



**VOLKSWAGEN CONSENT DECREE
ENVIRONMENTAL MITIGATION TRUST
INDIANA BENEFICIARY MITIGATION PLAN
(October 2018)**

Volkswagen Mitigation Trust Questions:

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Volkswagen Consent Decree Environmental Mitigation Trust

Beneficiary Mitigation Plan

Statement of Purpose

The State of Indiana (State), through the Indiana Department of Environmental Management (IDEM), is submitting this Beneficiary Mitigation Plan, as referenced in the [Third Partial Settlement and Consent Decree](#) in the latest filing regarding the [Environmental Mitigation Trust for State Beneficiaries](#).

Background

The settlement establishes a Mitigation Trust (Trust) to be used for environmental mitigation projects that reduce emissions and improve air quality. The funding for the Eligible Mitigation Actions is intended to fully mitigate the total, lifetime excess oxides of nitrogen (NOx) emissions from vehicles involved in the case. The Trust provides approximately \$41 million for Indiana; the funds are to be used during a 10-year period for specific, eligible projects designed to achieve these results.

The State must submit a Beneficiary Mitigation Plan for approval in order to access the Trust funds. The comments collected through this process were used to inform the Final Beneficiary Mitigation Plan submitted for approval by the Trustee.

The State must address the following details in developing the Beneficiary Mitigation Plan:

- The “high-level vision for use of the mitigation funds.”
- The overall goal for the use of the funds.
- The categories of Eligible Mitigation Actions appropriate to achieve the stated goals and a preliminary assessment of the percentage of funds appropriate for each category of mitigation action.
- A description of how the State will measure the potential beneficial impact of Eligible Mitigation Actions on air quality in areas that bear a disproportionate share of the air pollution burden.
- A general description of the expected ranges of emission benefits that would be realized by implementation of the Beneficiary Mitigation Plan.

Eligible Projects

The eligible projects are specified in Appendix D-2 of the settlement and more specific details about these projects as well as funding caps allowed under the national mitigation trust can be found on [Indiana’s Volkswagen Mitigation Trust Program](#) website. The broad categories of project types allowed are:

- Repower or Replace Class 8 local freight trucks and port drayage trucks
 - Model Year 1992 - 2009
- Repower or Replace Class 4-8 school buses, shuttle buses or transit buses
 - Model year 2009 and older
- Repower or Replace Class 4-7 local freight trucks
 - Model year 1992 - 2009
- Repower or Replace Diesel switcher locomotives
 - Pre-Tier 4 engines and operated over 1,000 hours per year
- Repower of eligible diesel-powered ferries and tugs
 - Pre-Tier 3 engines
- Shorepower equipment for oceangoing vessels and vessels operating within the Great Lakes
- Repower of eligible diesel-powered airport ground support equipment
 - Pre-Tier 3 engines
- Repower of eligible forklifts and port cargo handling equipment
 - Greater than 8,000 pounds lifting capacity
- Light-duty zero emission vehicle supply equipment
 - Level 1, Level 2, and Fast Charging
- Matching funds for U.S. Environmental Protection Agency (U.S. EPA) funding under the Diesel Emission Reduction Act (DERA) administered through IDEM's DieselWise Indiana Program
 - DERA eligibility and match requirements must be met

Eligibility is outlined in the national mitigation trust and to help create regional consistency IDEM will coordinate with other Midwest Clean Diesel Initiative partner states (Illinois, Indiana, Michigan, Minnesota, Ohio, and Wisconsin) where necessary. Ambiguities in eligible projects under the Indiana Volkswagen Mitigation Trust Program will not be addressed at this time.

Program Questions

Questions specific to Indiana's Volkswagen Mitigation Trust Program should be sent to:

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Indiana Department of Environmental Management Volkswagen Environmental Mitigation Trust Beneficiary Mitigation Plan

Introduction

The following proposal is in response to the approximately \$41 million Indiana is poised to receive in settlement funds under the [Third Partial Settlement and Consent Decree](#) in the latest filing regarding the [Environmental Mitigation Trust for State Beneficiaries](#). Appendix D-2 of the Environmental Mitigation Trust for Beneficiaries specifies eligible mitigation actions and expenditures for the Mitigation Trust Fund and is incorporated into this document as Appendix B. On October 4, 2017, the Governor of the State of Indiana, through an Executive Order, designated IDEM as the Beneficiary to administer this program on behalf of the State of Indiana and established an Advisory Committee. IDEM, in coordination with the Advisory Committee, proposes to implement the following strategy to reduce nitrogen oxides (NO_x) emissions in Indiana.

