

**Indiana Volkswagen Environmental Mitigation Trust Fund  
Advisory Committee Meeting**

**Monday, June 4, 2018  
1:00 p.m.**

**Indiana Government Center South-Conference Room A**

- I. Welcome - Chair, Beverly Gard**
- II. Call to Order - Chair, Beverly Gard**
- III. Subcommittee Vision Statement Proposal (15 minutes)**
  - A. Committee discussion and acceptance**
- IV. Guest Speakers**
  - A. Janet McCabe, IU School of Law, ELPC, IU Environmental Resilience Institute (30 minutes)**
  - B. Frank Acevedo, U.S. EPA (30 minutes)**
- V. Tabled BMP Discussion – Decision points for Advisory Committee consideration – Shawn Seals, IDEM, OAQ (1 hour)**
  - A. Committee discussion and Q&A**
  - B. Committee direction regarding refinement of BMP**
- VI. Next steps/schedule of milestones– Shawn Seals, IDEM, OAQ**
- VII. Public comment - Open floor for stakeholders**
- VIII. Closing remarks – Chair, Beverly Gard**
- IX. Adjournment**



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# **Indiana Volkswagen Mitigation Trust Fund Advisory Committee Meeting**

**Shawn Seals**

Senior Environmental Manager  
IDEM – Office of Air Quality

**June 4, 2018**



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# **IDEM Beneficiary Mitigation Plan Funding Category Allocations**



# Eligible Mitigation Project Types

According to the Consent Decree and Mitigation Trust, eligible projects are:

- 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.
  - Projects funded under the DERA option will be required to meet the DERA cost share requirements.

**Note:** Public and private entities are both eligible, with funding percentages dependent upon type of emission reduction strategy.



# Potential Grouping of Eligible Project Types

Generally the eligible project types can be categorized into the following for more efficient applications, evaluation, and scoring:

## 1. Onroad Equipment and Vehicles

- Projects such as Class 4-8 trucks and Class 4-8 school, shuttle, and transit buses

## 2. Nonroad Equipment and Vehicles

- Projects such as airport ground support equipment, forklifts and port cargo handling equipment, ferries and tugboats, and freight-switcher locomotives

## 3. 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

## 4. 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)

## 5. Administrative Costs

- Costs such as IDEM staff, outreach materials where appropriate, and appropriate Advisory Committee expenses



# Onroad Equipment and Vehicle 45% - 55% of Total Trust Fund

- Includes Class 4-8 trucks and Class 4-8 buses
- Must be Indiana-owned equipment
- Allocate ~50% (~\$20.5 million)
- Set aside ~40% (~\$8.2 million) of onroad for school buses
  - Carve out ~30% (~\$2.75 million) of school bus allocation for electric school buses
- Remaining ~60% (~\$12.3 million) for all other Class 4-8 truck or bus projects
- Require a match of no-less-than 25% for all non-electric-powered engine and vehicle projects, whether public or private, unless Trust calls for greater match
- Require a match of no-less-than 30% for all electric-powered engine and vehicle projects, whether public or private



# Nonroad Equipment and Vehicle 18% - 26% of Total Trust Fund

- Includes freight switcher locomotives, ferries and tug boats, airport ground support equipment, and forklifts and port cargo handling equipment
- Nonroad equipment and vehicles must be Indiana-based (not owned)
- Allocate ~22% (~\$9.02 million) to equipment and vehicles in nonroad group
- Require a match of no-less-than 25% for all non-electric-powered equipment and vehicle projects, whether public or private
- Require a match of no-less-than 30% for all electric-powered equipment and vehicle projects, whether public or private



# **Diesel Emission Reduction Act Option 8% - 12% of Total Trust Fund**

- This group includes many projects included in the national mitigation trust, but adds several projects types not specifically identified in the trust language
- Onroad equipment and vehicles must be Indiana-owned
- Nonroad equipment and vehicles must be Indiana-based
- Allocate ~10% (~\$4.1 million)
- Require a match consistent with most recent release of DERA State Allocation Program, whether public or private





# Electric Infrastructure 15% of Total Trust Fund

- Level 1, Level 2, and Fast Charging light-duty electric infrastructure equipment, along with ocean going vessel shorepower technologies
- IDEM is not recommending any funding for ocean going vessel shorepower projects due to lack of demonstrated interest
- All electric infrastructure equipment must be Indiana-based
- Allocate 15% (~\$6.15 million) to infrastructure equipment in this group
- Require a match of no-less-than 20% for all infrastructure equipment made available to the public, whether publicly or privately owned, in this group
- Require a match of no-less-than 40% for all infrastructure equipment not made available to the public, whether publicly or privately owned, in this group



# Beneficiary Administrative Costs 3% of Total Trust Fund

- The national mitigation trust language does not provide funding support for project management or administrative fees to applicants or their contractors through the eligible mitigation action
- These funds would be used to cover IDEM staff as well as limited costs of the Advisory Committee
- Allocate 3% (~\$1.23 million)



