

State of Nebraska

Volkswagen Environmental Trust Beneficiary Mitigation Plan



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NEBRASKA
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DEPARTMENT OF ENVIRONMENT AND ENERGY

State of Nebraska
Volkswagen Environmental Trust
Beneficiary Mitigation Plan

Prepared by:

Nebraska Department of Environment and Energy

P.O. Box 98922

Lincoln, NE 68509-8922

<http://dee.ne.gov>

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Introduction

The Nebraska Department of Environment and Energy (NDEE; formerly the Department of Environmental Quality) has been designated by Governor Ricketts as the lead agency to administer funds allocated to Nebraska from the Volkswagen Environmental Mitigation Trust for State Beneficiaries¹ (“State Mitigation Trust”). As directed by the State Mitigation Trust Agreement, these funds are to be used to undertake authorized actions to reduce nitrogen oxide emissions in Nebraska. The initial allocation to Nebraska from the State Mitigation Trust is approximately \$12.25 million. This document outlines Nebraska’s Mitigation Plan for utilizing State Mitigation Trust funds in Nebraska.

After assessing the initial rounds of project funding, Nebraska has modified the Plan to reflect project demand and changing priorities. The State is redirecting unallocated funds to increase funding for school bus replacements from 25% to 52% and increase funding for electric vehicle (EV) charging infrastructure from 10% to 15% of funds (consistent with public comments favoring maximum funding for EV charging projects). Funding for projects through the Diesel Emissions Reduction Act (DERA) option have been reduced from 25% to 18% of total funds.

Background

A series of partial court settlements have resolved civil actions brought by the United States against Volkswagen AG, Audi AG, Porsche AG, and their subsidiaries (collectively “Volkswagen”) for the installation and use of emission test “defeat devices” in approximately 590,000 diesel vehicles sold in the United States from 2009 to 2016. In normal operation these vehicles emitted excess nitrogen oxide gases (NOx) in violation of the Clean Air Act. Nitrogen oxides are a group of highly-reactive gases that have a number of adverse effects on air quality and human health. Breathing air with high concentrations of NOx can irritate the human respiratory system and aggravate diseases such as asthma. Long-term exposures to NOx may contribute to the development of asthma and respiratory infections. Nitrogen oxides also interact with water, oxygen, and other chemicals in the air to form ground-level ozone, which is also harmful to the human respiratory system when inhaled, and acid rain, which harms sensitive ecosystems such as lakes and forests.

A partial court settlement approved on October 25, 2016 regarding Volkswagen 2.0-liter diesel vehicles authorized an Environmental Mitigation Trust to provide funding to states and tribes to take actions to fully offset the excess NOx emissions from the offending vehicles. This settlement required Volkswagen to contribute \$2.7 billion to fund the Trust, which would be administered by an independent Trustee appointed by the court. A second partial settlement

¹ The Environmental Mitigation Trust Agreement for State Beneficiaries can be found at: <https://www.epa.gov/sites/production/files/2017-10/documents/statebeneficiaries.pdf>.

approved on December 20, 2016 regarding Volkswagen 3.0-liter diesel vehicles required that Volkswagen contribute an additional \$225 million to the Trust.

Wilmington Trust, N.A. was appointed by the court on March 15, 2017 to act as Trustee. Subsequent negotiations resulted in a decision to establish separate trusts for state beneficiaries and Indian tribes. The State Mitigation Trust and Indian Tribe Mitigation Trust were both approved by court order on September 19, 2017, and final executed versions were filed with the court on October 2, 2017, which is the effective date of establishment of each trust.

Governor Ricketts designated NDEE as the lead agency to administer State Mitigation Trust funds in September 2017. The Department filed forms with the court and with the Trustee to certify Nebraska as a beneficiary of the Trust; certification was received in January 2018.

Each state's initial allocation from the State Mitigation Trust was determined by the court based on the number of offending diesel vehicles that were registered there. The initial allocation to Nebraska under the 2.0-liter settlement is \$11,528,812.23. The initial allocation under the 3.0-liter settlement is \$719,535.25, for a total initial allocation of \$12,248,347.48. Nebraska may receive further funds in the future if Volkswagen does not meet other terms of the court settlements, if other states do not expend their allocations within the prescribed timeframe, and from investment income provided by the Trustee.