Consistent with the terms of the national mitigation trust, this Beneficiary Mitigation Plan is intended to provide the public with an overview of Indiana's goals and objectives for the use of mitigation trust funds. NO_x is a precursor to ozone and is the pollutant required to be mitigated through the Indiana Volkswagen Mitigation Trust Program by the national mitigation trust. IDEM proposes to prioritize (in part) the use of the settlement funds to reduce NO_x emissions, as well as fine particulate matter (PM_{2.5}) emissions, in areas of concern across Indiana to the extent possible. IDEM is encouraging all areas of the state to apply for funds to improve air quality across the state through repowers or the early replacement of other vehicles and equipment.

The national mitigation trust clearly defines the minimum requirements of a Beneficiary Mitigation Plan. In short, these key elements are:

- Describe the overall goal for the use of the funds.
- Identify the categories and provide a preliminary assessment of percentages of eligible mitigation actions (EMAs) that are anticipated by the Beneficiary to be used to achieve the stated goal for the use of the funds.
- Describe how the Beneficiary will consider potential beneficial impacts of the EMAs on air quality in areas that bear a disproportionate share of the air pollution burden.
- A general description of the expected ranges of emission benefits that would be realized by implementation of the Beneficiary Mitigation Plan.
- The Beneficiary Mitigation Plan need only provide the level of detail reasonably ascertainable at the time of submission in regards to the overall program and is intended to provide the public with insight into a Beneficiary's high-level vision for the use of the national mitigation trust funds and information about the specific uses for which funding is expected to be requested.

This Beneficiary Mitigation Plan addresses these key elements, and many others, throughout the document and is organized in a way to provide the greatest amount of information in the clearest possible way.

Elements of Indiana's Volkswagen Mitigation Trust Program

IDEM is proposing to distribute the EMAs permitted by the national mitigation trust into five groups to streamline the process for applicants and create a more equitable means by which the merits of projects will be evaluated against each other. The types of projects included with this proposal are durable, sustainable solutions for the long-term benefit of Indiana communities.

Mission Statement and Overall Goals

In promoting the reduction of emissions of NOx, the Indiana Volkswagen Environmental Mitigation Trust Fund Program will prioritize sustainable projects that are transformative, positively impacting the environment, enhancing the health and well-being of residents, and promoting Indiana's growing economy.

The Program will focus on technological change and advancement with resiliency and favoring use of domestic fuel, where possible.

The goals of the Indiana Volkswagen Mitigation Trust Program include:

- Improving air quality across Indiana through cost-effective NOx emission reduction strategies
- Maximizing diesel emission reductions across Indiana, while considering various categories of sensitive populations as areas of specific focus
- Providing appropriate considerations to projects that have diesel emission reductions that go beyond just NOx, including PM_{2.5}, hydrocarbons (HC), carbon monoxide (CO), and carbon dioxide (CO₂)
- Encouraging leveraging of project partner funds with VW Trust funds to further the reach of the Indiana program

Grouping of Eligible Mitigation Actions

Appendix D-2 of Attachment A to the Environmental Mitigation Trust Agreement for State Beneficiaries details the projects that are eligible under the national mitigation trust. These projects types are as follows:

- Class 8 local freight trucks and port drayage trucks.
- Class 4-8 school/shuttle/transit buses.

- Freight switcher locomotives.
- Ferries/tugboats.
- Ocean and lake going vessels shorepower.
- Class 4-7 local trucks.
- Airport ground support equipment.
- Forklifts and cargo handling equipment at ports.
- Light-duty zero electric vehicle supply equipment (up to 15% of allocation).
- Diesel Emission Reduction Act (DERA) option.
 - Option to use Trust funds for actions not specifically listed but otherwise eligible under DERA.
- Beneficiary Administrative Costs.

