

# **State of Idaho**

# **Volkswagen Beneficiary Mitigation Plan**

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**State of Idaho**  
**Department of Environmental Quality**  
**Air Quality Division**  
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## Abbreviations, Acronyms, and Symbols

<b>DERA</b>	Diesel Emission Reduction Act
<b>DEQ</b>	Idaho Department of Environmental Quality
<b>EMA</b>	eligible mitigation action
<b>EPA</b>	United States Environmental Protection Agency
<b>EVSE</b>	Electric Vehicle Supply Equipment
<b>ITD</b>	Idaho Transportation Department
<b>NAAQS</b>	National Ambient Air Quality Standards
<b>NO<sub>x</sub></b>	nitrogen oxides
<b>O<sub>3</sub></b>	ozone
<b>OEMR</b>	Idaho Office of Energy and Mineral Resources
<b>PM<sub>2.5, 10</sub></b>	particulate matter with an aerodynamic diameter of 2.5 or 10 micrometers or less
<b>VW</b>	Volkswagen
<b>ZEV</b>	zero-emission vehicle

# 1 Introduction

In January 2016, the United States sued Volkswagen (VW) and associated companies, alleging that VW installed defeat devices in certain model year 2009–2016 vehicles. The United States also alleged that the defeat devices were activated during emissions testing to make the vehicles appear compliant, when in fact the vehicles emitted 9 to 40 times the allowable amount of nitrogen oxides (NO<sub>x</sub>), a harmful air pollutant, during on-road operation.

After a significant amount of investigation and negotiation, VW agreed to settle these allegations. The court entered the First Partial Consent Decree on October 25, 2016, and the Second Partial Consent Decree, which implicated other brands owned by VW, on May 17, 2017. This multidistrict litigation is in the United States District Court for the Northern District of California.

Pursuant to the First and Second Partial Consent Decrees (referred to collectively as the “Consent Decree”), the defendants and Wilmington Trust, N.A. (the trustee) entered into an Environmental Mitigation Trust Agreement for State Beneficiaries (i.e., for the 50 states, Puerto Rico, and the District of Columbia) to settle violations of the federal Clean Air Act and the California Health and Safety Code for the vehicles in the US that were equipped with defeat devices.

The overall settlement consists of three major parts:

- Buyback, Lease Termination, Vehicle Modification, and Emissions Compliant Recall Program
- National Zero Emission Vehicle (ZEV) Investment Plan
- Environmental Mitigation Trust

Under the Environmental Mitigation Trust, VW is required to establish a \$2.9 billion trust to fulfill VW’s environmental mitigation obligations under the Consent Decree, as well as for the cost and expenses of administering the trust to fund individual eligible mitigation actions (EMAs). A separate Indian Tribe Mitigation Trust was established to serve the Indian tribe beneficiaries.

The State of Idaho is currently allocated \$17,349,037.39 from the Environmental Mitigation Trust to fund EMAs. While Idaho can request EMA funds up to the total amount allocated to it, Idaho is limited to request payout of no more than one-third of its allocation during the first year or two-thirds of its allocation during the first two years. The Consent Decree identifies EMAs as well as a list of administrative expenditures that are eligible for funding under the trust. A link to the Consent Decree, including appendices, is available at [www.deq.idaho.gov/vw-settlement](http://www.deq.idaho.gov/vw-settlement).

The governor of Idaho identified the Department of Environmental Quality (DEQ) as the lead agency for the State of Idaho. DEQ is coordinating closely with the Office of Energy and Mineral Resources (OEMR), Idaho Transportation Department (ITD), and Division of Purchasing. The State of Idaho submitted the required Certification for Beneficiary Status on November 22, 2017, to the trustee. Pursuant to the trust, each Beneficiary is required to submit,

and make publicly available, a beneficiary mitigation plan (BMP) which describes how the Beneficiary intends to use the trust funds.

This BMP includes the following elements:

- Overview of air quality concerns in Idaho
- Idaho’s overall goal for use of the funds
- Categories of EMAs Idaho anticipates will be appropriate to achieve the goals of the state, as well as a preliminary assessment of the percentages of funds anticipated to be used for each type of EMA
- Description of how Idaho will consider the potential beneficial impact of the selected EMAs on air quality in areas that bear a disproportionate share of the air pollution burden
- General description of the expected ranges of emission benefits that would be realized by implementing the EMAs identified in this plan
- Process by which Idaho will seek and consider public input on this plan

This plan is not intended to be binding and may be adjusted based on new information and public input. The updated plan will be provided to the trustee. In addition, the State of Idaho will post updates at [www.deq.idaho.gov/vw-settlement](http://www.deq.idaho.gov/vw-settlement).

## 2 Air Quality in Idaho

Idaho currently has two areas that are designated as nonattainment (Figure 1). The West Silver Valley PM<sub>2.5</sub> nonattainment area and the Pinehurst PM<sub>10</sub> nonattainment area are located in Shoshone County in northern Idaho.<sup>1</sup> The Logan UT/ID PM<sub>2.5</sub> nonattainment area is located in Franklin County in southeast Idaho. Idaho does not have any areas designated as nonattainment for ozone. Several areas throughout the state have been successfully redesignated from nonattainment to attainment with a maintenance plan.

