

VW Beneficiary Mitigation Plan for the State of New Mexico

New Mexico Environment Department

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DEFINITIONS/GLOSSARY OF TERMS

Definitions are from [Appendix D-2](#) of the Environmental Mitigation Trust Agreement for State Beneficiaries.

“Airport Ground Support Equipment” shall mean vehicles and equipment used at an airport to service aircraft between flights.

“All-Electric” shall mean powered exclusively by electricity provided by a battery, fuel cell, or the grid.

“Alternate Fueled” shall mean an engine, or a vehicle or piece of equipment that is powered by an engine, which uses a fuel different from or in addition to gasoline fuel or diesel fuel (e.g., CNG, propane, diesel-electric Hybrid).

“Certified Remanufacture System or Verified Engine Upgrade” shall mean engine upgrades certified or verified by the U.S. Environmental Protection Agency (EPA) or the California Air Resources Board (CARB) to achieve a reduction in emissions.

“Class 4-7 Local Freight Trucks (Medium Trucks)” shall mean trucks, including commercial trucks, used to deliver cargo and freight (e.g., courier services, delivery trucks, box trucks moving freight, waste haulers, dump trucks, concrete mixers) with a Gross Vehicle Weight Rating (GVWR) between 14,001 and 33,000 lbs.

“Class 4-8 School Bus, Shuttle Bus, or Transit Bus (Buses)” shall mean vehicles with a Gross Vehicle Weight Rating (GVWR) greater than 14,001 lbs. used for transporting people. See definition for School Bus below.

“Class 8 Local Freight, and Port Drayage Trucks (Eligible Large Trucks)” shall mean trucks with a Gross Vehicle Weight Rating (GVWR) greater than 33,000 lbs. used for port drayage and/or freight/cargo delivery (including waste haulers, dump trucks, concrete mixers).

“CNG” shall mean Compressed Natural Gas.

“Drayage Trucks” shall mean trucks hauling cargo to and from ports and intermodal rail yards.

“EPA” shall mean the U.S. Environmental Protection Agency

“Forklift” shall mean nonroad equipment used to lift and move materials short distances; and generally, includes tines to lift objects. Eligible types of forklifts include reach stackers, side loaders, and top loaders.

“Freight Switcher” shall mean a locomotive that moves rail cars around a rail yard as compared to a line-haul engine that moves freight long distances.

“Generator Set” shall mean a switcher locomotive equipped with multiple engines that can turn off one or more engines to reduce emissions and save fuel depending on the load it is moving.

“Government” shall mean a State or local government agency (including a school district, municipality, city, county, special district, transit district, joint powers authority, or port authority, owning fleets purchased with government funds), and a tribal government or native village.

“Gross Vehicle Weight Rating (GVWR)” shall mean the maximum weight of the vehicle, as specified by the manufacturer. GVWR includes total vehicle weight plus fluids, passengers, and cargo.

Class 1: < 6000 lb.

Class 2: 6001-10,000 lb.

Class 3: 10,001-14,000 lb.

Class 4: 14,001-16,000 lb.

Class 5: 16,001-19,500 lb.

Class 6: 19,501-26,000 lb.

Class 7: 26,001-33,000 lb.

Class 8: > 33,001 lb.

“Hybrid” shall mean a vehicle that combines an internal combustion engine with a battery and electric motor.

“Infrastructure” shall mean the equipment used to enable the use of electric powered vehicles (e.g., electric vehicle charging station).

“Intermodal Rail Yard” shall mean a rail facility in which cargo is transferred from drayage truck to train or vice-versa.

“Port Cargo Handling Equipment” shall mean rubber-tired gantry cranes, straddle carriers, shuttle carriers, and terminal tractors, including yard hostlers and yard tractors that operate within ports.

“Plug-in Hybrid Electric Vehicle (PHEV)” shall mean a vehicle that is similar to a Hybrid but is equipped with a larger, more advanced battery that allows the vehicle to be plugged in and recharged in addition to refueling with gasoline. This larger battery allows the car to be driven on a combination of electric and gasoline fuels.

“Repower” shall mean to replace an existing engine with a newer, cleaner engine or power source that is certified by EPA and, if applicable, the California Air Resources Board (CARB), to meet a more stringent set of engine emission standards. Repower includes, but is not limited

to, diesel engine replacement with an engine certified for use with diesel or a clean alternate fuel, diesel engine replacement with an electric power source (e.g., grid, battery), diesel engine replacement with a fuel cell, diesel engine replacement with an electric generator(s) (genset), diesel engine upgrades in Ferries/Tugs with an EPA Certified Remanufacture System, and/or diesel engine upgrades in Ferries/Tugs with an EPA Verified Engine Upgrade. All-Electric and fuel cell Repowers do not require EPA or CARB certification.

“School Bus” shall mean a Class 4-8 bus sold or introduced into interstate commerce for purposes that include carrying students to and from school or related events. May be Type A-D.

“Scrapped” shall mean to render inoperable and available for recycle, and, at a minimum, to specifically cut a 3-inch hole in the engine block for all engines. If any Eligible Vehicle will be replaced as part of an eligible project, scrapped shall also include the disabling of the chassis by cutting the vehicle’s frame rails completely in half.

“Tier 0, 1, 2, 3, 4” shall refer to corresponding EPA engine emission classifications for nonroad, locomotive, and marine engines.

“Tugs” shall mean dedicated vessels that push or pull other vessels in ports, harbors, and inland waterways (e.g., tugboats and towboats).

“Zero Emission Vehicle (ZEV)” shall mean a vehicle that produces no emissions from the on-board source of power (e.g., All-Electric or hydrogen fuel cell vehicles).

BENEFICIARY MITIGATION PLAN

This Beneficiary Mitigation Plan (Plan) for the State of New Mexico (State) summarizes how the State plans to use funds (\$17,982,660.90) allocated under the Volkswagen Environmental Mitigation Trust Agreement for State Beneficiaries (Trust). Every state, the District of Columbia, Puerto Rico, and federally recognized tribes may become Beneficiaries. Beneficiaries of the Trust receive allocations from the Trust to fund specified and pre-approved mitigation projects. The Trustee (Wilmington Trust, N.A.) shall approve any funding request that meets the requirements of the Trust.

This Plan is intended to provide the public with insight into the State's high-level vision for use of the mitigation funds and information about the specific uses for which funding is expected to be requested. The goals of this Plan are non-binding, nor does it create any rights in any person to claim an entitlement of any kind. The State may adjust these goals and specific spending plans at its discretion and, if so, shall provide the Trustee with updates to the Plan. The Plan will be revised, as appropriate, to reflect input received during the public comment period.

After the initial round of funding, and as part of its periodic evaluations, New Mexico proposes to revise the Plan to reflect changes in project demand and priorities. The State is proposing to amend the Plan to direct unallocated funds towards the replacement of diesel-fueled vehicles with alternate fueled and all-electric vehicles. The State remains committed to allocating 15% of the total funding (approximately \$2.7 million) towards light duty zero emission vehicle (LDZEV) infrastructure, but will reduce the amount of funding available through the Diesel Emissions Reduction Act (DERA) option to approximately 1.8% (\$317,553).

The State shall provide the Trustee with, and make available, on the New Mexico Environment Department's (NMED) Volkswagen Settlement webpage, any proposed revisions to this Plan. The NMED Volkswagen Settlement website is available at <https://www.env.nm.gov/air-quality/vw-settlement/>.

This plan is not a solicitation for projects and does not provide specific details on the application or selection process. Information pertaining to the solicitation of projects will be available on the Department's website following the submission and approval of this Plan to the Trustee.