To ease the application process and create parity in project scoring, evaluation, and selection, so that similar projects are scored and evaluated together, IDEM will organize the EMAs listed above into five groups. These groups are as follows:

- Onroad Equipment and Vehicles
 - Projects such as Class 4-8 trucks and Class 4-8 school, shuttle, and transit buses
- Nonroad Equipment and Vehicles
 - Projects such as airport ground support equipment, forklifts and port cargo handling equipment, ferries and tugboats, and freight-switcher locomotives
- DERA Option Project Types
 - Projects such as idle reduction technologies, diesel engine Repower and Replacements using fuel options not permitted under Volkswagen, diesel engine upgrades, and exhaust after-treatments
- Light-Duty Electric Infrastructure
 - Projects such as Level 1, Level 2, and Fast Charging stations across Indiana (not to be confused with heavy-duty electric infrastructure)
- Administrative Costs
 - Costs such as IDEM staff, outreach materials where appropriate, and appropriate Advisory Committee expenses

Onroad Equipment and Vehicles

The onroad equipment and vehicles group includes Class 4-8 trucks and Class 4-8 school, shuttle, and transit buses. Equipment or vehicles in this group must be Indiana-owned and operated to be eligible for funding. Indiana-owned equipment and vehicles are those that are Indiana-registered with the Indiana Bureau of Motor Vehicles. IDEM intends to allocate approximately 52% (~\$21.32 million) to projects within this group.

In IDEM's initial request for information, only one other EMA received more supportive comments than school buses. As such, IDEM intends to set aside approximately 40% (~\$8.53 million) of the onroad group funds for school buses, with an additional set-aside of roughly 30% of the school bus allotment (~\$2.56 million) for electric school bus projects. The set-asides for diesel, alternative fuel, and/or electric school buses are intended to provide a minimum reserved level of funding for these project types. The remaining 60% (~\$12.79 million) of the onroad equipment and vehicles group will go to all other Class 4-8 trucks and buses.

Nonroad Equipment and Vehicles

The nonroad equipment and vehicles group includes airport ground support equipment, forklifts and port cargo handling equipment, lake or river ferries and tugboats, and freight-switcher locomotives. Equipment or vehicles in this group must be Indiana-based, meaning they must operate primarily within state boundaries but may be owned by non-Indiana entities. IDEM intends to allocate approximately 20% (~\$8.2 million) to projects within this group.

Onroad and Nonroad Fleet-specific Infrastructure

Although permitted by Appendix D-2 of the Consent Decree, it should be noted that IDEM does not intend to fund fleet-specific, heavy-duty, electric infrastructure costs as doing so creates an inequity towards other diesel or alternative fuel types. Rather, IDEM will focus the Indiana Volkswagen Mitigation Trust Program funds on equipment and vehicle repower and replacement projects. In addition, not funding fleet-specific electric infrastructure promotes funding of projects where both private and public entities have a vested interest in sustaining a new energy platform.

DERA Option Project Types

The DERA Option of the Indiana Volkswagen Mitigation Trust Program provides funding opportunities for impactful diesel emission reduction projects that are not specifically eligible under the national mitigation trust. The DERA Option allows Beneficiaries to use Volkswagen Mitigation Trust funds to match (or over-match) DERA-based programs funding through the U.S. EPA. This provides flexibility to fund high-impact projects that might include idle reduction technologies, diesel engine repower and replacement projects using fuel types not eligible under the Volkswagen Mitigation Trust, diesel engine upgrades, and exhaust after-treatments not otherwise permitted under the constraints of the national mitigation trust. IDEM intends to allocate 10% (~\$4.10 million) to projects in the DERA Option group.

Consistent with other diesel emission reduction project groups, onroad project fleets must be Indiana-owned and nonroad project fleets must be Indiana-based.

Light-Duty Electric Vehicle Infrastructure

The national mitigation trust provides the Beneficiaries the opportunity to set aside up to 15% light-duty electric infrastructure development. IDEM provided the public an opportunity to comment on an initial draft program framework document for the development of a revised Beneficiary Mitigation Plan. More favorable comments were received for funding light-duty electric infrastructure than any other. With the hope of meeting this call, IDEM intends to allocate the maximum of 15% (~\$6.15 million) to Level 1, Level 2, and Fast Charging light-duty electric infrastructure equipment. IDEM recognizes that Fast Charging equipment may be preferred by many, but is choosing to keep the options open to allow project partners to determine the best technology for their specific project.