The State Mitigation Trust will have a 15-year time span. A state beneficiary may request no more than one-third of its initial allocation in the first year of the Trust and no more than two-thirds of its initial allocation in the first two years. Each state beneficiary must expend at least 80% of its initial allocation by the tenth anniversary of the Trust effective date, otherwise the unexpended funds will be reallocated to other beneficiaries that have complied with that guideline.

Eligible Mitigation Actions

Appendix D-2 of the State Mitigation Trust agreement lists ten categories of mitigation actions that are eligible for funding; that detailed list (along with definitions of terms) is included in this document as Appendix A. The goal of each of these actions is to achieve reductions in NOx emissions in the United States. A brief summary of these eligible action categories is provided below.

Diesel Vehicle or Engine Replacements by Diesel, Alternate-fueled, or Electric:

1. Large Local Freight Trucks and Port Drayage Trucks (Gross Vehicle Weight Class 8)
2. School, Shuttle, and Transit Buses (Gross Vehicle Weight Classes 4 to 8)
3. Freight Switcher Locomotives
4. Ferries and Tugs (engine replacement only)
5. Ocean Going Vessels Shorepower
6. Medium Local Freight Trucks (Gross Vehicle Weight Classes 4 to 7)

Replacement of Specialty Equipment by All-Electric:

7. Airport Ground Support Equipment
8. Forklifts with lift capacity greater than 8,000 pounds, and port cargo handling equipment

Other Actions:

9. Light Duty Zero Emission Vehicle Supply Equipment (maximum 15% of allocation)
10. Actions available to states under the Diesel Emissions Reduction Act (DERA)

Previous Public Outreach and Comments

In September 2017 the Department issued a press release and posted a page on the agency website providing an overview of available mitigation actions and soliciting public comment on development of a plan to use Trust funds in Nebraska. The web page included a link to a more detailed Request for Comment document that provided background information on NOx emissions in Nebraska and the distribution of offending diesel vehicles. This document sought answers to a number of key questions to guide Nebraska’s planning process. Public information meetings were held in Lincoln on October 16, 2017 and in North Platte on October 18, 2017. Written comments were accepted at these meetings and also through a web portal and via e-mail from September 21 through November 3, 2017. A tabulation of the written comments is available as Appendix B of this document.

Table 1 below and Figure 1 on the next page record the results from 57 public comments that expressed support for one or more of the eligible mitigation actions available under the Trust. The total in favor is greater than 57 because a number of commenters expressed support for more than one of the eligible actions.

| Action | Description | In Favor | Percent |
|--------|--|----------|---------|
| 1 & 6 | Large & Medium Local Freight Trucks | 17 | 19.8% |
| 2 | School, Shuttle, and Transit Buses | 26 | 30.2% |
| 3 | Freight Switcher Locomotives | 1 | 1.2% |
| 7 | Airport Ground Support Equipment | 1 | 1.2% |
| 8 | Large Forklifts & Port Cargo Handling Equip. | 2 | 2.3% |
| 9 | Zero Emission Vehicle Supply Equipment | 28 | 32.6% |
| 10 | Diesel Emissions Reduction Act | 11 | 12.8% |
| | TOTAL | 86 | 100.0% |

Table 1. Tabulation of public comments in favor of particular mitigation actions. Actions 1 and 6 are grouped because a number of respondents did not distinguish between large and medium trucks.

The mitigation action that received the largest percentage of comments in favor (32.6%) was Zero Emission Vehicle Supply Equipment, specifically charging stations for electric vehicles; only two comments opposed this option. Most of these comments favored spending the

