

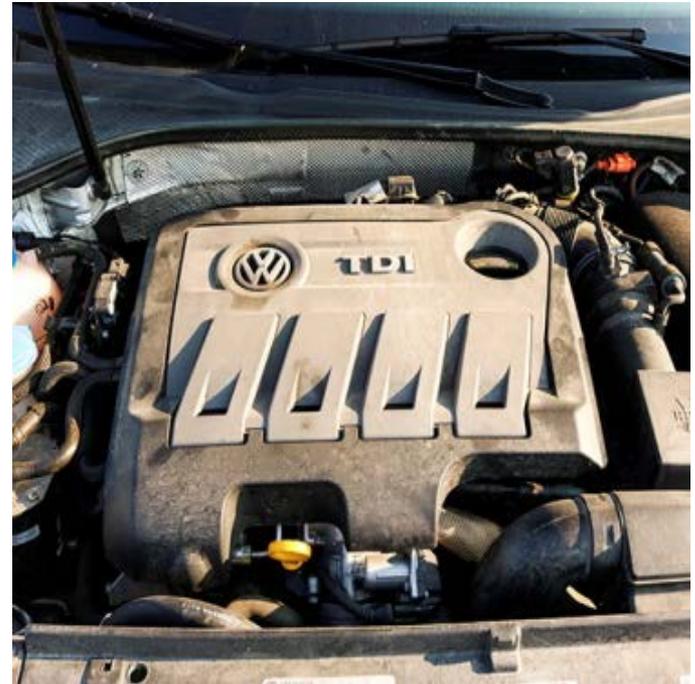


Volkswagen Trust

Be Part of the Solution

Missouri's Draft Beneficiary Mitigation Plan

Jefferson City
April 20, 2018



Presentation Overview

Two Draft Documents

Comment period ends May 4, 2018

- Draft Beneficiary Mitigation Plan
 - Four elements required by consent decree
- Draft Implementation Guidelines
 - Selection process, target areas, timing, cost share, and contingency plans

Two Draft Documents

Beneficiary Mitigation Plan

- Vision and goals
- Award categories and funding levels
- Four elements required by trust
- Public input

Implementation Guidelines

- Selection process and timing
- Target areas
- Cost share and contingency plans
- Public input



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Draft Beneficiary Mitigation Plan

From the Consent Decree, Mitigation Plan Must Include:

1. Overall goals
2. Award categories and funding levels
3. Consider benefits for areas with disproportionate air pollution burdens
4. Estimated emission reductions