MITIGATION PLAN AND GOALS

[Appendix D](#) of the Trust directs the State to develop this Plan and to summarize how the allocated funds will be used. The State must include in their plan the following:

1. The State's overall goal for the use of the funds;
2. The categories of Eligible Mitigation Actions the State anticipates will be appropriate to achieve the stated goals and the preliminary assessment of the percentages of funds anticipated to be used for each type of Eligible Mitigation Action;

3. A description of how the State will consider the potential beneficial impact of the selected Eligible Mitigation Actions on air quality in areas that bear a disproportionate share of the air pollution burden within its jurisdiction; and
4. A general description of the expected ranges of emission benefits the State estimates would be realized by implementation of the Eligible Mitigation Actions identified in the Beneficiary Mitigation Plan.

Goals

The overarching goal is to protect New Mexico's environment and the health of our citizens. The Trust funds allow the State the opportunity to offset (mitigate) the impact of excess nitrogen oxide (NO_x) emissions associated with the affected vehicles registered within the state. The reduction of NO_x from mobile sources achieves the intended use of the Trust funds by preventing the deterioration of air quality, ensuring the health and safety of the inhabitants of the state, and promoting visibility improvement within the state. Implementation of diesel NO_x reduction projects using Trust funds will have immediate and long-lasting benefits.

The State will submit project proposals that will reduce or eliminate emissions of NO_x, focusing on the most cost-effective projects that will maximize emission reductions. The following list indicates the State's overall goals utilizing the Trust funds. This list is not meant to be inclusive. The State may consider other qualifications and factors when determining whether to submit projects to the Trustee for funding.

1. Focus on funding projects that repower or replace older diesel-fueled vehicles and engines with those that are all-electric or utilize an alternate fuel.
2. Focus on vehicles, engines, and equipment operating or located in or near areas that bear a disproportionate share of the air pollution burden (priority areas) or areas lacking critical EV infrastructure, such as:
 - a. Distribution centers;
 - b. Multimodal centers;
 - c. Ports;
 - d. Rail and bus terminals;
 - e. Airports; and
 - f. Environmental justice areas.
3. Prioritize projects located in or near areas that are in nonattainment of National Ambient Air Quality Standards (NAAQS) for ozone, particulate matter (PM), or nitrogen dioxide (NO₂).
4. Focus on projects located in areas with high population density and high traffic density. In New Mexico, areas of high population density are often the areas with the poorest air quality.
5. Focus on a complete statewide electric vehicle charging network with emphasis on the rural areas least likely to attract competitive electric vehicle charging infrastructure installations.

Emissions Associated with Diesel-Fueled Vehicles

According to the EPA's 2014 National Emissions Inventory (NEI), emissions from highway and non-road diesel-powered mobile sources (including rail and aviation) accounted for approximately 98,970 tons per year (tpy) of NO_x in New Mexico. Revised emission standards for diesel vehicles and equipment promulgated by the EPA, applicable to Model Year 2007 and newer vehicles and engines, will ensure that newer medium-duty and heavy-duty diesel engines will be less polluting. Many older diesel engines, however, can operate for 25 to 30 years before replacement is necessary. Thus, it may be many years before existing equipment is replaced with newer, cleaner equipment due to typical fleet turnover. It is likely that a large population of older diesel engines unaffected by the new federal standards will continue to operate in New Mexico well into the future.

The State, through its project selection process, will strive to balance the environmental and societal benefits among New Mexico's cities, counties, and statewide interests for all New Mexico citizens who are impacted by NO_x emissions generated by on-road diesel-fueled vehicles.

Many strategies and programs exist to reduce emissions from these older engines. Replacing, retrofitting, or repowering many older diesel vehicles and engines are cost-effective strategies to reduce emissions of NO_x and volatile organic compounds (VOC), which are precursor pollutants for the formation of fine particulate matter (particulate matter under 2.5 microns in diameter, or PM_{2.5}) and ground-level ozone, by as much as 90% or more. The Trust will enable the State to fund more of these types of projects than can currently be funded through existing programs.

Pollutants of Concern

NO_x

Nitrogen Oxides (NO_x) are a family of poisonous, highly reactive gases. These gases form when fuel is burned at high temperatures. NO_x pollution is emitted by automobiles, trucks and various non-road vehicles (e.g., construction equipment, boats, etc.) as well as industrial sources such as power plants, industrial boilers, cement kilns, and turbines. NO_x often appears as a brownish gas. It is a strong oxidizing agent and plays a major role in the atmospheric reactions with VOCs that produce ground-level ozone (smog) on hot summer days.

Diesel engines operate at a higher temperature and pressure than gasoline engines. These conditions favor the production of NO_x gases.

The NMED is using data from the U.S. EPA's 2014 National Emission Inventory (NEI) to identify the state's NO_x emissions, specifically NO_x emissions from diesel-powered vehicles. Review of the NEI will assist the NMED in identifying those areas within the state that are impacted by mobile source diesel emissions.

The 2014 NEI estimated that more than 98,970 tons of NO_x were emitted from mobile sources in New Mexico. Figure 4 illustrates the major NO_x sources within the state and their percentage contribution. Figure 5 breaks down the statewide mobile NO_x sources and their percent contribution.

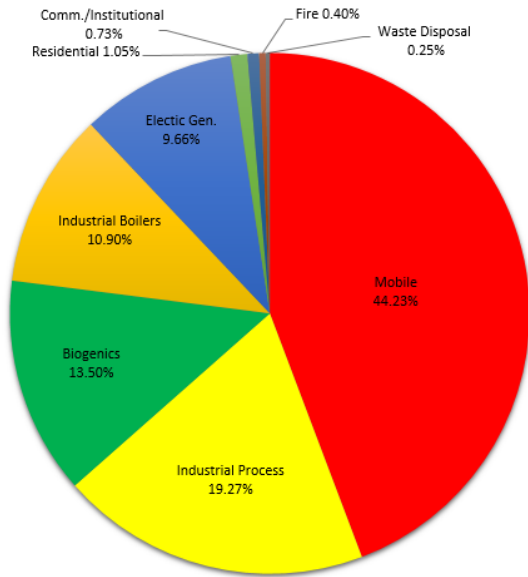


Figure 4: Statewide NO_x Source Contribution

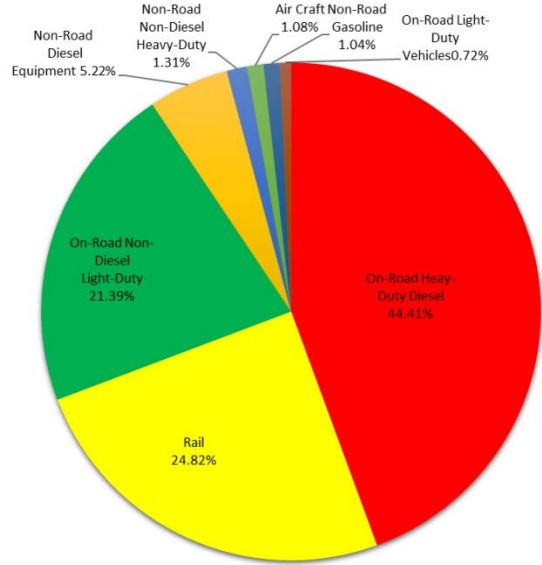


Figure 5: Statewide Mobile Source NO_x Contribution

Mobile source emissions made up 44% of the total statewide NO_x emissions. Statewide NO_x emissions from diesel-powered vehicles and equipment were estimated at 74,000 tons of NO_x, with on-road heavy-duty diesel making up 44%, or 43,860 tons, of the total. The high percentage of on-road heavy-duty diesel is attributable to the state's classification as a Freight Bridge State. The majority of diesel truck traffic passes through the state in an east/west direction. Figure 6 provides the NO_x emissions, in tons for 2014, associated with on-road heavy-duty diesel-fueled vehicles and rail by county.