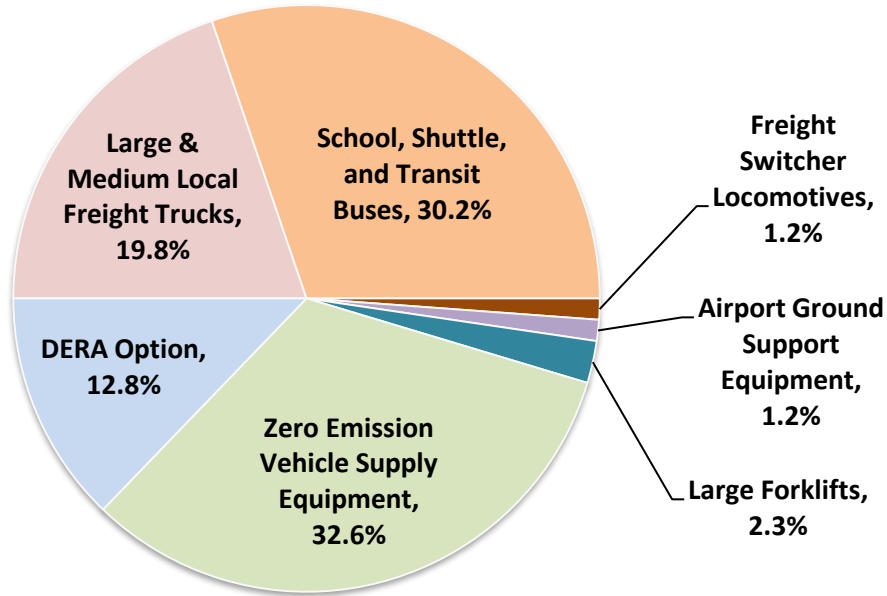


Figure 1. Pie chart of percentages of public comments in favor of particular mitigation actions.

maximum 15% of the state’s allocation on this action. Support for this option came from city governments (Lincoln and Omaha), public utilities (Omaha Public Power District and Nebraska Public Power District) as well as the general public. Strong support was also expressed for replacement of buses (30.2%), local freight trucks (19.8%), and use of the DERA option (12.8%). A large majority of respondents that addressed fuel/power type for replacement vehicles supported replacement electric vehicles, followed by cleaner alternative fuels such as Compressed Natural Gas (CNG) and propane.

Requirements for Mitigation Plans

The State Mitigation Trust agreement requires each state beneficiary to submit and make publicly available a Beneficiary Mitigation Plan (this document) that summarizes how the beneficiary plans to use the funds allocated to it under the Trust, addressing:

- ❖ The State’s overall goal for the use of the funds;
- ❖ The categories of eligible mitigation actions anticipated to be appropriate to achieve the stated goals and a preliminary assessment of the percentage of funds to be used for each type of action;
- ❖ How the State will consider the potential beneficial impact of the selected mitigation actions on air quality in areas within the State that bear a disproportionate share of the air pollution burden;

- ❖ The expected ranges of emission benefits that would be realized by implementation of the mitigation actions identified in the plan; and
- ❖ The process by which the State will seek and consider public input on the Mitigation Plan.

The Beneficiary Mitigation Plan need only provide the level of detail reasonably ascertainable at the time of submission. The plan is intended to provide the public with insight into Nebraska's high-level vision for use of the mitigation funds and information about the specific uses for which funding is expected to be requested. Nothing in this plan is binding, nor does it create any rights in any person to claim an entitlement of any kind.

Nebraska must submit this Beneficiary Mitigation Plan to the Trustee not later than 30 days prior to submitting its first funding request. Nebraska may adjust its goals and specific spending plans at its discretion by providing an updated Beneficiary Mitigation Plan to the Trustee. Such adjustments may be made based on changes in the availability and costs of technologies, future changes in air quality conditions across affected areas, and cumulative experience with various mitigation actions.

Nebraska's Overall Goals

Nebraska's overall goal is to achieve significant, sustainable, and cost-effective reductions in NOx emissions to improve air quality in the state. Other goals of the plan include:

- Achieving reductions in diesel engine emissions especially in areas of the state that bear an undue share of the impact of NOx emissions, while also providing funding for emission reduction projects in other areas of the state;
- Achieving reductions in ground level ozone, for which NOx is a precursor, and which occurs in some areas of the state at levels approaching those that would violate federal ambient air quality standards;
- Providing project funding to both public and private entities;
- Spurring investment in cleaner alternative-fuel vehicles and infrastructure;
- Supporting long-term investments in the zero-emission transportation sector in Nebraska.

Selected Eligible Mitigation Actions

Several mitigation actions authorized by the Trust (4 and 5) are not available to Nebraska as an inland state without marine ports. NDEE has assessed the remaining categories in the context of Nebraska's air pollution issues, population distribution, existing transportation infrastructure, estimated project cost-effectiveness, potential public health benefits, and public comments. Table 2 and Figure 2 on the next page present the project types initially selected for funding in Nebraska and the percentage of funds expected to be allocated to each.

| Category | Action | Percent | Dollars |
|----------|---|---------|-----------------|
| 2 | Transit Bus Alternative Fuel Replacements | 10% | \$1,224,835 |
| 2 | School Bus Diesel & Propane Replacements | 52% | \$6,369,141 |
| 9 | Zero Emission Vehicle (ZEV) Charging Infrastructure | 15% | \$1,818,224 |
| 10 | DERA: Irrigation engines, Refuse Trucks | 18% | \$2,223,729 |
| | Administrative Costs* | 5% | \$612,417 |
| | TOTAL | 100% | \$12,248,347.48 |

* The State Mitigation Trust agreement allows reimbursement of administrative costs up to 15% of each funded project.