1. Overall Goals

Reduce NO_x emissions from mobile sources

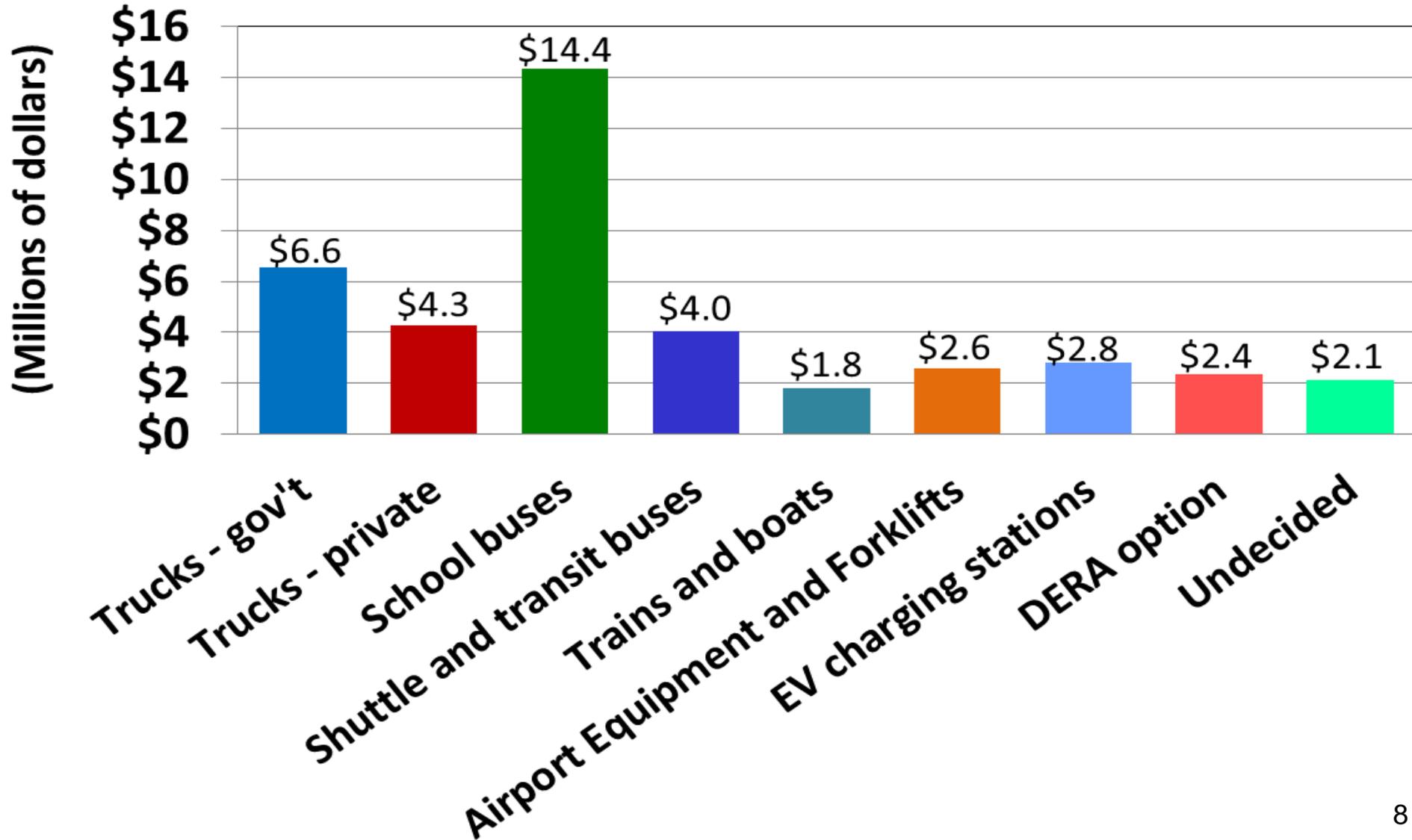
Additional goals:

- Replace aging school bus fleets
- Reduce diesel and gasoline fuel consumption
- Upgrade government fleets
- Upgrade private fleets
- Target areas that currently or historically have not met air quality goals
- Target areas with affected Volkswagen vehicles
- Promote electric vehicles

2. Award Categories and Funding Levels

Award Category	Projects	Funding Level
1	School Buses	\$12 million
2	Government Trucks	\$6 million
3	Transit and Shuttle Buses	\$4 million
4	Nongovernment Trucks	\$6 million
5	Locomotive and Marine	\$2 million
6	Airport and Cargo Equipment	\$2 million
7	DERA Option	\$3 million
8	Electric Vehicle Charging Stations	\$6 million

Basis for Awards: from Survey 2



Categories in Draft Plan from Consent Decree

Action	VW Eligible Mitigation Action	Missouri's Award Category	Category
1	Eligible Large Trucks (Class 8)	Government Trucks	2
		Nongovernment Trucks	4
2	Eligible Buses (School, Transit/Shuttle)	School Buses	1
		Transit/Shuttle Buses	3
3	Freight Switchers	Locomotive and Marine	5
4	Ferries/Tugs	Locomotive and Marine	5
5	Ocean Going Vessels Shorepower	Locomotive and Marine	5

