
2 Diesel Refuse Trucks @ \$280,00 (25% rebate, maximum \$70,000)		\$ 140,000	\$ 420,000	\$ 560,000
8 Diesel Irrigation Engine Electric Replacements @ \$33,333 (60% rebate, maximum \$20,000)	\$ 160,000		\$ 106,664	\$ 266,664
12 Diesel Irrigation Engine Electric Replacements @ \$33,333 (60% rebate, maximum \$20,000)		\$ 240,000	\$ 160,000	\$ 400,000
9. Total Direct Charges	\$ 402,679	\$ 490,000	\$1,301,664	\$ 2,194,343
10. Indirect Charges (53.5% of personnel)	\$ 9,205			\$ 9,205
GRAND TOTAL	\$ 411,884	\$ 490,000	\$1,301,664	\$ 2,203,548

Explanation of Budget Framework

- **Personnel**
Salaries for NDEQ Project Manager (27% time, 570 hours @ \$23/hour) and NDEQ Supervisor (4% time, 80 hours @ \$50/hour).
- **Fringe Benefits**
30% of Personnel Cost, covering health insurance, retirement, unemployment, leave.
- **Travel**
One inspection trip by NDEQ personnel for a selected group of rebate recipients to verify project completion. Estimated mileage is 800 miles at 54.5 cents per mile.
- **Equipment**
None
- **Supplies**
None
- **Contractual**
None
- **Other – Participant Support Costs**
Rebates paid to applicants for vehicle and engine replacements.
- **Indirect Charges**
53.5% of Personnel Costs.