Table 2. Selected mitigation actions and funding percentages.

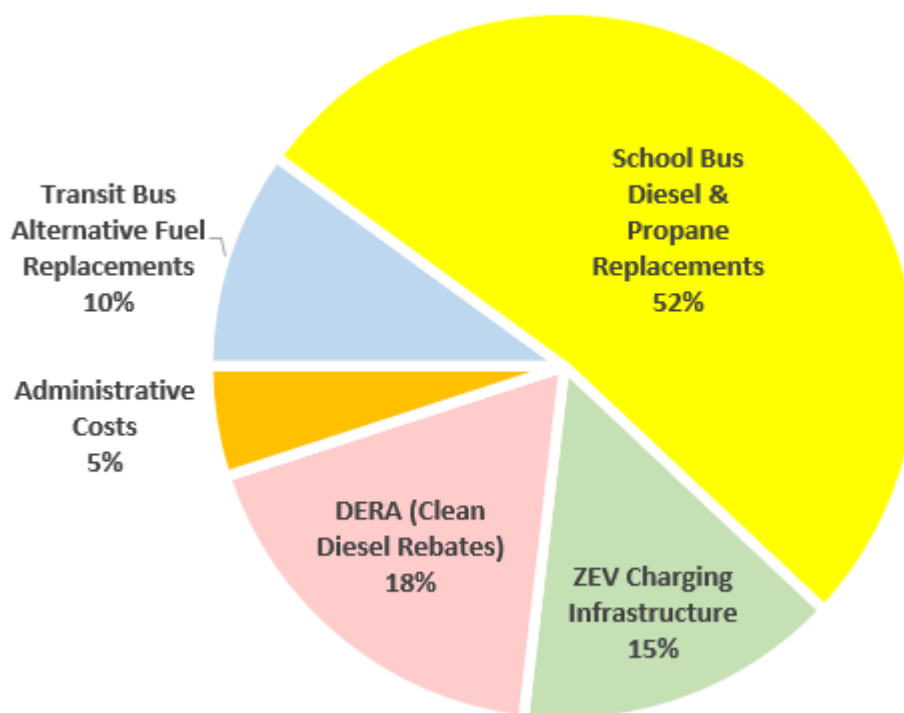


Figure 2. Pie chart showing selected mitigation actions and assigned funding percentages.

Transit Bus Alternative Fuel Replacements (10%)

NDEE is utilizing 10% of Nebraska’s initial allocation, or approximately \$1.2 million, to provide rebates to replace four diesel public transit buses (Class 4 to 8, with engine model year 2009 or older) as authorized under Eligible Mitigation Action 2. Entities eligible for this funding were the public transit agencies of the Omaha metropolitan area (Metro Area Transit) and Lincoln (StarTran). Funding was available to replace diesel buses with new buses fueled by compressed natural gas (CNG) or with new electric buses. Replaced vehicles and engines must be scrapped.

Both StarTran and Metro have begun transitioning their bus fleets from diesel to CNG. By spring 2018, StarTran expected to have 13 out of 67 full-size buses using CNG, which has lower

emissions than diesel, operates more quietly, and on average costs less per gallon than diesel². StarTran has also recently received grants to purchase ten electric buses and charging stations².

However, both agencies still have many diesel buses eligible for replacement. For example, as of April 2016 StarTran had 42 diesel buses with model year 2006 or older³. Omaha Metro Transit currently has approximately 25 older diesel buses eligible for replacement by CNG and electric buses⁴. Funding from the State Mitigation Trust will help both agencies accelerate the replacement of these older diesel buses.

NDEE has awarded \$724,901 to Omaha Metro to partially fund the replacement of two diesel transit buses with two CNG-fueled Bus Rapid Transit vehicles. Lincoln StarTran has been awarded \$489,934 to partially fund the replacement of two diesel buses with two battery-electric buses.