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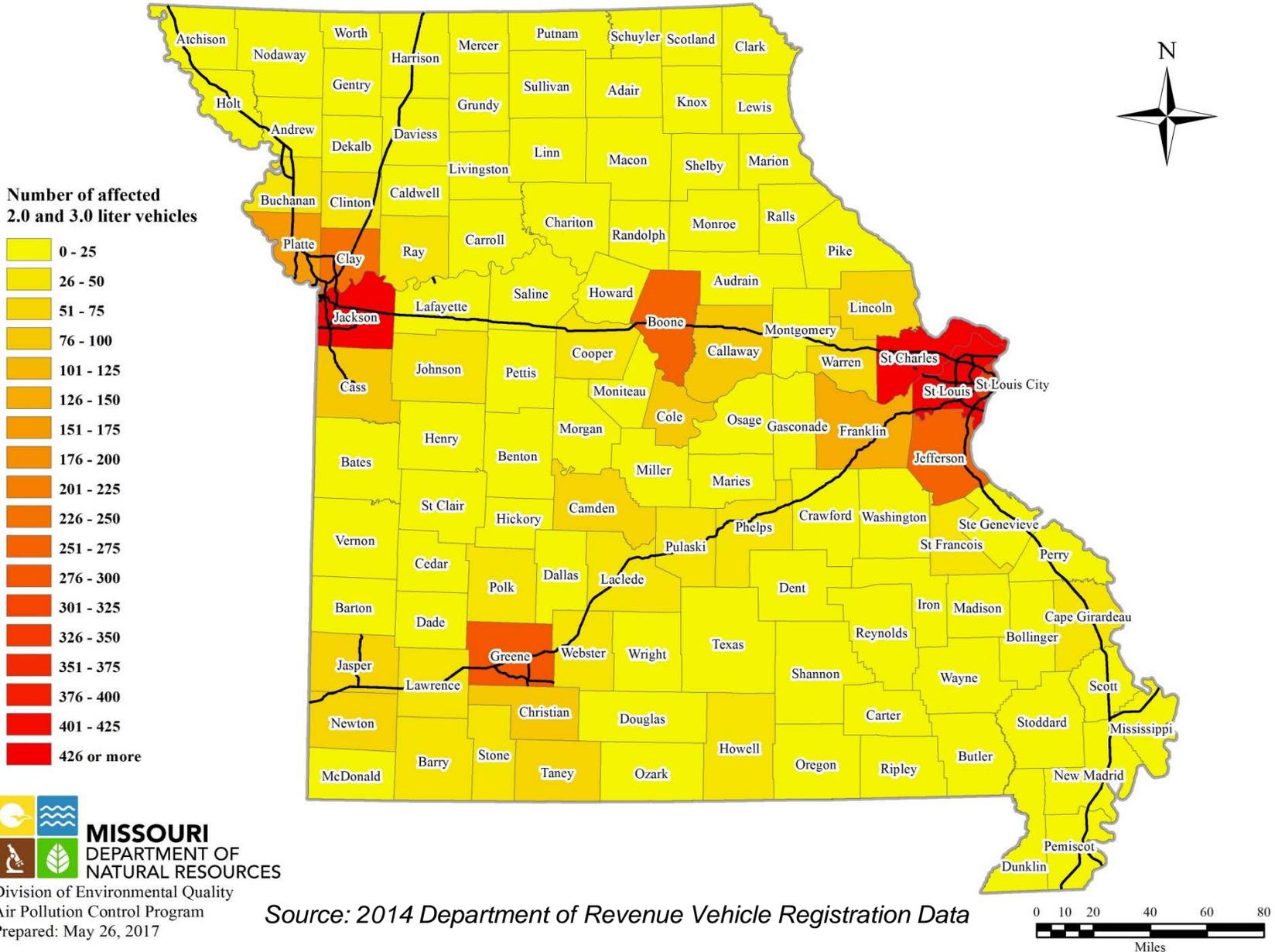
Categories in Draft Plan from Consent Decree

Action	VW Eligible Mitigation Action	Missouri's Award Category	Category
6	Medium Trucks (Class 4-7)	Government Trucks	2
		Nongovernment Trucks	4
7	Airport Ground Support Equipment	Airport and Cargo Equipment	6
8	Forklifts and Port Cargo Handling Equipment	Airport and Cargo Equipment	6
9	Light Duty Zero Emission Vehicle Supply Equipment	Electric Vehicle Charging Stations	8
10	Diesel Emission Reduction Act (DERA) Option	DERA Option	7

3. Consider benefits for areas with disproportionate air pollution burdens

- Reserve minimum portions of funding
- Award points on applications
- Target areas based on:
 - Sensitive populations
 - Areas of concentrated diesel emissions
 - Areas not meeting air quality standards
 - Areas with large proportions of VW vehicles