Idaho has identified two areas of concern for the PM<sub>2.5</sub> NAAQS and one for ozone (Figure 1). The Treasure Valley area of concern—Ada and Canyon Counties—is the most populated area of Idaho, with a population of about 655,000. This valley has been identified as an area of concern for both ozone and PM<sub>2.5</sub>. Salmon has been identified as an area of concern for PM<sub>2.5</sub>. Although Salmon is a small town (the population of Lemhi County is 7,723), the area experiences temperature inversions during the winter that trap smoke from residential heating in the valley. DEQ regularly evaluates air quality throughout Idaho and may update priority air quality areas as a result.

NO<sub>x</sub> is an important precursor for ozone and can be for PM<sub>2.5</sub>, depending on the airshed and other emission sources. NO<sub>x</sub> plays an important role for both ozone and PM<sub>2.5</sub> in the Treasure Valley and for PM<sub>2.5</sub> in the Logan UT/ID nonattainment area. However, NO<sub>x</sub> does not have much of an impact in the northern Idaho nonattainment areas or Salmon, where most of the emissions are from residential wood combustion.

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<sup>1</sup> PM<sub>2.5</sub> and PM<sub>10</sub> refer to particulate matter with an aerodynamic diameter of 2.5 or 10 micrometers or less, respectively.



Approximately 63% of all NO<sub>x</sub> emissions in Idaho come from mobile sources (e.g., highway cars and trucks, construction equipment, and non-road engines) (Figure 2). The mobile emissions include both diesel and non-diesel vehicles and engines. Only diesel vehicles or engines fall into the EMAs for this trust.

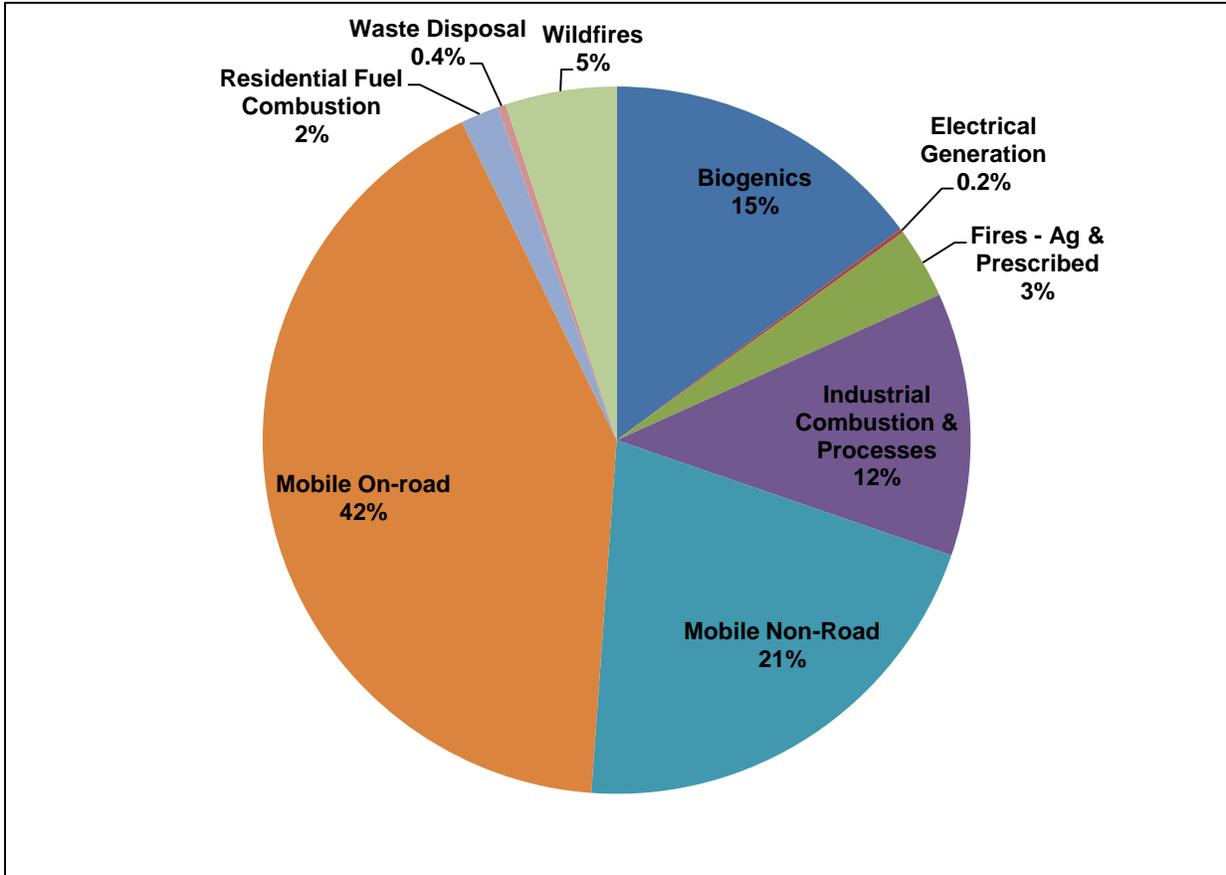


Figure 2. Idaho NO<sub>x</sub> emission sources for 2014 (source: 2014 National Emissions Inventory).