School Bus Diesel and Alternative Fuel Replacements (25%)

NDEE proposes to use 52% of Nebraska's initial allocation, or approximately \$6.4 million, to provide rebates to replace diesel school buses (Class 4 to 8, with engine model year 2009 or older), as authorized under Eligible Mitigation Action 2. Entities eligible for this funding are public school districts and private schools in Nebraska. Funding is available to replace diesel buses with new buses fueled by diesel, propane, or compressed natural gas (CNG). Replaced buses and engines must be scrapped.

NDEE anticipates providing public school districts with funding covering 50% of the base cost of a new cleaner-burning diesel bus, or 60% of the base cost of a new propane or CNG bus meeting stricter NOx emissions standards. Private schools will be eligible for a maximum reimbursement of 25% of the base cost of a new diesel, propane, or CNG bus as prescribed in the State Mitigation Trust agreement. Because propane is readily available in rural areas, and propane fueling infrastructure is less expensive than CNG fueling equipment, NDEE believes that smaller public school districts interested in converting to a cleaner alternative fuel would be more likely to choose propane.

The proposed funding allocation would aid in the replacement of up to 145 diesel public school buses depending on the choice of replacement bus fuel.

² City Advances Two Sustainability Efforts (press release):
<https://lincoln.ne.gov/city/mayor/media/2020/022720.htm>

³ Lincoln Transit Development Plan, Final Report, April 2016, available at
<http://lincoln.ne.gov/city/pworks/startran/tdp/pdf/tdp-final-report.pdf?april2016>

⁴ Personal communication from Metro Area Transit, November 2017.

Zero Emission Vehicle Charging Infrastructure (10%)

NDEE expects to utilize 15% of Nebraska’s initial allocation, or approximately \$1.8 million, to provide rebates to facilitate the acquisition, installation, operation, and maintenance of light-duty electric vehicle charging stations in Nebraska, as authorized by Eligible Mitigation Action 9. Priority projects will include installation of DC fast-charging stations along highway corridors and community charging stations available to the public. NDEE anticipates reimbursing 50% of the costs for charging stations available to the public on government owned or non-government owned property. The Department expects that this option will fund charging stations at over 30 new locations.

As noted previously, a majority of respondents during the initial public comment period favored use of State Mitigation Trust funds for funding electric vehicle infrastructure in Nebraska. Battery-electric vehicles are becoming an increasing factor in the transportation mix both nationally and in Nebraska. As shown in Figure 3 below, registrations of battery-electric vehicles in Nebraska increased from 192 in mid-2013 to 588 in mid-2017, and the rate of new registrations is increasing.