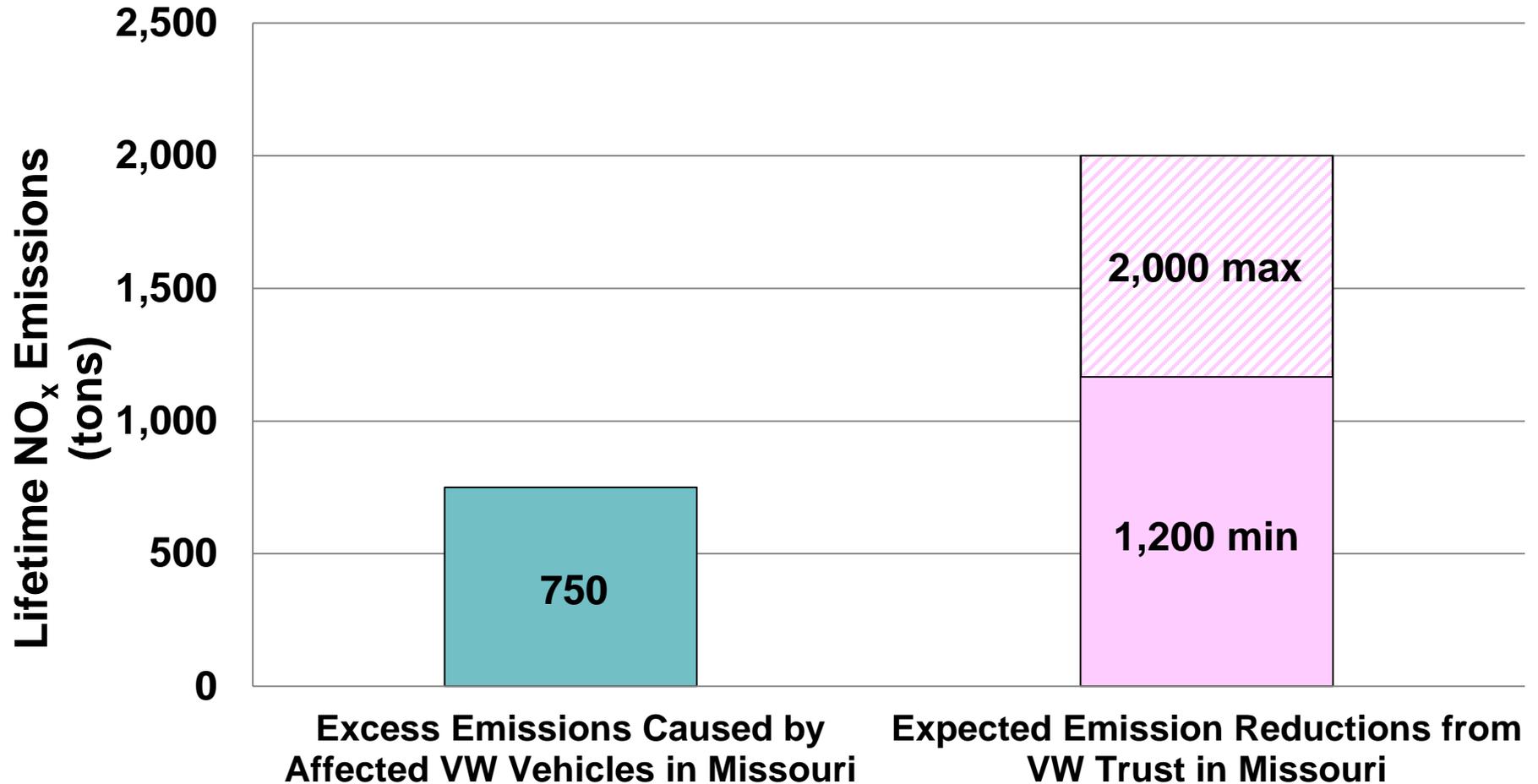
Affected VW Vehicles



4. Estimated Emission Reductions

- The Department uses EPA's Diesel Emissions Quantifier tool to estimate reductions
- The Department will calculate actual emission reductions for all projects funded based on:
 - Actual vehicle/engine ages, current fuel type, miles driven, and usage rates
 - New vehicle/engine fuel type and emission rates
- Estimates in plan based on assumptions:
 - Number and type of projects
 - Details of projects