Figure 3 breaks down the mobile emission sources into categories by eligibility for funding under this trust. Heavy-duty diesel vehicles make up the majority of eligible vehicles in Idaho (31%), followed by non-road diesel equipment (14%), which is equipment not designed to be driven on a roadway (e.g., equipment used in construction, mining, logging, industrial, commercial, and agricultural sectors).

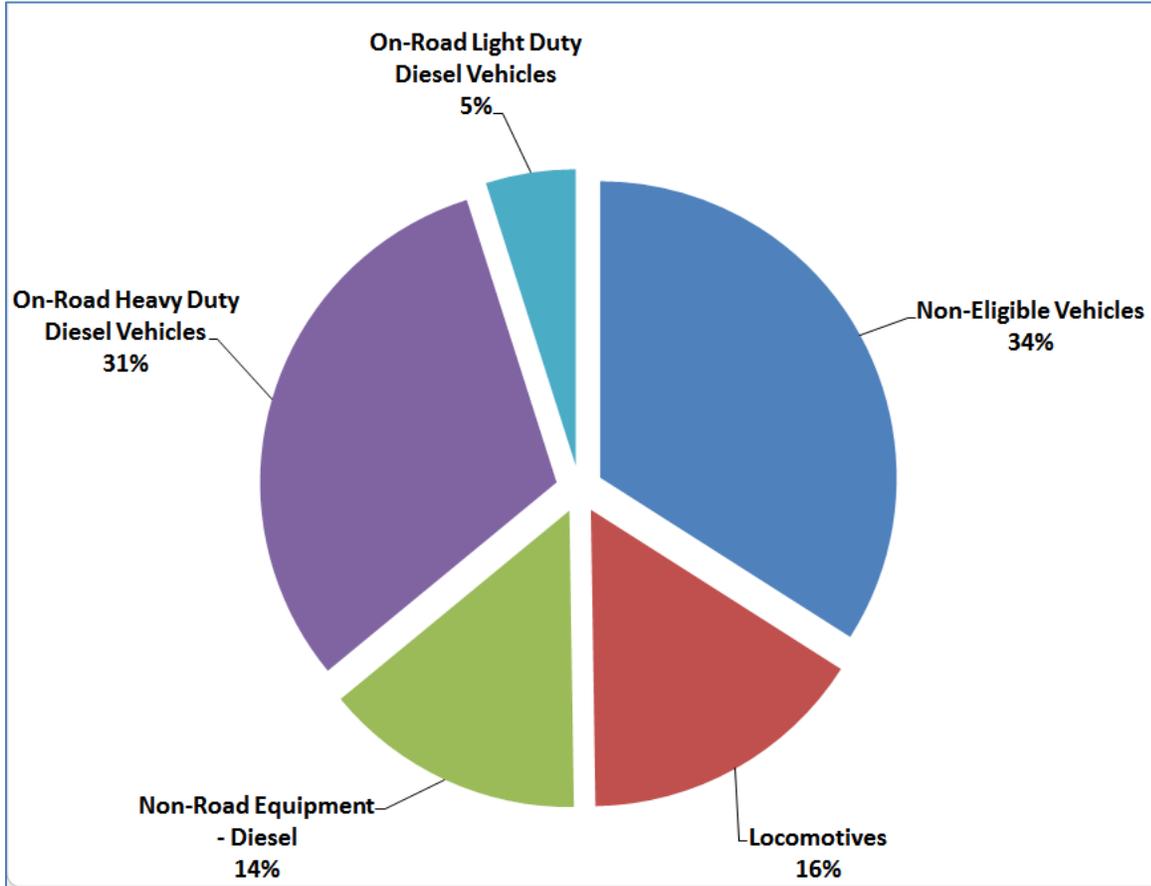


Figure 3. Mobile emission sources by category and eligibility for funding under the trust.

Figures 4, 5 and 6 display emissions in the counties that bear a disproportionate share of diesel emissions in the state. The counties that account for 75% of the total statewide NO<sub>x</sub> emissions from on-road diesel vehicles are listed in Figure 4. Figure 5 shows those counties that account for 75% of the non-road diesel emissions in Idaho. Figure 6 shows those counties that account for 75% of the locomotive diesel emissions in Idaho.