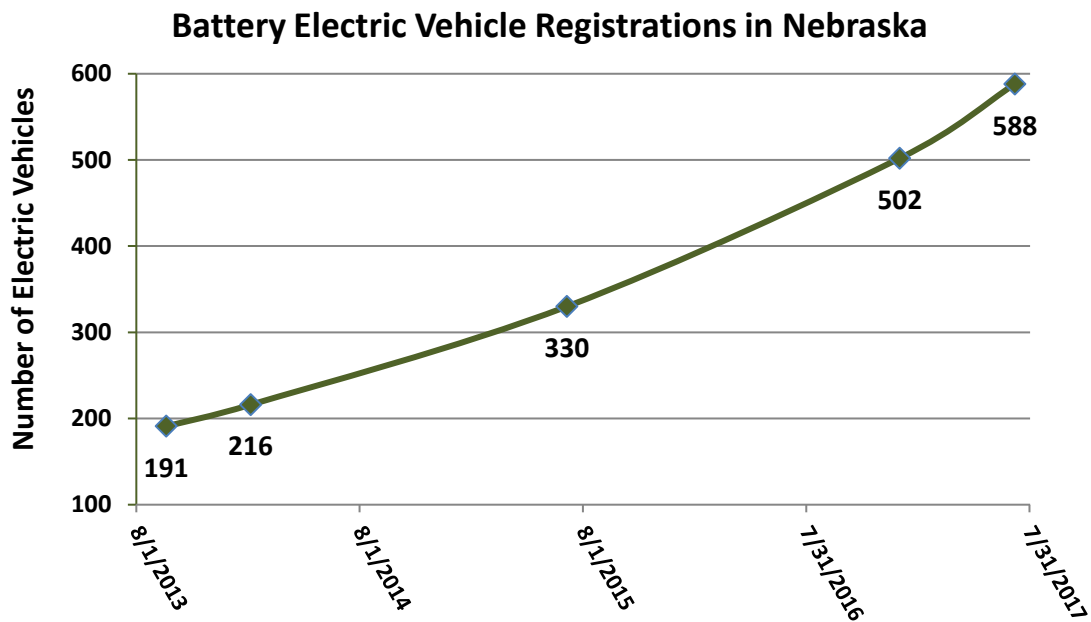


Figure 3. Graph of the number of registered battery-electric vehicles in Nebraska from 2013 through 2017. Data courtesy of the Nebraska Department of Motor Vehicles and the Nebraska Community Energy Alliance.

NDEE believes that devoting the specified portion of the Trust funds to electric vehicle charging stations will complement efforts in other states to facilitate long-distance travel by battery-electric vehicles along major transportation corridors.

Diesel Emissions Reduction Act (25%)

As provided by Eligible Mitigation Action 10, Nebraska may also use funds from the State Environmental Mitigation Trust as a voluntary state match or overmatch for annual EPA funding of the Nebraska Clean Diesel Program authorized by the Diesel Emissions Reduction Act (DERA). NDEE proposes to use 18% of Nebraska’s initial allocation, or approximately \$2,2 million, for this option.

The DERA option allows use of Trust funds for any actions that are authorized by the DERA program, whether or not they are specifically authorized by the other Eligible Mitigation Actions in the Trust Agreement. The DERA program provides a wider range of diesel emission reduction actions than the Trust, including engine replacements for non-road diesel equipment, such as construction equipment, farm equipment, and agricultural irrigation engines. Available actions and maximum reimbursement percentages under the DERA program are shown in Table 3 below. Historically, NDEE has used DERA funding for early replacement of diesel vehicles such as school buses, to perform diesel exhaust control retrofit projects for public fleet vehicles, and other idle-reduction and emissions reduction projects for private vehicles and equipment.

| Diesel Vehicle / Equipment Type | Vehicle or Equipment Replacement | Diesel Engine Replacement | Diesel Engine Upgrade | Idle Reduction Technologies | Exhaust Controls | Cleaner Fuels Use |
|--|---|---|-----------------------|-----------------------------|------------------|--|
| Buses (school, transit) | 25% diesel 35% low NOx 45% electric | 40% diesel 50% low NOx 60% electric | | 25% (school bus) | 100% | Fuel Cost Differential (Only in combination with alternative fuel conversion, engine upgrade, vehicle replacement, or exhaust control.) |
| Medium to Heavy Duty Trucks | 25% diesel 35% low NOx 45% electric | 40% diesel 50% low NOx 60% electric | | 25% (long haul trucks) | 100%† | |
| Drayage Trucks (railyard use) | 50% | | | | 100% | |
| Locomotives | 25% diesel 45% electric | 40% diesel 60% electric | 40% | 40% | 100% | |
| Nonroad Engines* | 25% | 40% diesel 60% electric | 40% | 100% | 100% | |
| Truck Stop Parking Space Electrification | | | | 30% | | |

* Engines, equipment, and vehicles used in construction, cargo handling, agriculture, mining, or energy production.

† Aerodynamic technologies and low rolling resistance tires on long haul trucks can also be funded at 100% in combination with exhaust controls.

Table 3. Eligible vehicles/equipment, emission reduction methods, and maximum reimbursement percentages for actions under the Diesel Emissions Reduction Act (DERA)⁵.

⁵ National Clean Diesel Campaign, FY 2017 State Clean Diesel Grant Program Information Guide, <https://www.epa.gov/sites/production/files/2017-02/documents/fy17-state-program-guide-2017-02.pdf>.

Nebraska's provision of a voluntary match at least equal to the base DERA grant results in EPA providing a matching incentive equal to 50% of the base grant. For Fiscal Year 2019 EPA awarded Nebraska a base DERA grant of \$317,220. By providing an equivalent voluntary match using State Mitigation Trust funds, Nebraska will receive a matching incentive from EPA of \$158,600. Total DERA program funds for the current grant year will therefore be \$793,040. The amount of Trust funds NDEE proposes to utilize through the DERA program will increase funding for the Nebraska Clean Diesel Program in the following years. Nebraska's use of Trust funds for the DERA option beyond the current fiscal year is contingent upon reauthorization of the Diesel Emissions Reduction Act by Congress and upon future federal budget allocations.