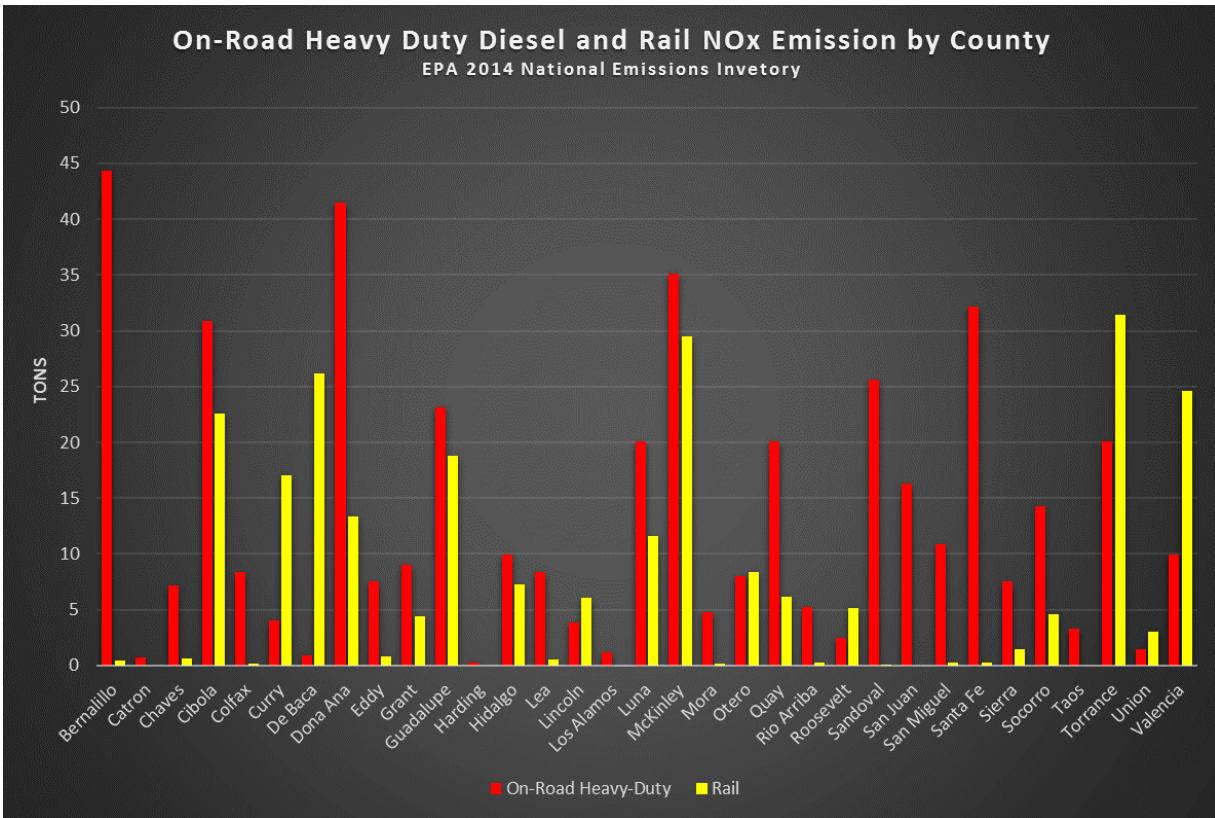


Figure 6: On-Road Heavy-Duty Diesel and Rail NO_x Emissions by County

Ozone

Ozone is formed from the combination of NO_x and volatile organic compounds (VOCs) in the presence of sunlight. Excessive levels of ozone aggravate respiratory conditions. People most at risk from breathing air containing ozone include people with asthma, children, older adults, and people who are active outdoors, especially outdoor workers.

Children are at greatest risk from exposure to ozone because their lungs are still developing and they are more likely to be active outdoors when ozone levels are high, which increases their exposure. Children are also more likely than adults to have asthma.

Two air monitors in southern Doña Ana County (one in Santa Teresa near the border crossing and one in Sunland Park at the Desert View Elementary School) have shown exceedances of the ozone NAAQS, based on monitor data from 2014 – 2016. These monitors are located near El Paso, Texas, and Ciudad Juárez, Chihuahua, Mexico. All other monitors operated by the New Mexico Environment Department show compliance with the National Ambient Air Quality Standard (NAAQS); however, ozone measured in Carlsbad, Hobbs, and at Navajo Lake is close to the NAAQS.

Particulate Matter

Diesel particulate matter (PM, also abbreviated DPM) is a complex mixture of solid and liquid material. The particles in diesel exhaust are of special concern because, due to their respirable size, they can penetrate deep into human lungs. The composition of DPM includes many species that are known for their adverse health effects, including several carcinogens. Health effects most often linked with particulate pollution, from diesel and other sources, include an increase in death due to respiratory and cardiovascular disease and worsening of symptoms in people with asthma.

There is presently one nonattainment area for particulate matter 10 microns or less in size (PM₁₀) within Doña Ana County. An area of Anthony, NM, which lies on the border of Texas and New Mexico, is a PM₁₀ nonattainment area. This area was designated nonattainment for PM₁₀ by the EPA in 1991. Windblown dust frequently results in exceedances of the NAAQS for PM₁₀ and PM_{2.5} in southern Doña Ana and in Luna counties during the spring season. Other areas of New Mexico also can be affected by dusty conditions during periods of high winds.

Eligible Mitigation Projects

NMED will ensure that funded projects support the state's Beneficiary Mitigation Plan goals. The Trust provides Beneficiaries 10 categories of Eligible Mitigation Actions from which to choose.

1. Class 8 Local Freight Trucks and Port Drayage Trucks (Eligible Large Trucks)
 - a. Eligible Large Trucks include 1992-2009 engine model year Class 8 Local Freight or Drayage. For Beneficiaries that have State regulations that already require upgrades to 1992-2009 engine model year trucks at the time of the proposed Eligible Mitigation Action, Eligible Large Trucks shall also include 2010-2012 engine model year Class 8 Local Freight or Drayage.
 - b. Eligible Large Trucks must be Scrapped.
 - c. Eligible Large Trucks may be Repowered with any new Alternate Fueled engine or All-Electric engine or may be replaced with any Alternate Fueled or All-Electric vehicle, with the engine model year in which the Eligible Large Trucks Mitigation Action occurs or one engine model year prior.
 - d. For Non-Government Owned Eligible Class 8 Local Freight Trucks, Beneficiaries may only draw funds from the Trust in the amount of:
 - i. Up to 40% of the cost of a Repower with an Alternate Fueled (e.g., CNG, propane, Hybrid) engine, including the costs of installation of such engine.
 - ii. Up to 25% of the cost of an Alternate Fueled (e.g., CNG, propane, Hybrid) vehicle.
 - iii. Up to 75% of the cost of a Repower with a new All-Electric engine, including the costs of installation of such engine, and charging infrastructure associated with the new All-Electric engine.
 - iv. Up to 75% of the cost of a new All-Electric vehicle, including charging