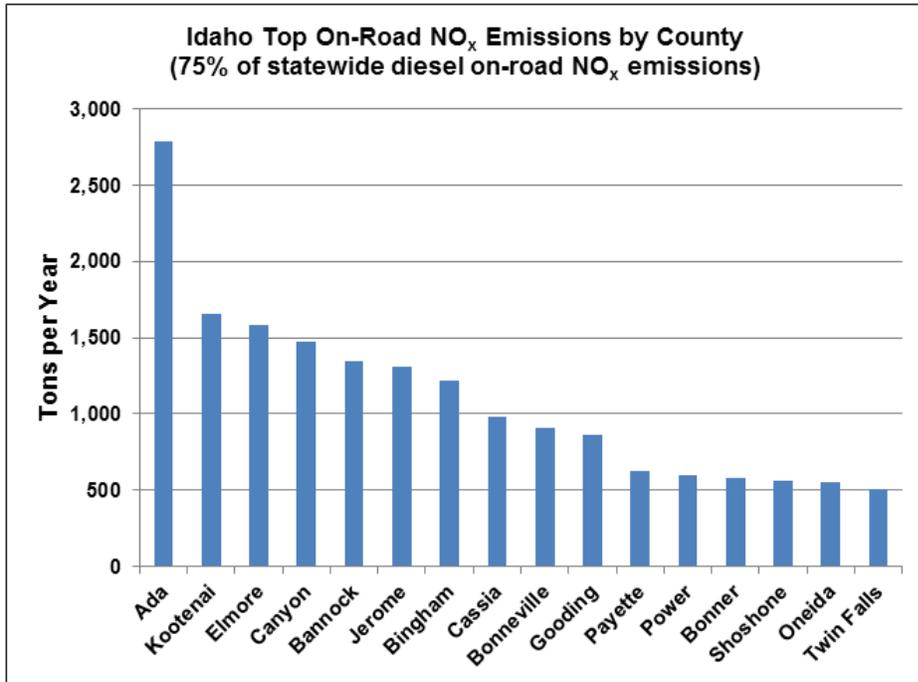


Figure 4. Top Idaho counties for on-road diesel NO<sub>x</sub> emissions for 2014 (source: 2014 National Emissions Inventory).

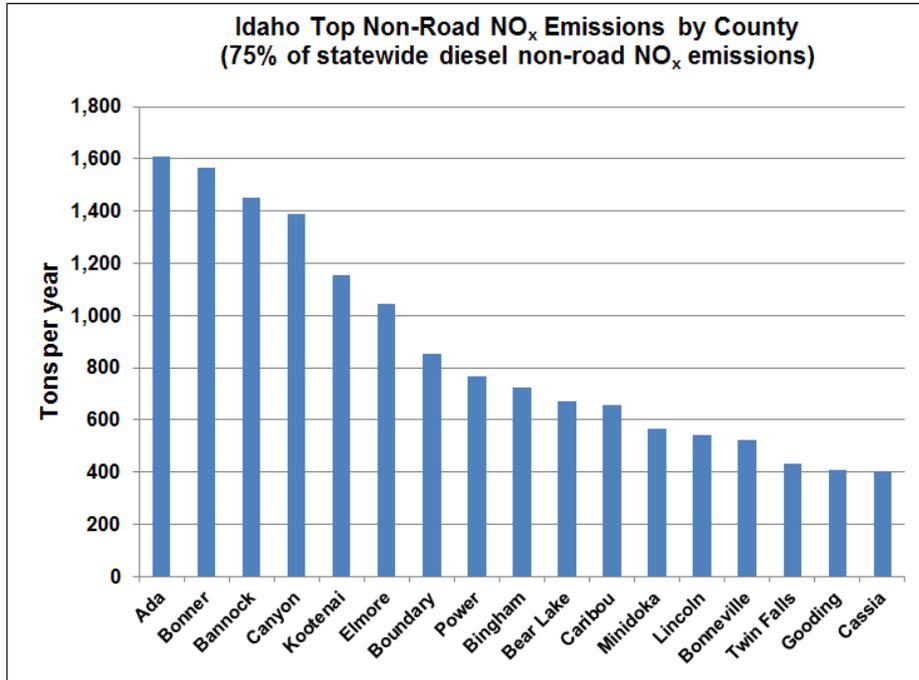


Figure 5. Top Idaho counties for non-road diesel NO<sub>x</sub> emissions for 2014 (source: 2014 National Emissions Inventory).

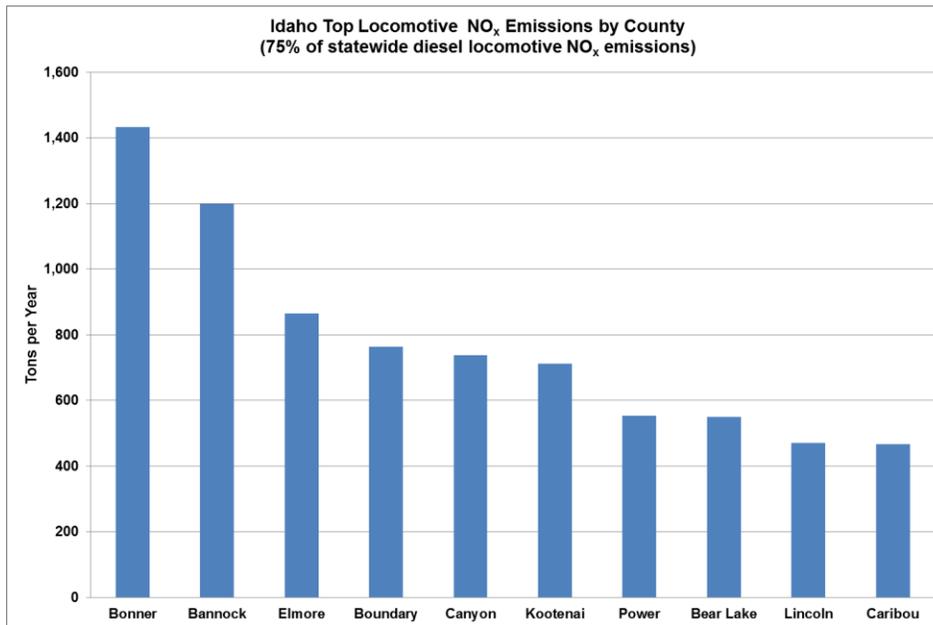


Figure 6. Top Idaho counties for locomotive diesel NO<sub>x</sub> emissions for 2014 (source: 2014 National Emissions Inventory).