Any Trust funds used in the DERA program must be used according to the guidelines and requirements of that program. Unlike most mitigation actions authorized by the Trust, the DERA program specifies the same maximum reimbursement percentages for projects with public or private funding recipients (and thus requires the same mandatory cost-share percentage from either). Voluntary matching funds from the State cannot be used to reduce the amount of the mandatory cost-share, but must be used to fund additional projects. Other federal funding sources also cannot be used to reduce the mandatory recipient cost-share for a DERA project.

NDEE proposes to use State Mitigation Trust funds to augment the Nebraska Clean Diesel Program in order to fund projects that are not authorized by Eligible Mitigation Actions 1 through 9 of the Trust, and for Trust-eligible projects in which a higher reimbursement percentage can be provided under the DERA program. In the current fiscal year NDEE intends to use Trust funds for two such DERA projects:

1. Replacement of agricultural irrigation pump diesel engines with electric motors. This equipment is not eligible for replacement under Eligible Mitigation Actions 1 through 9 of the Trust. The DERA program provides for 60% reimbursement of the cost of the engine, installation, and the required electric power infrastructure. This option will provide benefits from Trust funds to the agricultural sector in Nebraska.
2. Replacement of diesel refuse trucks with new trucks powered by a compressed natural gas engine that meets the California Air Resources Board's Optional Low-NOx emissions standards (35% reimbursement). Most Nebraska municipalities contract with private refuse haulers for service. Although these replacements could be funded under Eligible Mitigation Action 1 of the Trust, under that option private companies would only be eligible for 25% reimbursement for replacement with a diesel or alternative-fuel truck. Use of this DERA action will provide an extra financial incentive to refuse haulers to choose an alternative-fuel vehicle with much lower NOx emissions than a diesel truck.

NDEE estimates that the proposed allocation of Trust funds could aid in the replacement of approximately 22 diesel refuse trucks and 47 diesel irrigation engines. These numbers would be reduced if other types of eligible DERA projects were funded in subsequent years.

Administrative Costs (5%)

The State Mitigation Trust agreement places a cap of 15% on administrative costs that states may charge to projects funded under the Trust. NDEE proposes to expend Nebraska’s initial allocation over a period of five years and to allocate up to 5% of this allocation, or approximately \$612,000, for administrative costs.

Nebraska will implement Trust projects transparently and in a cost-effective manner. Documentation of Trust expenses will be made available to the public in accordance with Nebraska Public Records statutes and Trust requirements. NDEE will account for Trust expenditures, conduct audits as necessary to ensure compliance with applicable requirements, and provide semi-annual reports to the Trustee as required by the State Mitigation Trust agreement. Documents submitted by project applicants in support of funding requests will also be made publicly available, subject to applicable laws governing the publication of confidential business information and personally identifiable information.

Geographic Distribution of Funding and Beneficial Impact on Areas with Undue Air Pollution Burden

The State Mitigation Trust agreement states that Trust funds are “to be used for environmental mitigation projects that reduce emissions of nitrogen oxides (“NOx”) where the Subject Vehicles were, are, or will be operated.”⁶ The Trust also requires the Beneficiary Mitigation Plan to describe how projects will benefit air quality in “areas that bear a disproportionate share of the air pollution burden.”⁷

Appendix C of this plan, entitled “Identification of Areas that Bear a Disproportionate Share of Air Pollution in Nebraska” presents details of the Department’s analysis of these concerns. NDEE has identified nine priority counties with a disproportionate share of NOx air pollution impact based on diesel NOx emissions per square mile and county population density: Buffalo, Cass, Dodge, Douglas, Hall, Lancaster, Sarpy, and Scottsbluff. These counties also are among the top twelve counties in terms of number of registrations of the subject Volkswagen diesel vehicles.

NDEE’s selection of Eligible Mitigation Actions was designed to provide emissions reductions in these priority counties while also balancing the environmental and economic benefits of funded projects among the state’s cities, counties, and statewide interests. Replacement of transit buses in Lancaster County and in the Omaha metropolitan area will provide direct NOx emissions reductions in priority counties with high population density. Projects in the other

⁶ State Mitigation Trust agreement, Appendix D, Purpose and Recitals.