- infrastructure associated with the new All-Electric vehicle.
- e. For Non-Government Owned Eligible Drayage Trucks, Beneficiaries may only draw funds from the Trust in the amount of:
 - i. Up to 40% of the cost of a Repower with a new Alternate Fueled (e.g., CNG, propane, Hybrid) engine, including the costs of installation of such engine.
 - ii. Up to 50% of the cost of a new Alternate Fueled (e.g., CNG, propane, Hybrid) vehicle.
 - iii. Up to 75% of the cost of a Repower with a new All-Electric engine, including the costs of installation of such engine, and charging infrastructure associated with the new All-Electric engine.
 - iv. Up to 75% of the cost of a new all-electric vehicle, including charging infrastructure associated with the new All-Electric vehicle.
 - f. For Government Owned Eligible Class 8 Large Trucks, Beneficiaries may draw funds from the Trust in the amount of:
 - i. Up to 100% of the cost of a Repower with a new Alternate Fueled (e.g., CNG, propane, Hybrid) engine, including the costs of installation of such engine.
 - ii. Up to 100% of the cost of a new Alternate Fueled (e.g., CNG, propane, Hybrid) vehicle.
 - iii. Up to 100% of the cost of a Repower with a new All-Electric engine, including the costs of installation of such engine, and charging infrastructure associated with the new All-Electric engine.
 - iv. Up to 100% of the cost of a new All-Electric vehicle, including charging infrastructure associated with the new All-Electric vehicle.
2. Class 4-8 School Bus, Shuttle Bus, or Transit Bus (Eligible Buses)
- a. Eligible Buses include 2009 engine model year or older class 4-8 school buses, shuttle buses, or transit buses. For Beneficiaries that have State regulations that already require upgrades to 1992-2009 engine model year buses at the time of the proposed Eligible Mitigation Action, Eligible Buses shall also include 2010- 2012 engine model year class 4-8 school buses, shuttle buses, or transit buses.
 - b. Eligible Buses must be Scrapped.
 - c. Eligible Buses may be Repowered with any new Alternate Fueled or All-Electric engine, or may be replaced with any new Alternate Fueled or All-Electric vehicle, with the engine model year in which the Eligible Bus Mitigation Action occurs or one engine model year prior.
 - d. For Non-Government Owned Buses, Beneficiaries may draw funds from the Trust in the amount of:
 - i. Up to 40% of the cost of a Repower with a new Alternate Fueled (e.g., CNG, propane, Hybrid) engine, including the costs of installation of such engine.
 - ii. Up to 25% of the cost of a new Alternate Fueled (e.g., CNG, propane, Hybrid) vehicle.
 - iii. Up to 75% of the cost of a Repower with a new All-Electric engine, including the costs of installation of such engine, and charging infrastructure associated with

- the new All-Electric engine.
- iv. Up to 75% of the cost of a new All-Electric vehicle, including charging infrastructure associated with the new All-Electric vehicle.
- e. For Government Owned Eligible Buses, and Privately-Owned School Buses Under Contract with a Public-School District, Beneficiaries may draw funds from the Trust in the amount of:
 - i. Up to 100% of the cost of a Repower with a new Alternate Fueled (e.g., CNG, propane, Hybrid) engine, including the costs of installation of such engine.
 - ii. Up to 100% of the cost of a new Alternate Fueled (e.g., CNG, propane, Hybrid) vehicle.
 - iii. Up to 100% of the cost of a Repower with a new All-Electric engine, including the costs of installation of such engine, and charging infrastructure associated with the new All-Electric engine.
 - iv. Up to 100% of the cost of a new All-Electric vehicle, including charging infrastructure associated with the new All-Electric vehicle.

3. Freight Switchers

- a. Eligible Freight Switchers include pre-Tier 4 switcher locomotives that operate 1000 or more hours per year.
- b. Eligible Freight Switchers must be Scrapped.
- c. Eligible Freight Switchers may be Repowered with any new Alternate Fueled or All-Electric engine(s) (including Generator Sets), or may be replaced with any new Alternate Fueled or All-Electric (including Generator Sets) Freight Switcher, that is certified to meet the applicable EPA emissions standards (or other more stringent equivalent State standard) as published in the CFR for the engine model year in which the Eligible Freight Switcher Mitigation Action occurs.
- d. For Non-Government Owned Freight Switchers, Beneficiaries may draw funds from the Trust in the amount of:
 - i. Up to 40% of the cost of a Repower with a new Alternate Fueled (e.g., CNG, propane, Hybrid) engine(s) or Generator Sets, including the costs of installation of such engine(s).
 - ii. Up to 25% of the cost of a new Alternate Fueled (e.g., CNG, propane, Hybrid) Freight Switcher.
 - iii. Up to 75% of the cost of a Repower with a new All-Electric engine(s), including the costs of installation of such engine(s), and charging infrastructure associated with the new All-Electric engine(s).
 - iv. Up to 75% of the cost of a new All-Electric Freight Switcher, including charging infrastructure associated with the new All-Electric Freight Switcher.
- e. For Government Owned Eligible Freight Switchers, Beneficiaries may draw funds from the Trust in the amount of:
 - i. Up to 100% of the cost of a Repower with a new Alternate Fueled (e.g., CNG, propane, Hybrid) engine(s) or Generator Sets, including the costs of installation of such engine(s).

- ii. Up to 100% of the cost of a new Alternate Fueled (e.g., CNG, propane, Hybrid) Freight Switcher.
- iii. Up to 100% of the cost of a Repower with a new All-Electric engine(s), including the costs of installation of such engine(s), and charging infrastructure associated with the new All-Electric engine(s).
- iv. Up to 100% of the cost of a new All-Electric Freight Switcher, including charging infrastructure associated with the new All-Electric Freight Switcher.

4. Ferries/Tugs

- a. Eligible Ferries and/or Tugs include unregulated, Tier 1, or Tier 2 marine engines.
- b. Eligible Ferry and/or Tug engines that are replaced must be Scrapped.
- c. Eligible Ferries and/or Tugs may be Repowered with any new Tier 3 or Tier 4 diesel or Alternate Fueled engines, or with All-Electric engines, or may be upgraded with an EPA Certified Remanufacture System or an EPA Verified Engine Upgrade.
- d. For Non-Government Owned Eligible Ferries and/or Tugs, Beneficiaries may only draw funds from the Trust in the amount of:
 - i. Up to 40% of the cost of a Repower with a new Alternate Fueled (e.g., CNG, propane, Hybrid) engine(s), including the costs of installation of such engine(s).
 - ii. Up to 75% of the cost of a Repower with a new All-Electric engine(s), including the costs of installation of such engine(s), and charging infrastructure associated with the new All-Electric engine(s).
- e. For Government Owned Eligible Ferries and/or Tugs, Beneficiaries may draw funds from the Trust in the amount of:
- f. Up to 100% of the cost of a Repower with a new Alternate Fueled (e.g., CNG, propane, Hybrid) engine(s), including the costs of installation of such engine(s).
- g. Up to 100% of the cost of a Repower with a new All-Electric engine(s), including the costs of installation of such engine(s), and charging infrastructure associated with the new All-Electric engine(s).

5. Ocean Going Vessels (OGV) Shorepower

- a. Eligible Marine Shorepower includes systems that enable a compatible vessel's main and auxiliary engines to remain off while the vessel is at berth. Components of such systems eligible for reimbursement are limited to cables, cable management systems, shore power coupler systems, distribution control systems, and power distribution. Marine shore power systems must comply with international shore power design standards (ISO/IEC/IEEE 80005-1-2012 High Voltage Shore Connection Systems or the IEC/PAS 80005-3:2014 Low Voltage Shore Connection Systems) and should be supplied with power sourced from the local utility grid. Eligible Marine Shorepower includes equipment for vessels that operate within the Great Lakes.
- b. For Non-Government Owned Marine Shorepower, Beneficiaries may only draw funds from the Trust in the amount of up to 25% for the costs associated with the shore-side system, including cables, cable management systems, shore power

coupler systems, distribution control systems, installation, and power distribution components.

- c. For Government Owned Marine Shorepower, Beneficiaries may draw funds from the Trust in the amount of up to 100% for the costs associated with the shore-side system, including cables, cable management systems, shore power coupler systems, distribution control systems, installation, and power distribution components.