### 3 Goals and Priorities

Idaho’s strategy for implementing the trust is to select projects that improve and protect ambient air quality by achieving the following high level goals:

- Achieve significant and sustained reductions in diesel emission exposures in
  - priority air quality areas (See Figure 1)
  - areas that receive a disproportionate amount of air pollution from diesel vehicles (See Figures 4, 5, and 6).
- Maximize the amount of diesel emissions reduced each year per dollar spent.
- Promote widespread acceptance of electric and hybrid vehicles (e.g. zero emission and near-zero emission vehicles and engines.)

Idaho will develop a statewide, transparent project solicitation, evaluation, and selection process. Idaho intends to consider all projects that are eligible under the trust and has identified the following preliminary criteria to evaluate and prioritize projects:

- Location: emphasis will be on priority air quality areas and counties with a greater amount of diesel emissions impacting the public (Figures 1, 4, 5, and 6)
- Cost effectiveness: emphasis will be placed on those projects that reduce the most amount of NO<sub>x</sub> emissions for the least amount of dollars (based on the EPA Diesel Emissions Quantifier (<https://www.epa.gov/cleandiesel/diesel-emissions-quantifier-deq>) or other DEQ approved methods)
- Population impacted: number of people who will benefit from the emission reductions
- Experience of applicant: government and nongovernment entities with demonstrated experience and existing administrative and programmatic structure in place for implementing diesel reduction or offset projects
- Implementation time: how quickly actual emission reductions can be achieved
- Voluntary funding match: applicants that provide voluntary cost share or matching dollars.
- Other: equity of distribution across the state, low income communities disproportionately impacted by air pollution, type of project

These preliminary criteria are subject to change based on public input. To clarify further, Idaho will evaluate projects using the matrix in Table 1 below, as well as evaluate each project against other project submissions of similar project type to determine funding recommendations.

**Table 1. Project evaluation matrix.**

<b>Criteria</b>	<b>Low</b>	<b>Medium</b>	<b>High</b>	<b>Total points possible</b>
Air Quality priority areas	Projects not located in any of the priority areas 5 points	Projects located in maintenance and other priority areas 15 points	Projects located within current NAA 25 points	25
NO <sub>x</sub> emission priority counties	Below 750 tons per year 5 points	Between 750 and 1,500 tons per year 15 points	Greater than 1,500 tons per year 25 points	25
Cost Effectiveness	Least cost effective 5 points	Middle cost effective 15 points	Most cost effective 25 points	25
Population impacted	Fewest number of people 5 points	Middle number of people 10 points	Highest number of people 20 points	20
Voluntary funding match	No match 0 points	Up to 30% 5 points	>30% 15 points	15
Implementation time	>3 years 2 points	1-3 years 5 points	<1 year 10 points	10
Applicant experience	<1 year 2 points	1-5 years 5 points	>5 years 10 points	10
Other	Points will be determined for each individual project			5

## 4 Implementation Plan

The Consent Decree lists 10 specific EMAs that are eligible for funding under the trust, as well as the EMA administrative expenditures. (Appendix A).

Idaho anticipates using up to 15% of the funds available for allowable administrative expenditures. Idaho has identified the EMAs most appropriate to achieve the state’s goals. Table 2 lists the EMAs allowed under the trust, the anticipated percent of project dollars Idaho anticipates to fund, and the resulting estimated emission reductions. However, Idaho intends to consider all projects that are allowable under the trust. The EMAs that Idaho is proposing to fund are explained further below. Idaho estimates 573 tons of NO<sub>x</sub> will be reduced as a result of

implementing the projects in this plan. Actual emission reductions will depend on the specific projects funded.

**Table 2. Eligible mitigation actions, anticipated percentages of funding, and estimated NOx emission reductions.**

Funding Percentage	Eligible Mitigation Action (EMA)	EMA Category	Estimated NOx Emission Reductions (tons)
0	Ferries/tugs	4	0
	Ocean going vessels shorepower	5	
15	Light-duty zero-emission vehicle supply equipment	9	360
35	Large trucks	1	88
	School bus, shuttle bus, or transit bus	2	
	Medium trucks	6	
20	Freight switchers (locomotives)	3	54
	Airport group support equipment	7	
	Forklifts and port cargo handling equipment	8	
15	Diesel Emission Reduction Act (DERA) option	10	71
15	Allowable administrative costs	NA	NA

#### 4.1 Light-Duty Zero-Emission Vehicle Supply Equipment

This category allows funds to be used for acquiring, installing, operating, and maintaining supply equipment for new light-duty zero emission vehicles (ZEVs). Examples of allowable ZEV supply equipment installations include Level 1, Level 2, or DC fast charging equipment located in a public place, workplace, or multi-unit dwelling. Other allowable projects include light-duty hydrogen fuel cell vehicle supply equipment and hydrogen dispensing equipment that is capable of dispensing hydrogen at a pressure of 70 megapascals.