⁷ State Mitigation Trust agreement, Appendix D, Paragraph 4.1.

funding categories will be open to applicants from any location in Nebraska, but preference may be given to projects located in the priority counties.

Emission Reduction Benefits

NDEE expects that the selected mix of mitigation actions will achieve significant reductions in NOx emissions from diesel engines, as well as reductions in emissions of other diesel pollutants such as fine particulates and carbon monoxide. Reductions in NOx emissions should also reduce production of secondary ground level ozone in the atmosphere.

The Department estimated the reduction in NOx emissions for a hypothetical set of vehicle and equipment replacement projects consisting of Low-NOx CNG transit bus replacements, diesel and propane public school bus replacements, and DERA replacement projects including Low-NOx CNG refuse trucks and electric irrigation pump motors. Emission reductions were estimated using the U.S. Environmental Protection Agency’s Diesel Emissions Quantifier⁸. As shown in Table 5 below, this set of mitigation actions would be expected to reduce NOx emissions in Nebraska by a total of 35.4 tons annually.

| Replacement Vehicle/Equipment | Number | Unit Cost | Unit Reimbursement | Total Reimbursement | Tons NOx Reduced per Year |
|---------------------------------------|--------|-----------|--------------------|---------------------|---------------------------|
| Low-NOx CNG Transit Bus | 5 | \$500,000 | \$250,000 | \$1,250,000 | 4.4 |
| Diesel Public School Bus | 45 | \$85,000 | \$42,500 | \$1,912,500 | 7.2 |
| Low-NOx Propane Public School Bus | 20 | \$95,500 | \$57,300 | \$1,146,000 | 3.3 |
| Low-NOx CNG Refuse Truck (DERA) | 22 | \$300,000 | \$105,000 | \$2,310,000 | 10.8 |
| Electric Irrigation Pump Motor (DERA) | 47 | \$27,000 | \$16,200 | \$761,400 | 9.7 |
| TOTAL | | | | \$7,379,900 | 35.4 |

Table 4. Estimated reductions in NOx emissions from selected mitigation actions calculated using the EPA Diesel Emissions Quantifier, assuming replacement in 2019. A baseline model year of 2000 and default values for fuel volume, vehicle miles traveled, and idling hours were used for transit bus, refuse truck, and irrigation pump engine replacements. Calculations for school buses used average values for Nebraska buses replaced from 2013 to 2016 in the Nebraska Clean Diesel Program, including an average model year of 1998. The Diesel Emissions Quantifier currently does not include emission factors for CNG-fueled or Low-NOx propane engines; it calculates emissions reductions assuming a replacement diesel engine of the same model year. NOx emissions reductions were adjusted in the table by assuming that the equivalent diesel engine exactly meets current EPA NOx emissions of 0.2 grams NOx per bhp-hr, whereas the Low-NOx CNG and propane engines will meet the California Air Resources Board’s Optional Low-NOx standard of 0.02 grams NOx per bhp-hr.

⁸ <https://www.epa.gov/cleandiesel/diesel-emissions-quantifier-deq>

Public Comments on the Draft Plan

Comments on the Public Review Draft of Nebraska’s Volkswagen Environmental Trust Beneficiary Mitigation Plan were accepted from December 8 to December 31, 2017. Fourteen comments were received via the comment portal on the NDEE website or via e-mail. The table below summarizes the main recommendations provided in the comments and the number of comments in favor of each.

| Recommendation | In Favor |
|---|-----------------|
| Allocate the maximum 15% of funds for electric vehicle charging stations | 6 |
| Provide electric vehicles for public entities and public transportation | 5 |
| Support projects in areas with more air pollution & more offending VW diesels | 2 |
| Expand the DERA program to replace diesel irrigation engines with electric motors | 2 |
| Fund replacement of publicly-owned diesel vehicles | 1 |
| Fund replacement of diesel vehicles by natural gas-fueled vehicles | 1 |
| Fund alternative transportation and bike lanes | 1 |

Table 6. Tabulation of main recommendations in public comments on the Public Review Draft of Nebraska’s Volkswagen Environmental Trust Beneficiary Mitigation Plan.

No changes were made to the plan at this time in response to these comments. However, the Department will consider these recommendations along with ongoing demand for eligible projects to determine if modifications to the plan are warranted in the future.