4. Estimated Emission Reductions



Draft Implementation Guidelines

Implementation Guidelines

- Selection Process
- Target Areas
- Award Category Details
- Timing
- Administrative Costs

Selection Process

Selection Process

Competitively Scored Applications

2. Government Trucks
3. Transit and Shuttle Buses
4. Nongovernment Trucks
5. Locomotive and Marine
6. Airport and Cargo Equipment
7. DERA
(Rounds 2 and later)

Lottery-style Drawing

1. School Buses
7. DERA
(Round 1 only)

Hybrid Team-driven

8. Electric Vehicle Charging Stations

Competitively Scored Applications

Award Categories

2. Government Trucks
3. Transit and Shuttle Buses
4. Nongovernment Trucks
5. Locomotive and Marine
6. Airport and Cargo Equipment
7. DERA
(Rounds 2 and later)

Selection Process

- Vehicles graded individually (partial award)
- 90 percent of score from cost of reduction of one pound of NO_x over lifetime (cost-effectiveness)
- 10 percent of score from area of operation

Cost Effectiveness Calculation Examples

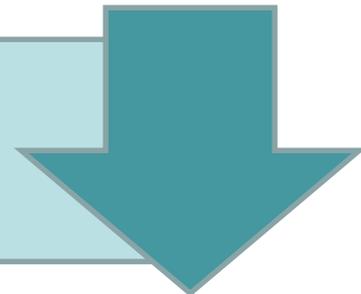
Example 1: Vary cost-share or VW dollars

Example 2: Vary age of vehicle being replaced

Example 3: Vary vehicle usage rates

Example 4: Vary fuel type and emission level

Goal: Lowest Cost
Per Pound



Example 1: Vary Cost-Share

Replace government-owned 2001 Class 8 dump truck for \$140,000 total cost

VW Funds Request	Cost-share	Lifetime NO _x Reduced	Cost Effectiveness (VW funds/pound NO _x reduced)
\$70,000	\$70,000 (50 percent)	6,093 lbs.	\$11.49/lb.
\$35,000	\$105,000 (75 percent)	6,093 lbs.	\$5.74/lb.

Result: Better cost effectiveness with higher cost-share/fewer VW funds requested

Example 2: Vary Age of Vehicle

Replace Class 8 dump truck with total request of \$50,000 VW trust funds; compare model year

VW Funds Request	Engine Model Year	Lifetime NO _x Reduced	Cost Effectiveness (VW funds / pound NO _x reduced)
\$50,000	1998	4,448 lbs.	\$11.24/lb.
\$50,000	2001	6,093 lbs.	\$8.21/lb.
\$50,000	2005	3,797 lbs.	\$13.17/lb.

Result: Cost effectiveness depends on both the emission levels and remaining life of old engine

Example 3: Vary Vehicle Usage

Replace 2001 Class 8 dump truck with total request of \$50,000 VW trust funds; compare truck usage

VW Funds Request	Miles Driven Per Year	Fuel Used Per Year (gal.)	Lifetime NO _x Reduced	Cost Effectiveness (VW funds / pound NO _x reduced)
\$50,000	10,000	2,500	3,336 lbs.	\$14.99/lb.
\$50,000	20,000	5,000	6,093 lbs.	\$8.21/lb.
\$50,000	40,000	10,000	11,616 lbs.	\$4.30/lb.

Result: Cost effectiveness is maximized by replacing vehicles that are used more often

Example 4: Vary Fuel Type

Replace 2001 Class 8 dump truck with total request of \$50,000 VW trust funds; compare three fuels

VW Funds Request	Fuel in New Vehicle	Emission Level (gram of NO _x per brake horsepower/hour)	Lifetime NO _x Reduced	Cost Effectiveness (VW funds / pound NO _x reduced)
\$50,000	Diesel	0.2	6,093 lbs.	\$8.21/lb.
\$50,000	Propane	0.1	6,714 lbs.	\$7.45/lb.
\$50,000	All-electric	0.05	7,024 lbs.	\$7.12/lb.