IDEM recognizes that another component of the overall Volkswagen Consent Decree authorizes similar funding for light-duty electric vehicle infrastructure; known as Electrify America. To the extent possible, IDEM will coordinate with the Electrify America program to reduce or remove any duplicate efforts.

Administrative Costs

Administrative costs for Beneficiaries are eligible under the national mitigation trust. These funds can be used for costs associated with project management and oversight by the Beneficiary. The national mitigation trust does not allow funding for administrative costs to applicants or their contractors. Although Beneficiaries are permitted to claim up to 15% of the total program costs, IDEM intends to allocate 3% (~\$1.23 million) to cover staff costs along with limited costs incurred by the Advisory Committee.

It should be noted that the national mitigation trust allows IDEM from 3 to 10 years to complete the terms of the Indiana Volkswagen Mitigation Trust Program. This range of 3 to 10 years for full implementation of this program provides ample opportunity for participation through multiple solicitations for projects.

Indiana Volkswagen Mitigation Trust Program Match Requirements

IDEM proposes to use Volkswagen Mitigation Trust funds to reimburse non-government owned fleet and equipment owners in these categories at

the levels specified in Appendix D-2 of the national mitigation trust. IDEM intends to use Volkswagen Mitigation Trust funds to reimburse government-owned fleets and equipment at the same level as non-government owned fleet and equipment owners, as opposed to the full cost reimbursement permitted by Appendix D-2.

Project Type	VW Funding
1a) Class 8 Local Freight (1992-2009)	
Repowers with new diesel or alternative fueled engines, including costs of installation	Up to 40% covered
Replacement with new diesel or alternative fueled vehicle	Up to 25% covered
Repowers with all-electric engine, including cost of installation of engine	Up to 75% covered
Replacement with new all-electric vehicle	Up to 75% covered
1b) Class 8 Drayage (1992-2009)	
Repowers with new diesel or alternative fueled engines, including costs of installation	Up to 40% covered
Replacement with new diesel or alternative fueled vehicle	Up to 50% covered
Repowers with new all-electric engine	Up to 75% covered
Replacement with new all-electric vehicle	Up to 75% covered
2) Class 4-8 School Bus, Shuttle Bus, or Transit Bus (Eligible Buses) (??-2009)	
Repowers with new diesel or alternative fueled engines, including costs of installation	Up to 40% covered
Replacement with new diesel or alternative fueled vehicle	Up to 25% covered
Repowers with all-electric engine, including cost of installation of engine	Up to 75% covered
Replacement with new all-electric vehicle	Up to 75% covered
3) Freight Switcher (Pre-Tier 4 engines to Tier level of mitigation action year)	
Repowers with new diesel or alternative fueled engines or generator sets, including costs of installation	Up to 40% covered
Replacement with new diesel or alternative fueled freight switcher	Up to 25% covered
Repowers with new all-electric engines, including costs of installation of engines	Up to 75% covered
Replacement with new all-electric freight switcher	Up to 75% covered

4) Ferries/Tugs (Unregulated, Tier 1 or Tier 2 Marine to Tier 3 or Tier 4)	
Repowers with new diesel or alternative fueled engines, including costs of installation	Up to 40% covered
Repowers with new all-electric engines, including costs of installation of engines	Up to 75% covered
5) Ocean Going Vessels Shorepower	
Costs associate with the shore-side system, including cables, cable management systems, shore power coupler systems, distribution control systems, installation and power distribution components	Up to 25% covered
6) Class 4-7 Local Freight Trucks (Medium Trucks) (1992-2009)	
Repowers with new diesel or alternative fueled engines, including costs of installation	Up to 40% covered
Replacement with new diesel or alternative fueled vehicle	Up to 25% covered
Repowers with all-electric engine, including cost of installation of engine	Up to 75% covered
Replacement with new all-electric vehicle	Up to 75% covered
7) Airport Ground Support Equipment (Tier 0, Tier 1, Tier 2, Uncertified or Certified 3g/bhp-hr or higher emissions)	
Repowers with all-electric engine, including cost of installation of engine	Up to 75% covered
Replacement with new all-electric ground support equipment	Up to 75% covered
8) Forklifts and Port Cargo Handling Equipment (Greater than 8,000 pounds lift capacity)	
Repowers with all-electric engine, including cost of installation of engine	Up to 75% covered
Replacement with new all-electric forklift or port cargo handling equipment	Up to 75% covered
9a) Light-duty Zero Emission Vehicle Supply Equipment (Level 1, Level 2 Fast Charging)	
Purchase, install and maintain light-duty electric vehicle supply equipment that will be available to the public at Government Owned Property	Up to 80% covered
Purchase, install and maintain light-duty electric vehicle supply equipment that will be available to the public at Non-Government Owned Property	Up to 80% covered
Purchase, install and maintain light-duty electric vehicle supply equipment that will be available at workplace but not general public	Up to 60% covered
Purchase, install and maintain light-duty electric vehicle supply equipment that will be available at multi-unit dwelling but not general public	Up to 60% covered