6. Class 4-7 Local Freight Trucks (Medium Trucks)

- a. Eligible Medium Trucks include 1992-2009 engine model year class 4-7 Local Freight trucks, and for Beneficiaries that have State regulations that already require upgrades to 1992-2009 engine model year trucks at the time of the proposed Eligible Mitigation Action, Eligible Trucks shall also include 2010- 2012 engine model year class 4-7 Local Freight trucks.
- b. Eligible Medium Trucks must be Scrapped.
- c. Eligible Medium Trucks may be Repowered with any new Alternate Fueled or All-Electric engine or may be replaced with any new Alternate Fueled or All-Electric vehicle, with the engine model year in which the Eligible Medium Trucks Mitigation Action occurs or one engine model year prior.
- d. For Non-Government Owned Eligible Medium Trucks, Beneficiaries may draw funds from the Trust in the amount of:
 - i. Up to 40% of the cost of a Repower with a new Alternate Fueled (e.g., CNG, propane, Hybrid) engine, including the costs of installation of such engine.
 - ii. Up to 25% of the cost of a new Alternate Fueled (e.g., CNG, propane, Hybrid) vehicle.
 - iii. Up to 75% of the cost of a Repower with a new All-Electric engine, including the costs of installation of such engine, and charging infrastructure associated with the new All-Electric engine.
 - iv. Up to 75% of the cost of a new All-Electric vehicle, including charging infrastructure associated with the new All-Electric vehicle.
- e. For Government Owned Eligible Medium Trucks, Beneficiaries may draw funds from the Trust in the amount of:
 - i. Up to 100% of the cost of a Repower with a new Alternate Fueled (e.g., CNG, propane, Hybrid) engine, including the costs of installation of such engine.
 - ii. Up to 100% of the cost of a new Alternate Fueled (e.g., CNG, propane, Hybrid) vehicle.
 - iii. Up to 100% of the cost of a Repower with a new All-Electric engine, including the costs of installation of such engine, and charging infrastructure associated with the new All-Electric engine.
 - iv. Up to 100% of the cost of a new All-Electric vehicle, including charging infrastructure associated with the new All-Electric vehicle.

7. Airport Ground Support Equipment

- a. Eligible Airport Ground Support Equipment includes:
 - i. Tier 0, Tier 1, or Tier 2 diesel powered airport ground support equipment; and
 - ii. Uncertified, or certified to 3 g/bhp-hr or higher emissions, spark ignition engine powered airport ground support equipment.
- b. Eligible Airport Ground Support Equipment must be Scrapped.
- c. Eligible Airport Ground Support Equipment may be Repowered with an All-Electric engine, or may be replaced with the same Airport Ground Support Equipment in an All-Electric form.
- d. For Non-Government Owned Eligible Airport Ground Support Equipment, Beneficiaries may only draw funds from the Trust in the amount of:
 - i. Up to 75% of the cost of a Repower with a new All-Electric engine, including costs of installation of such engine, and charging infrastructure associated with such new All-Electric engine.
 - ii. Up to 75% of the cost of a new All-Electric Airport Ground Support Equipment, including charging infrastructure associated with such new All-Electric Airport Ground Support Equipment.
- e. For Government Owned Eligible Airport Ground Support Equipment, Beneficiaries may draw funds from the Trust in the amount of:
 - i. Up to 100% of the cost of a Repower with a new All-Electric engine, including costs of installation of such engine, and charging infrastructure associated with such new All-Electric engine.
 - ii. Up to 100% of the cost of a new All-Electric Airport Ground Support Equipment, including charging infrastructure associated with such new All-Electric Airport Ground Support Equipment.

8. Forklifts and Port Cargo Handling Equipment

- a. Eligible Forklifts includes forklifts with greater than 8000 pounds lift capacity.
- b. Eligible Forklifts and Port Cargo Handling Equipment must be Scrapped.
- c. Eligible Forklifts and Port Cargo Handling Equipment may be Repowered with an All-Electric engine, or may be replaced with the same equipment in an All-Electric form.
- d. For Non-Government Owned Eligible Forklifts and Port Cargo Handling Equipment, Beneficiaries may draw funds from the Trust in the amount of:
 - i. Up to 75% of the cost of a Repower with a new All-Electric engine, including costs of installation of such engine, and charging infrastructure associated with such new All-Electric engine.
 - ii. Up to 75% of the cost of a new All-Electric Forklift or Port Cargo Handling Equipment, including charging infrastructure associated with such new All-Electric Forklift or Port Cargo Handling Equipment.
- e. For Government Owned Eligible Forklifts and Port Cargo Handling Equipment, Beneficiaries may draw funds from the Trust in the amount of:
 - i. Up to 100% of the cost of a Repower with a new All-Electric engine, including

costs of installation of such engine, and charging infrastructure associated with such new All-Electric engine.

- ii. Up to 100% of the cost of a new All-Electric Forklift or Port Cargo Handling Equipment, including charging infrastructure associated with such new All-Electric Forklift or Port Cargo Handling Equipment.
9. Light Duty Zero Emission Vehicle Supply Equipment. Each Beneficiary may use up to 15% of its allocation of Trust Funds on the costs necessary for, and directly connected to, the acquisition, installation, operation and maintenance of new light duty zero emission vehicle supply equipment for projects as specified below. Provided, however, that Trust Funds shall not be made available or used to purchase or rent real-estate, other capital costs (e.g., construction of buildings, parking facilities, etc.) or general maintenance (i.e., maintenance other than of the Supply Equipment).
- a. Light duty electric vehicle supply equipment includes Level 1, Level 2 or fast charging equipment (or analogous successor technologies) that is located in a public place, workplace, or multi-unit dwelling and is not consumer light duty electric vehicle supply equipment (i.e., not located at a private residential dwelling that is not a multi-unit dwelling).
 - b. Light duty hydrogen fuel cell vehicle supply equipment includes hydrogen dispensing equipment capable of dispensing hydrogen at a pressure of 70 megapascals (MPa) (or analogous successor technologies) that is located in a public place.
 - c. Subject to the 15% limitation above, each Beneficiary may draw funds from the Trust in the amount of:
 - i. Up to 100% of the cost to purchase, install and maintain eligible light duty electric vehicle supply equipment that will be available to the public at a Government Owned Property.
 - ii. Up to 80% of the cost to purchase, install and maintain eligible light duty electric vehicle supply equipment that will be available to the public at a Non-Government Owned Property.
 - iii. Up to 60% of the cost to purchase, install and maintain eligible light duty electric vehicle supply equipment that is available at a workplace but not to the general public.
 - iv. Up to 60% of the cost to purchase, install and maintain eligible light duty electric vehicle supply equipment that is available at a multi-unit dwelling but not to the general public.
 - v. Up to 33% of the cost to purchase, install and maintain eligible light duty hydrogen fuel cell vehicle supply equipment capable of dispensing at least 250 kg/day that will be available to the public.
 - vi. Up to 25% of the cost to purchase, install and maintain eligible light duty hydrogen fuel cell vehicle supply equipment capable of dispensing at least 100 kg/day that will be available to the public.

10. DERA Option. Beneficiaries may use Trust Funds for their non-federal voluntary match, pursuant to Title VII, Subtitle G, Section 793 of the DERA Program in the Energy Policy Act of 2005 (codified at 42 U.S.C. § 16133), or Section 792 (codified at 42 U.S.C. § 16132) in the case of tribes, thereby allowing Beneficiaries to use such Trust Funds for actions not specifically enumerated in this Appendix D-2, but otherwise eligible under DERA pursuant to all DERA guidance documents available through the EPA. Trust Funds shall not be used to meet the non-federal mandatory cost share requirements, as defined in applicable DERA program guidance, of any DERA grant.