The light-duty ZEV supply equipment projects identified in this section are not linked to the electric vehicle/equipment replacement or repower projects listed in paragraphs 1–8 of Appendix A. The ZEV supply equipment projects also are restricted to light-duty vehicle recharging/refueling locations and do not include recharging/refueling locations for medium or heavy-duty vehicles or equipment.

Trust funds will be used to advance electric vehicle adoption throughout Idaho by establishing a comprehensive charging network for ZEVs, which shall be known as the Electric Vehicle Supply Equipment Program (EVSE Program). Installing the charging network and implementing the EVSE Program is an eligible mitigation action consistent with the energy use goals and objectives of the State of Idaho. The Trust allows Idaho to set aside 15% of the state’s allocation (approximately \$2.83 million) for light-duty ZEV supply equipment.

The EVSE Program will be managed by OEMR in coordination with Idaho stakeholders and industry. The OEMR will accept applications for participating in the program, screen applications utilizing a selection committee, and ultimately recommend charging locations for funding.

Funds for ZEV supply equipment will be available statewide, with an emphasis on priority areas identified utilizing the ITD alternative fuel corridor map (Figure 7). The map was developed in coordination with the Federal Highway Administration, and routes were selected based on connectivity within the state and with bordering states. Four of the routes identified on the map are a continuation of routes selected by neighboring states.



Figure 7. Idaho alternative fuels corridors map.

OEMR, in coordination with interested stakeholders, identified the following key factors for consideration when choosing host sites:

- Within 0.5 miles of a major highway, 0.25 miles preferred
- All directional access to and from the roadway
- 24-hour, 365 day a year operational access
- Proximity to shopping, food services, or other “browsing opportunities,” open 24/7 preferred
- Well-lit
- ADA accessible
- Cell phone coverage by multiple carriers
- Ability to meet Point-of-Sale/ Payment Card Industry Data Security Standards
- Previous connection to a local utility, existing distribution circuit preferred
- Future expansion capabilities preferred

Those interested in hosting ZEV supply equipment should inquire with OEMR about the application process. The EVSE Program applications will be accepted from individual entities interested in undertaking the responsibilities of hosting an installation. Additionally, joint applications from entities and utility companies will be accepted. Entities may submit applications for multiple locations within the state, but each site will be evaluated independently.

Idaho estimates that each charging station will result in a reduction of about 12 tons of NO<sub>x</sub> over the life of the station, resulting in an estimated reduction of about 360 tons of NO<sub>x</sub>.

## 4.2 Trucks and Buses

Eligible vehicles under these categories include large freight trucks, port drayage trucks, school buses, shuttle buses, transit buses, and local medium freight trucks. These vehicles can either be replaced or repowered with any new diesel, alternate fuel, or all-electric vehicle or engine. For projects that move to an all-electric vehicle or engine, the cost of the charging infrastructure associated with the new vehicle or engine is also eligible.

Some of the projects eligible under these categories may also be eligible for funding under the Diesel Emission Reduction Act (DERA) program at lower funding levels that are established by DERA (see section 4.4).

Idaho expects to spend 35% of funds for projects within these EMAs. Idaho analyzed a sample of eligible projects that included replacing medium trucks, large freight trucks, and port drayage trucks with diesel replacements, as well as replacing school buses and transit buses with diesel, propane, compressed natural gas, and electric versions. The estimated total lifetime emission reductions from this group are approximately 88 tons of NO<sub>x</sub>.

## 4.3 Locomotives, Airport Equipment, and Forklifts

Eligible equipment under these categories include freight switcher locomotives used in railyards, airport ground support equipment, certain forklifts, and port cargo handling equipment. The freight switcher locomotives can be replaced or repowered with any new diesel, alternate fuel, or

all-electric vehicle or engine. Airport ground support equipment, forklifts, and port cargo handling equipment can only be replaced or repowered with any electric equipment or engine. For projects that move to an all-electric vehicle or engine, the cost of the charging infrastructure associated with the new vehicle or engine is also eligible.

Some of the projects eligible under these EMAs may also be eligible for funding under the DERA program at lower funding levels that are established by DERA (see section 4.4).

Idaho expects to spend 20% of funds for projects within these EMAs. Idaho analyzed a sample of eligible projects that included replacing a freight switcher with diesel and airport ground support equipment and forklifts with electric equipment. The estimated total lifetime emission reductions from this group are approximately 54 tons of NO<sub>x</sub>.

#### **4.4 DERA Option**

Eligible projects under this EMA include project types currently allowed under the US Environmental Protection Agency's (EPA's) DERA programs, such as various types of retrofits, repowers, replacements, and conversions. DERA-eligible projects are subject to the funding limits established by EPA. DEQ has an existing state Diesel Emission Reduction Program, which has successfully retrofitted school buses and county and agricultural equipment and replaced school buses since 2005.