9b) Light-duty Hydrogen Fuel Cell Vehicle Supply Equipment (Minimum pressure of 70 megapascals that is located in a public place)	
Purchase, install and maintain light-duty hydrogen fuel cell vehicle supply equipment, dispensing at least 250 kg/day that will be available to the public	Up to 33% covered
Purchase, install and maintain light-duty hydrogen fuel cell vehicle supply equipment, dispensing at least 100 kg/day that will be available to the public	Up to 25% covered
10) Diesel Emission Reduction Act (DERA) Option	
For diesel emission reduction projects "not specifically enumerated in this Appendix D-2, but otherwise eligible under DERA pursuant to all DERA guidance documents available through the EPA."	Up to covered amounts eligible under most recent U.S. EPA DERA guidance documents

The table above details the maximum amount of funding that is available for various projects types. The remaining balance of those project costs must be covered by the project partner and is generally referred to as the “match requirement.”

Indiana’s Strategy to Deal with Areas of Disproportionate Air Quality Burden

Attachment A of the Volkswagen Consent Decree requires Beneficiaries to detail how they will “consider the beneficial impact of the selected EMAs on air quality in areas that bear a disproportionate share of the air pollution burden within its jurisdiction.” IDEM intends to provide additional clarification on this in the solicitation for projects packet specifically. This requirement may be met within the evaluation and scoring criteria for projects through one or any combination of the following:

- To assist and guide the final determination of grant recipients, preferences may be awarded to applicants in areas with sensitive populations, which may include but are not limited to:
 - Areas designated as nonattainment or maintenance for one or more National Ambient Air Quality Standards.
 - Historic areas of air quality concern.
 - Areas with high population and traffic density.
 - Areas with localized diesel emission-producing activities such as multimodal centers, distributions centers, ports, rail and bus terminals, airports, as well as others deemed to have a localized impact on air quality.
 - Areas where human health data indicate higher than average respiratory ailments.
 - Environmental Justice (EJ) areas as detailed in the U.S. EPA’s EJ Screening and Mapping Tool or other appropriate methodology.

Indiana's Estimates of Emission Reduction Potential

Developing a representative example of the potential emission reduction impact of the Indiana Volkswagen Mitigation Trust Program can be handled in several ways. There are several methods and models that can be used to accomplish this task. The key in this process is to use a model that provides meaningful data in a consistent manner. IDEM used U.S. EPA's Diesel Emissions Quantifier (DEQ) model for the estimated emission reductions below. Although no model is perfect, the DEQ does produce annual and lifetime emission reductions for a project as well as a cost per ton reduced calculation.

Using a reasonable representative sample of the types of projects in each group, IDEM estimates the following emission reductions from the Onroad, Nonroad, and DERA groups:

Onroad Equipment and Vehicles: (Includes sample set of Class 4-8 truck, transit bus, and school bus projects)	34.73 tons per year
Nonroad Equipment and Vehicles: (Includes sample set of marine, port, and airport, projects)	66.83 tons per year
DERA Option (Includes sample set of switcher locomotive projects)	10.60 tons per year

As noted above, the DEQ also produces a cost per ton reduced figure for various projects. For the Onroad, Nonroad, and DERA Groups, these figures are as follows:

Onroad Equipment and Vehicles Average:	\$342,099 per ton reduced
Nonroad Equipment and Vehicles Average:	\$56,929 per ton reduced
DERA Option Average:	\$30,852 per ton reduced

It should be noted that models to calculate emission reduction potential from light-duty electric vehicle infrastructure projects are not currently common in the marketplace. The Federal Highway Administration's Congestion Mitigation and Air Quality program estimates that the cost per ton of NOx emissions reduced through infrastructure development is approximately \$1.5 million per ton. As electric infrastructure programs and projects become more prevalent, more methods to calculate the associated NOx emission reductions will be available.