The categories of Eligible Mitigation Actions that will be appropriate to achieving the State's goals are largely dependent on the availability of the category. Based on an initial assessment of the 10 categories of Eligible Mitigation Actions, two of them are not available in New Mexico. This initial assessment of the 10 categories does not preclude the State from funding a project in the future. Of the 10 Eligible Mitigation Actions identified in [Appendix D-2](#) of the Trust, those found in sections 4 (Ferries and Tugs) and 5 (Ocean Going Vessels Shorepower) are not applicable in New Mexico.

For this Beneficiary Mitigation Plan, NMED considers a fleet to be either a single eligible vehicle, engine, or piece of equipment or combination of vehicles, engines, or equipment as outlined above.

Eligible Mitigation Projects can be grouped into four categories. Those categories and the percentages at which the State plans to fund them include:

1. On-road fleet projects (76.2%);
2. Non-road fleet projects (7%);
3. DERA eligible projects (1.8%); and
4. Light-duty zero emission vehicle supply equipment (15%).

On-Road Fleet Projects

On-road fleet projects could include repowers or vehicle replacements with new alternative fuel or electric vehicles and engines. The State anticipates most of the projects within New Mexico will fall under the on-road fleet Eligible Mitigation Actions and is proposing to apply 76.2% of the Trust funds to this group. This group includes:

- Class 8 local freight trucks and port drayage truck;
- Class 4-8 school buses, shuttle or transit buses; and
- Class 4-7 local freight trucks.

Non-Road/Off-Road Fleet Projects

While the State is anticipating most of the projects will fall under the on-road Eligible Mitigation Actions, any non-road project applications will be subject to, and selected, through the same selection criteria as on-road projects. The State is proposing to apply seven percent of the Trust funding to this group. While some of the groups may not be well represented within New Mexico, should there be interest in these groups, as per the Trust, the State will modify its Plan to allow for other non-road projects. Airport ground support equipment is limited to electric repowers or replacements.

This group includes:

- Freight switchers;
- Airport ground support equipment; and
- Forklifts and port handling equipment.

DERA Eligible Fleet Projects

The DERA option and the other Eligible Mitigation Action Projects have some overlap; however, projects eligible under the DERA option include several types of retrofits, repowers, replacements, and retrofits not allowed under the Trust program. DERA-eligible projects are subject to the funding limits established by EPA for the DERA programs unless EPA allows for a waiver of those amounts. The maximum funding levels for these types of projects range between 25-100% for eligible project costs under this option.

The State is proposing to allocate 1.8% of the Trust funds to the DERA Option to meet the DERA State Clean Diesel Grant Program's non-federal voluntary match. In meeting the voluntary match equal to the base allocation offered by the EPA, the EPA will provide a matching incentive equal to 50% of the base allocation. The NMED has utilized DERA funding for diesel emission reduction on- and off-road projects on public and private fleets throughout New Mexico since the inception of the New Mexico Clean Diesel Program in 2008. The New Mexico Clean Diesel Program has effectively reduced NO_x and other pollutants associated with diesel-fueled vehicles providing immediate and long-lasting results. Projects completed under the DERA program in New Mexico include diesel emission reduction projects on fleets owned and operated by school districts, counties, municipalities, non-profit organizations, and private businesses.

Light-Duty Zero Emission Vehicle Supply Equipment

The State proposes to utilize the maximum allowable percentage (15%) of the allocated funds for light-duty zero emission vehicle (ZEV) supply equipment, including public and private electric vehicle charging equipment and hydrogen fuel cell refueling equipment. The ZEV supply equipment projects are also restricted to light-duty vehicle recharging/refueling locations, and

do not include recharging/refueling locations for medium- or heavy-duty vehicles or equipment.

[Appendix D-2](#) of the Trust identifies six specific stand-alone recharging/refueling setups that are eligible for funding and establishes the maximum funding levels for these types of projects (25 to 100%). The light-duty ZEV supply equipment projects are not linked to the electric vehicle/equipment replacement or repower projects listed in paragraphs 1-8 of [Appendix D-2](#).

Priority Areas

There are several types of areas that tend to bear a disproportionate share of the air pollution burden, referred to in this Plan as priority areas. Priority areas include areas designated nonattainment for a NAAQS, high population areas, high traffic density areas, environmental justice areas, and areas with numerous air pollutant sources. The State plans to focus its mitigation project selection on the types of priority areas discussed in this section. Under a competitive selection process, extra points will be awarded during scoring for projects located in or near a priority area.

High Population/High Traffic Density Areas

New Mexico contains several urban areas with greater volumes and density of vehicular traffic than the rest of the state. There are four metropolitan statistical areas in New Mexico: Albuquerque, Farmington, Las Cruces, and Santa Fe. A metropolitan statistical area is defined by the U.S. Office of Management and Budget as one or more adjacent counties that have at least one urban core area of at least 50,000 population, plus adjacent outlying counties that have a high degree of social and economic integration with the central county or counties as measured through commuting.

The City of Albuquerque Environmental Health Department’s Vehicle Pollution Management Division provided the following information, based on a review of the New Mexico Motor Vehicle Division records.

Table 1: Total Number of Affected Volkswagen Vehicles Registered in New Mexico, by County

County	Total	% by County
Bernalillo	994	38.83
Catron	11	0.43
Chaves	20	0.78
Cibola	19	0.74
Colfax	11	0.43
Curry	42	1.64
De Baca	1	0.04
Doña Ana	269	10.51
Eddy	27	1.05
Grant	32	1.25
Guadalupe	2	0.08

Harding	2	0.08
Hidalgo	3	0.12
Lea	24	0.94
Lincoln	12	0.47
Los Alamos	75	2.93
Luna	24	0.94
McKinley	30	1.17
Mora	7	0.27
Otero	100	3.91
Quay	5	0.20
Rio Arriba	39	1.52
Roosevelt	9	0.35
San Juan	57	2.23
San Miguel	33	1.29
Sandoval	215	8.40
Santa Fe	287	11.21
Sierra	19	0.74
Socorro	15	0.59
Taos	40	1.56
Torrance	23	0.90
Union	3	0.12
Valencia	110	4.30

NAAQS Nonattainment

There is only one area within the state not attaining the federal 2015 NAAQS standard for ozone. While all areas of the state are currently in attainment of the NO₂ NAAQS, NO_x emissions are a precursor pollutant for ozone. In October 2015, the federal government lowered the NAAQS for ozone from 0.075 parts per million (ppm) to 0.070 ppm. The New Mexico Environment Department and the City of Albuquerque Environmental Health Department both monitor areas of the state for ozone. The EPA designated the Sunland Park area as marginal nonattainment for the 2015 ozone NAAQS in June 2018 (see 83 FR 25776, June 4, 2018). While there is only one non-attainment area for ozone, there are other areas of the state (for example, Carlsbad) that have elevated ozone concentrations. There are also areas in New Mexico with ongoing fine particulate matter issues.

Environmental Justice

The EPA defines Environmental Justice as the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. Fair treatment means that no group of people should bear a disproportionate share of the negative environmental consequences resulting from industrial, governmental and commercial

operations or policies. Environmental justice areas commonly include communities and/or populations that are more adversely, disproportionately, and/or historically impacted by environmental issues than other communities because of geography, poverty, and similar types of factors. It is not uncommon to find environmental justice areas within and adjacent to high pollution areas.

High Pollution Areas

The following types of locations, and the surrounding areas, may be considered high pollution areas: ports, rail yards, terminals, distribution centers, truck stops, construction sites, and bus yards or depots.

Expected Ranges of Emission Benefits

Wide ranges of benefits are expected to be achieved from the selection and implementation of Eligible Mitigation Projects using alternate fuels. The expected ranges of emissions benefits realized by these projects are largely dependent on the project type, location, and cost.