Idaho will use trust funds as Idaho's nonfederal voluntary match for DERA grants. Idaho will also fund projects allowed under DERA that are not included in grant work plans.

This EMA has some overlap with the other EMAs in vehicle eligibility. However, DERA requires different applicant funding match requirements. Some projects included in the EMAs discussed above are also eligible for funding under the DERA option, except at lower funding levels than those established by the Consent Decree.

Some of the projects allowed under the DERA option that are not eligible under other EMAs include the following:

- Unregulated Tier 1 or Tier 2 locomotives, including line-haul locomotives
- Locomotive idle reduction technologies
- Non-road engines, equipment, or vehicles used for construction, agriculture, or mining
- Non-road engines, equipment, or vehicles used in energy production, including stationary generators or pumps
- Long-haul Class 8 trucks aerodynamic technologies and low rolling resistance tires

Idaho expects to spend 15% of funds for projects under the DERA option. Idaho analyzed a sample of eligible projects that included replacing school buses, short-haul trucks, transit buses, and construction equipment with new diesel vehicles or equipment. The estimated total lifetime emission reductions from this group are approximately 71 tons of NO<sub>x</sub>.

## 5 Public Input to the Idaho Beneficiary Mitigation Plan

Idaho is seeking public input on all aspects of this plan and the following specific questions and issues:

1. Should Idaho consider using trust funds on government- as well as nongovernment-owned vehicles and/or facilities?
2. How can Idaho best maximize the air quality benefits resulting from the trust?
3. Should Idaho fund projects at the maximum amount eligible under the trust or should Idaho fund some or all projects at a lesser amount in order to best maximize the use of funds.
4. Should Idaho set aside funds for particular categories of projects or applicants?
5. Should preference be given to certain fuels, such as diesel, compressed natural gas, propane, hydrogen fuel cell, or battery electric?
6. What are the costs and benefits of replacing or repowering vehicles with “alternate fueled” or “all-electric” engine technologies, as defined by Appendix D-2 of the Consent Decree?
7. What percentage of trust funds, if any, should Idaho devote to light-duty ZEV supply equipment?
8. Should Idaho expend trust funds on the DERA option?
9. What is the best method or approach to determine whether a proposed project will benefit areas that have been disproportionately impacted by emissions of NO<sub>x</sub> or other pollutants (and information about such impacts in particular areas of Idaho)?
10. How should the State of Idaho conduct public outreach (e.g., in-person public meetings, presentations to stakeholder groups, Facebook posts, tweets, written comments, and traditional media)?
11. What additional factors, if any, should the State of Idaho consider in its public outreach?

Responses to comments will be posted at [www.deq.idaho.gov/vw-settlement](http://www.deq.idaho.gov/vw-settlement). Changes to this plan resulting from submitted comments will be incorporated into the final beneficiary mitigation plan.

**Appendix A. Eligible Mitigation Actions and  
Mitigation Action Expenditures From Appendix  
D-2 of the Trust**

## **ELIGIBLE MITIGATION ACTIONS AND MITIGATION ACTION EXPENDITURES**

### **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 diesel or Alternate Fueled engine or All-Electric engine, or may be replaced with any new diesel or 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:
  1. Up to 40% of the cost of a Repower with a new diesel or Alternate Fueled (e.g., CNG, propane, Hybrid) engine, including the costs of installation of such engine.
  2. Up to 25% of the cost of a new diesel or Alternate Fueled (e.g., CNG, propane, Hybrid) vehicle.
  3. 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.
  4. 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:
  1. Up to 40% of the cost of a Repower with a new diesel or Alternate Fueled (e.g., CNG, propane, Hybrid) engine, including the costs of installation of such engine.
  2. Up to 50% of the cost of a new diesel or Alternate Fueled (e.g., CNG, propane, Hybrid) vehicle.
  3. 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.

4. 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:
  1. Up to 100% of the cost of a Repower with a new diesel or Alternate Fueled (e.g., CNG, propane, Hybrid) engine, including the costs of installation of such engine.
  2. Up to 100% of the cost of a new diesel or Alternate Fueled (e.g., CNG, propane, Hybrid) vehicle.
  3. 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.
  4. 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 diesel or Alternate Fueled or All-Electric engine, or may be replaced with any new diesel or 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:
  1. Up to 40% of the cost of a Repower with a new diesel or Alternate Fueled (e.g., CNG, propane, Hybrid) engine, including the costs of installation of such engine.
  2. Up to 25% of the cost of a new diesel or Alternate Fueled (e.g., CNG, propane, Hybrid) vehicle.
  3. 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.