# Indiana Volkswagen Mitigation Trust Allocation Summary

<b>Eligible Mitigation Action</b>	<b>Suggested Allocation</b>
Onroad Equipment and Vehicles	45-55%
Nonroad Equipment and Vehicles	18-24%
DERA Option	8-10%
Electric Infrastructure	15%
Administrative Costs	3%
<b>TOTAL</b>	<b>100%</b>



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# Summary of Region 5 States Beneficiary Mitigation Plans



# Midwest States Comparisons

	Indiana	Illinois	Michigan	Minnesota	Ohio (Final)	Wisconsin
<b>Onroad Vehicle/Equipment Allocation</b>	50% (6.7% to electric school buses)	30% (10% to electric school buses)	72%	70% (15% to electric vehicles)	53%	62%
<b>Nonroad Vehicle/Equipment Allocation</b>	22%	65%		15%	25% (DERA Rolled into Nonroad)	33% (Via public comment, gubernatorial, legislation instruction)
<b>DERA Option Allocation</b>	10%	0%	4%	0%		
<b>Light-Duty Electric Infrastructure Allocation</b>	15%	0%	14%	15%	15%	
<b>Administrative Costs Allocation</b>	3%	5%	10%	Not specifically mentioned	7% - 8%	5%
<b>Applicant Match Requirement – Public</b>	TBD (25% - 30% Proposed for non-DERA Option Projects)	25%	25% - 75% (75% for majority)	25% - 90% (75% for majority)	25%	Not specifically mentioned
<b>Applicant Match Requirement – Private</b>	TBD (25% - 30% Proposed for non-DERA Option Projects)	50%			25%	Not specifically mentioned



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# **NO<sub>x</sub> Reductions by Project Type and Relative Comparisons**



# Project Fuel Type Comparisons

PER VEHICLE (Lifetime of School Buses)	NOx Reduction Percentage	Lifetime NOx Reductions (Tons)	Cost/Ton Reduced	PM2.5 Reduction Percentage	Lifetime PM2.5 Reductions (Tons)	Cost/Ton Reduced
School Bus - Diesel	79.1%	0.382	\$235,560	47.4%	0.001	\$61,650,540
School Bus - Propane	99.0%	0.478	\$198,666	98.0%	0.003	\$31,475,327
School Bus - CNG	99.0%	0.478	\$271,859	98.0%	0.003	\$43,071,500
School Bus - Electric	100.0%	0.483	\$672,851	100.0%	0.003	\$105,525,174
Refuse Hauler - Diesel	84.3%	1.467	\$143,175	41.8%	0.004	\$52,907,277
Refuse Hauler - CNG	99.0%	1.722	\$142,235	98.0%	0.009	\$26,327,669
Switcher Locomotive - Diesel	89.9%	315.507	\$19,968	97.6%	14.532	\$433,537
Switcher Locomotive – CNG	99.0%	347.444	\$21,586	98.0%	14.591	\$514,009

Note: Reductions based on U.S. EPA Diesel Emission Quantifier runs of 2009 diesel vehicle replacements for 10-year lifetime (School Buses and Refuse Haulers) and 45-year lifetime (Switcher Locomotive)



## Project Type Relative Comparisons

Annual Reduction Comparisons (NOx)	School Bus	Refuse Hauler	Locomotive
Relative to School Bus		0.26	0.03
Relative to Refuse Hauler	3.84		0.10
Relative to Locomotive	36.70	9.56	

Note: Comparative diesel-powered vehicles needed for equal emission reduction (Ex: It takes 3.84 School Buses to get the same annual emission reductions as 1.0 Refuse Haulers)

Annual Reduction Comparisons (NOx)	School Bus	Refuse Hauler	Locomotive
Relative to School Bus		\$0.61	\$0.08
Relative to Refuse Hauler	\$1.65		\$0.14
Relative to Locomotive	\$11.80	\$7.17	

Note: Comparative dollars invested for equal diesel-powered emission reduction (Ex: Spending \$1.65 on School Buses will get the same emission reductions as \$1.00 spent on Refuse Haulers)





# Advisory Committee Discussion and Q&A Session





# Indiana Volkswagen Mitigation Trust Advisory Committee Timeline

Milestone	Estimated Completion	Advisory Committee Involvement
Beneficiary Mitigation Plan recommendations shared with Advisory Committee	June 4, 2018	Direction to IDEM
Updated Final Draft of BMP posted to Indiana VW Mitigation Trust Website	June/July 2018	Review and/or Approval
Final BMP Approved and Submitted to Trustee	August 2018	Review and/or Approval
Develop Solicitation for Projects to Include Clear Evaluation Criteria	Summer/Fall 2018	Review and/or Approval
Release Indiana Volkswagen Mitigation Trust Program Solicitation for Projects for first round of funding	Fall/Winter 2018	NA
Indiana Volkswagen Mitigation Trust Program Project Recommendations Shared with Advisory Committee	Winter 2018	Review and/or Approval



## For More Information

**Indiana Volkswagen Mitigation Trust Program website:**

[www.idem.IN.gov/vwtrust](http://www.idem.IN.gov/vwtrust)

**Submit Beneficiary Mitigation Plan comments to:**

[VWTrust@idem.IN.gov](mailto:VWTrust@idem.IN.gov)

**For program assistance:**

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