To estimate the expected ranges of emission benefits, a representative sample of project types under each group described above was chosen.

These values do not indicate a commitment to the funding amounts or projects ultimately selected. The estimated emissions were calculated using Argonne National Laboratory's Heavy-Duty Vehicle Emissions Calculator (HDVEC) for on-road applications and the EPA's Diesel Emissions Quantifier for non-road applications. The example emission reduction benefits presented below are based on the proposed funding %ages presented above (see pages 9 & 10).

The following figures provide examples of the anticipated remaining life emission reductions from the replacement of one school bus with a new bus utilizing alternate fuels only; a comparison of emission reductions realized by the replacement of one vehicle in select groups; and the anticipated remaining life emission reductions for all groups in a selected scenario.

For simplicity purposes, the same inputs were used for calculating all estimated emission reduction benefits in the following illustrations. Inputs used in these illustrations consisted of taking 2006 model year vehicles out of service with a remaining life in service of eight years. These inputs were based on state requirements that limit school route buses to twelve (12) years of service, plus an additional eight years as spare buses.

Figure 1 provides a comparison of NO_x emissions benefits associated for alternate fuels for new school bus replacements, compared to emissions from a diesel-fueled school bus.

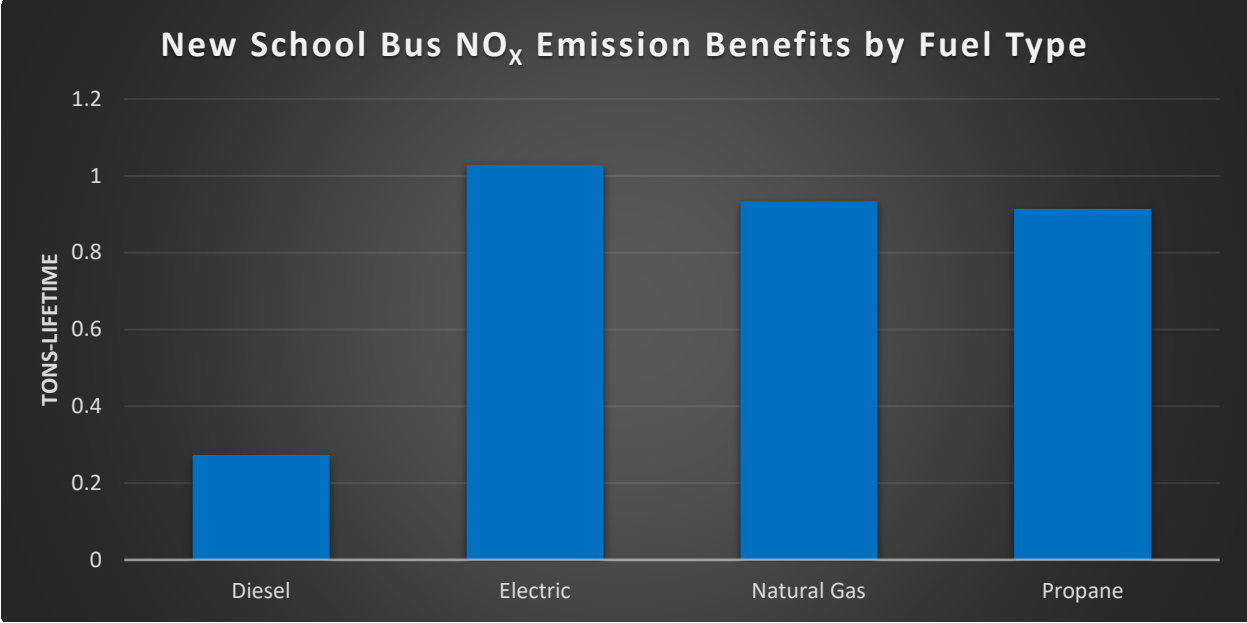


Figure 1: New School Bus NO_x Emission Comparison by Alternate Fuel Type

Figure 2 provides an illustration of the remaining life NO_x emission reductions for a single vehicle per group. For example, if one 2006 model year diesel refuse hauler is replaced with a 2019 model year refuse hauler, the HDVEC estimates the emission reduction benefits of approximately 2.5 tons from an all-electric hauler, and 2.3 tons from a natural gas-fueled hauler.

To realize the full potential of the Trust funds, it has been determined that a diversity of projects will be the best use of the funds and the interest of the state. Some projects provide for greater emission reductions while providing health benefits for a larger population and other projects may not provide as great of emission reductions, but target smaller more sensitive populations.

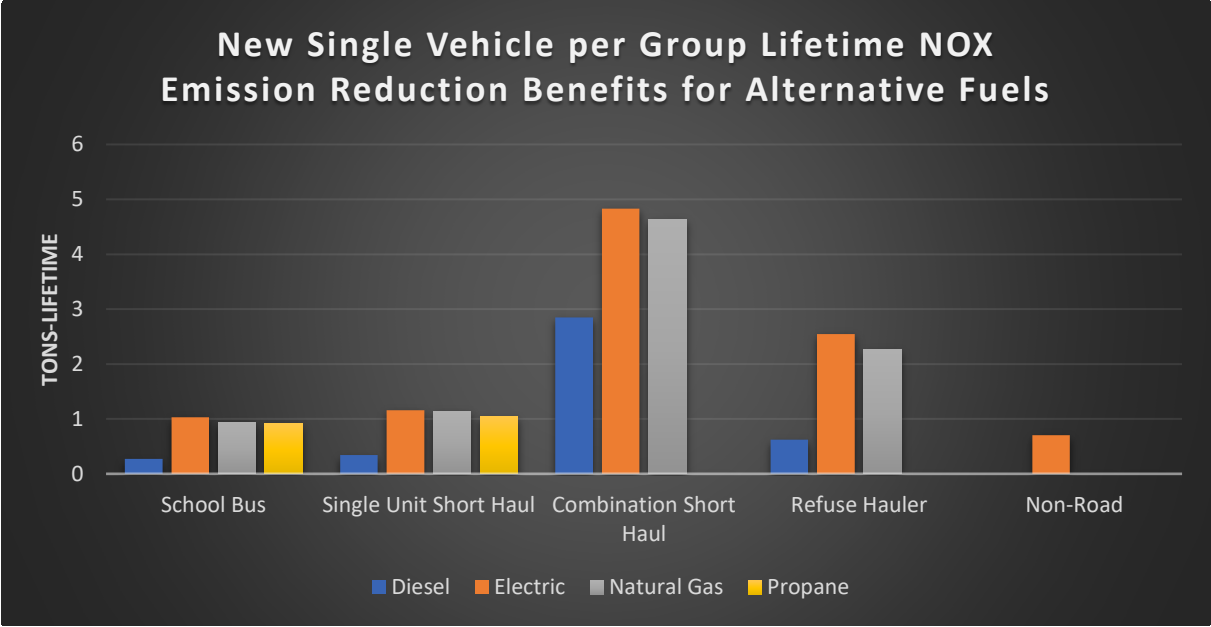


Figure 2: Lifetime Emission Reductions for Individual Vehicles per Group

Figure 3 provides an illustration of the remaining life NO_x reductions for the Eligible Mitigation Projects and their percentages under the proposed scenario above (i.e., 7 new liquid petroleum gas (LPG) buses, ten new compressed natural gas (CNG) refuse trucks, etc.). For the non-road emission reduction benefits, airport ground support equipment was selected as the example vehicle, and emissions reductions were estimated using the U.S. Environmental Protection Agency’s Diesel Emission Quantifier (DEQ). The criteria used in the DEQ for the emissions calculations were twelve airport ground support vehicles, 2006 model year with federal uncontrolled emission standards, and eight years remaining life, and replacing the old vehicle with an electric vehicle.