The total NOx emissions reduced from the Indiana Volkswagen Mitigation Trust Program is estimated at 127.65 tons per year. This does not include additional NOx emission reductions from electric infrastructure projects as those reductions

are difficult to quantify. Further, there will be additional emission reductions in PM_{2.5}, HC, CO, and CO₂.

Indiana's Beneficiary Mitigation Plan Public Review and Input Process

IDEM provided stakeholders multiple opportunities to provide insight and comment on the development of the Beneficiary Mitigation Plan to support the Indiana Volkswagen Mitigation Trust Program. In October of 2017, IDEM published a website with specific information on the national mitigation trust as well as the Indiana program. The website included an opportunity to sign up for automated updates to make sure interested parties were always kept apprised of any changes made to the program website.

IDEM also posted a draft framework document for the development of the Beneficiary Mitigation Plan. This document was used as the basis for a request for information from Indiana stakeholders on key elements of the Indiana Volkswagen Mitigation Trust Program. This draft framework document was made available and comments were received through March of 2018.

IDEM requested input on several key questions related to the development of the Beneficiary Mitigation Plan through a series of public listening sessions conducted in various parts of the State of Indiana, along with members of the Advisory Committee, a formal email address portal, presentations to trade groups, and other interactions specific to the Indiana Volkswagen Mitigation Trust Program. Through all of these input opportunities, IDEM received well over 200 unique comments and questions relevant to the Indiana program. IDEM's key questions to stakeholders related to the development of the Beneficiary Mitigation Plan revolved primarily around:

1. What types of projects should Indiana fund?
2. How much of Indiana's allotment should go towards electric vehicle infrastructure?
3. What is a reasonable match requirement for public and private sector partners and how to address higher-cost project types?
4. How much of Indiana's allotment, if any, should go towards the DERA option to expand project types beyond just those included in the national mitigation trust?

Although not required by the national mitigation trust, IDEM placed this revised version of the Beneficiary Mitigation Plan out for a second round of public review and comment in August 2018 with a focus on a transparent process. As before, these additional comments were fully considered and incorporated into this final version of the Beneficiary Mitigation Plan.

Potential Project Partners

Potential project partners include non-profit organizations, health organizations, industry stakeholders (railroad, boats, trucking, and construction), educational institutions, environmental advocacy groups, environmental justice organizations, and communities. Through the Indiana Clean Diesel Coalition and other partnerships, IDEM has established and will continue to seek effective working relationships with many partners who are invited to provide input relative to Mitigation Trust projects.

Conclusion

This Beneficiary Mitigation Plan has been developed in accordance with the terms of the Environmental Mitigation Trust Agreement for State Beneficiaries. This Beneficiary Mitigation Plan is not a solicitation for projects. As such, this Beneficiary Mitigation Plan does not include detail on the application or project selection process. Such information will be available on the Indiana Volkswagen Mitigation Trust Program website after the Final Beneficiary Mitigation Plan has been submitted to the Trustee.

The approved Beneficiary Mitigation Plan may be revised as necessary and appropriate during the term of the Trust in accordance with the terms and conditions of the Volkswagen Environmental Mitigation Trust.

Appendix B

Appendix D-2 of the Environmental Mitigation Trust for Beneficiaries

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APPENDIX D-2
Eligible Mitigation Actions and Mitigation Action Expenditures

APPENDIX D-2

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.

3. 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).
 4. 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.

- 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:
 - 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.
- e. For Government Owned Eligible Airport Ground Support 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 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)” 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.

“Forklift” shall mean nonroad equipment used to lift and move materials short distances; 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. The term “State” means the several States, the District of Columbia, and the Commonwealth of Puerto Rico.

“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, 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).

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