4. 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:
  1. Up to 100% of the cost of a Repower with a new diesel or Alternate Fueled (e.g., CNG, propane, Hybrid) engine, including the costs of installation of such engine.
  2. Up to 100% of the cost of a new diesel or Alternate Fueled (e.g., CNG, propane, Hybrid) vehicle.
  3. 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.
  4. 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 diesel or Alternate Fueled or All-Electric engine(s) (including Generator Sets), or may be replaced with any new diesel or 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 :
  1. Up to 40% of the cost of a Repower with a new diesel or Alternate Fueled (e.g., CNG, propane, Hybrid) engine(s) or Generator Sets, including the costs of installation of such engine(s).
  2. Up to 25% of the cost of a new diesel or Alternate Fueled (e.g., CNG, propane, Hybrid) Freight Switcher.
    1. 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).
  - 2. 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:
- 1. Up to 100% of the cost of a Repower with a new diesel or Alternate Fueled (e.g., CNG, propane, Hybrid) engine(s) or Generator Sets, including the costs of installation of such engine(s).
  - 2. Up to 100% of the cost of a new diesel or Alternate Fueled (e.g., CNG, propane, Hybrid) Freight Switcher.
  - 3. 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).
  - 4. 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:
  - 1. Up to 40% of the cost of a Repower with a new diesel or Alternate Fueled (e.g., CNG, propane, Hybrid) engine(s), including the costs of installation of such engine(s).
  - 2. 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:
  - 1. Up to 100% of the cost of a Repower with a new diesel or Alternate Fueled (e.g., CNG, propane, Hybrid) engine(s), including the costs of installation of such engine(s).
  - 2. 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 diesel or Alternate

Fueled or All-Electric engine, or may be replaced with any new diesel or 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:
  - 1. Up to 40% of the cost of a Repower with a new diesel or Alternate Fueled (e.g., CNG, propane, Hybrid) engine, including the costs of installation of such engine.
  - 2. Up to 25% of the cost of a new diesel or Alternate Fueled (e.g., CNG, propane, Hybrid) vehicle.
  - 3. 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.
  - 4. 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:
  - 1. Up to 100% of the cost of a Repower with a new diesel or Alternate Fueled (e.g., CNG, propane, Hybrid) engine, including the costs of installation of such engine.
  - 2. Up to 100% of the cost of a new diesel or Alternate Fueled (e.g., CNG, propane, Hybrid) vehicle.
  - 3. 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.
  - 4. 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:
  - 1. Tier 0, Tier 1, or Tier 2 diesel powered airport ground support equipment; and
  - 2. 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.

- a. 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.
- b. For Non-Government Owned Eligible Airport Ground Support Equipment, Beneficiaries may only draw funds from the Trust in the amount of:
  - 1. 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.
  - 2. 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.
- c. For Government Owned Eligible Airport Ground Support Equipment, Beneficiaries may draw funds from the Trust in the amount of:
  - 3. 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.
  - 4. 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:
  - 1. 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.
  - 2. 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:

1. 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.
  2. 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 fifteen percent (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:
    1. 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.
    2. 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.
    3. 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.
    4. 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.

5. 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.
  6. 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. Diesel Emission Reduction Act (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.

#### Eligible Mitigation Action Administrative Expenditures

For any Eligible Mitigation Action, Beneficiaries may use Trust Funds for actual administrative expenditures (described below) associated with implementing such Eligible Mitigation Action, but not to exceed 15% of the total cost of such Eligible Mitigation Action. The 15% cap includes the aggregated amount of eligible administrative expenditures incurred by the Beneficiary and any third-party contractor(s).

1. Personnel including costs of employee salaries and wages, but not consultants.
2. Fringe Benefits including costs of employee fringe benefits such as health insurance, FICA, retirement, life insurance, and payroll taxes.
3. Travel including costs of Mitigation Action-related travel by program staff, but does not include consultant travel.
4. Supplies including tangible property purchased in support of the Mitigation Action that will be expensed on the Statement of Activities, such as educational publications, office supplies, etc. Identify general categories of supplies and their Mitigation Action costs.
5. Contractual including all contracted services and goods except for those charged under other categories such as supplies, construction, etc. Contracts for evaluation and consulting services and contracts with sub-recipient organizations are included.
6. Construction including costs associated with ordinary or normal rearrangement and alteration of facilities.
7. Other costs including insurance, professional services, occupancy and equipment leases, printing and publication, training, indirect costs, and accounting.

Definitions/Glossary of Terms

“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 EPA or 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)*” means vehicles with a GVWR greater than 14,001 lbs used for transporting people.

“*Class 8 Local Freight and Port Drayage Trucks*” means trucks with a GVWR greater than 33,000 lbs used for port drayage and/or freight/cargo delivery, including waste haulers, dump trucks, and concrete *mixers*.

“*Drayage Trucks*” means trucks hauling cargo to and from ports and intermodal rail yards.

“*Forklift*” means non-road equipment used to lift and move materials short distances, and generally include tines to lift objects. Eligible types of forklifts include reach stackers, side loaders, and top loaders.

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

“*Generator Set*” means 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*” means 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)*” means the maximum weight of the vehicle, as specified by the manufacturer. GVWR include the following total vehicle weight plus fluids, passengers, and cargo:

- Class 1: < 6000 lbs
- Class 2: 6001-10,000 lbs
- Class 3: 10,001-14,000 lbs

Class 4: 14,001-16,000 lbs  
Class 5: 16,001-19,500 lbs  
Class 6: 19,501-26,000 lbs  
Class 7: 26,001-33,000 lbs  
Class 8: > 33,001 lbs

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

“*Infrastructure*” means the equipment used to enable the use of electric powered vehicles (e.g., electric charging stations).

“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, 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).