The DERA option assumes funds would be used for early vehicle replacements. Using an anticipated DERA funding amount of \$100,000 for the next five to six years, employing Trust funds for the DERA non-federal voluntary match and 25% funding per vehicle, one may conservatively estimate 50 early vehicle replacements.

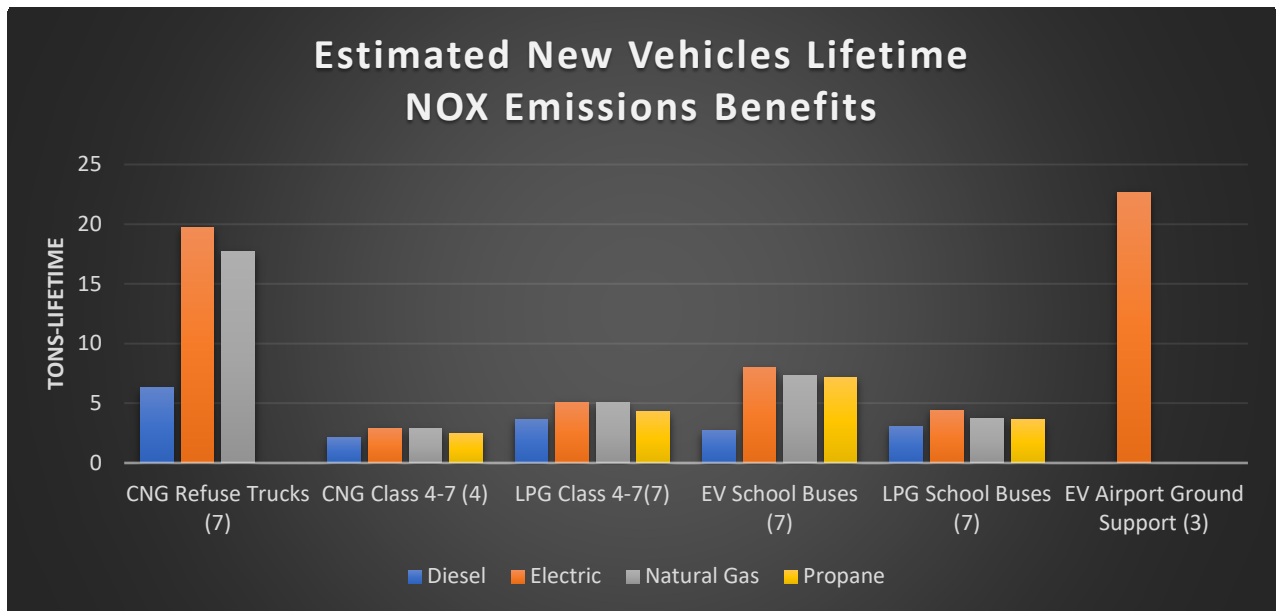


Figure 3: Anticipated New Vehicle Emission Benefits NO_x Reduction Per Group

Table 2 provides a potential scenario breakdown of the estimated number of vehicles, an estimated cost per vehicle and cost per group of vehicles.

Table 2: Estimated Number of Vehicles and Associated Costs

Eligible Mitigation Projects	Number of Vehicles	Estimated Cost/Vehicle	Cost per Group
CNG-Solid Waste	7	\$350,000.00	\$2,450,000.00
CNG-Class 6-7	4	\$200,000.00	\$800,000.00
LPG -Class 6-7	8	\$175,000.00	\$1,400,000.00
EV School Buses	7	\$350,000.00	\$2,450,000.00
LPG School Buses	7	\$150,000.00	\$1,050,000.00
Total On-road			\$8,150,000.00
Non-Road	3	\$200,000.00	\$600,000.00
DERA	50		\$539,479.83
Total			\$9,289,479.83

On-Road Fleet Projects

The Department analyzed a sample of eligible projects that included replacing Class 4-7 trucks, school buses, and solid waste vehicles with diesel and electric versions. The estimated total lifetime emission reductions from this group are approximately 40.14 (EV), 36.69 (CNG), and 17.55 (LNG) tons of NO_x.

Non-Road Fleet Projects

With the uncertainty of which groups may be included in this category, NMED only evaluated EV airport ground support equipment and electric recharging stations for the ground support equipment. The estimated total lifetime emission reductions from this group are approximately 22.67 tons of NO_x.

DERA-eligible Fleet Projects

The Department analyzed a sample of eligible projects that included replacements of school buses and short-haul trucks with diesel to diesel replacements. The estimated total lifetime emission reductions from this group are approximately 23 tons of NO_x.

EV Option

Due to the uncertainty of the types and numbers of EV charging stations and the number of electric vehicles that will utilize these stations, it is difficult to quantify the emission reductions associated with this action.

Summary

Under the proposed revised approach, the State estimates that applying the remaining amount of funding allocated (minus the 2018 funding cycle and the 15% LDZEV (\$2.7 million)) to fund Eligible Mitigation Actions under this amended Plan using the estimated amounts noted above would result in total lifetime emission reductions of approximately 62.80 tons (EV), 36.69 tons (CNG), or 17.55 tons (LNG) in NO_x emission reduction benefits.

PUBLIC INPUT FOR THIS BENEFICIARY MITIGATION PLAN

NMED has created a public website for information relating to the Trust, the VW Partial Consent Trust Decrees, New Mexico's Plans, and implementation information. To provide transparency and accountability, the Department will post information on its VW website.

Public Input

NMED will seek public input on the Plan through the following public participation process. NMED will follow a similar process for future revisions to the Beneficiary Mitigation Plan.

Public Meetings

NMED hosted six public listening session meetings at key locations throughout the state for the initial Plan at the following locations:

- Santa Fe Public Library - Southside Branch, Santa Fe, August 14, 2017
- Thomas Branigan Library, Las Cruces, August 16, 2017
- Roswell Public Library, Roswell, August 17, 2017
- NMED District I Office, Albuquerque, August 21, 2017

- San Juan College School of Energy, Farmington, August 23, 2017
- Octavia Fellin Public Library, Gallup, August 24, 2017

These initial meetings were to inform the public of the Trust and to gather input from the public and private sector prior to the development of the State's Plan.

Draft Beneficiary Mitigation Plan

Notice of the opportunity for public comment on the draft Plan will be published on NMED's website and announced via NMED listserv before the Plan is finalized and submitted to the Trustee.

Final Beneficiary Mitigation Plan

The State will consider comments received during the public comment period, review any new or revised requirements the Trustee develops, and make any relevant revisions, and post the final Plan on NMED's VW website, <https://www.env.nm.gov/vw-settlement/>.

Periodic Evaluation

NMED will periodically evaluate implementation of the Plan and implementation of the Eligible Mitigation Actions and will determine whether any revisions to the Plan and funding levels are appropriate or necessary. If future revisions to the Plan are necessary, NMED will seek public input on major Plan revisions generally consistent with the process outlined above, including publishing a notice of the opportunity for a 30-day public comment period regarding the proposed revisions.

Website Updates

NMED will post the following information on our website:

- General information on the Partial Trust Consent Decrees, including a link to the documents;
- The State's draft and final Plans, including information about the public participation process for the Plan;
- All comments relating to the State's Plan;
- All public records supporting funding requests that NMED submits to the Trustee, and all public records supporting all expenditures of the Trust Fund, subject to confidentiality laws and until the Termination Dates of the Partial Trust Consent Decrees; and
- Department contact information.

CONCLUSION

The Beneficiary Mitigation Plan for the State of New Mexico has been revised in accordance with the terms of the Trust, and to reflect changes in project demand and the State's priorities. This Plan is not a solicitation for projects. As such, this Plan does not include detail on the application or project selection process. Such information will become available on NMED's VW website once the revised Plan has been finalized.