Result: Cost effectiveness is maximized with lowest emission rate



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Target Areas

Target Areas

Minimum Funding
Reserved and
Bonus Points

Bonus Points
Only

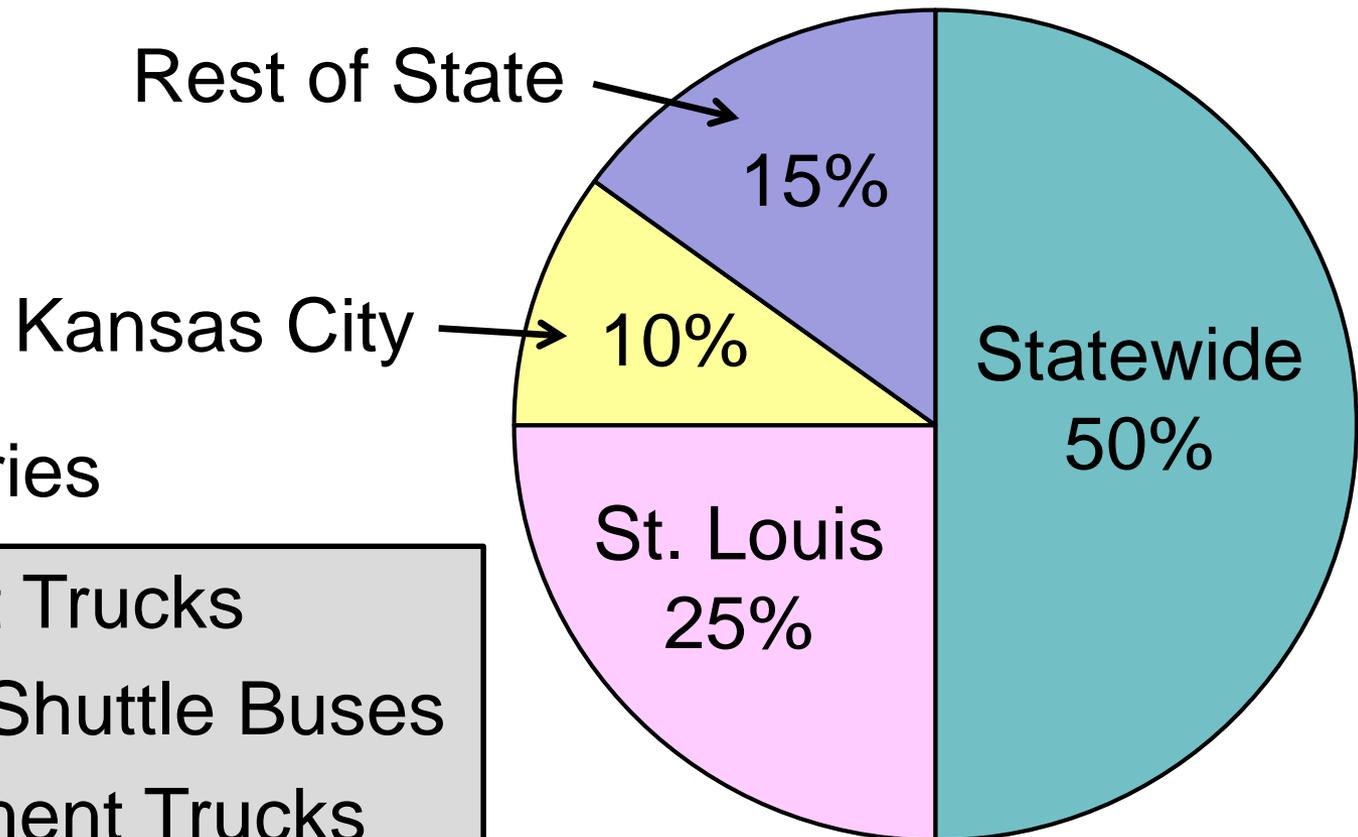
No Target
Areas

- 2. Government trucks
- 3. Transit and shuttle buses
- 4. Nongovernment trucks

- 5. Locomotive and marine
- 6. Airport and cargo equipment
- 7. DERA (Rounds 2 - 8)

- 1. School buses
- 7. DERA (Round 1 only)
- 8. EV Charging Stations

Target Areas: Minimum Funding Reserved



Award Categories

2. Government Trucks
3. Transit and Shuttle Buses
4. Nongovernment Trucks

Target Areas: Bonus Points (Target Area Pools)

St. Louis area pool

- Five bonus points possible for St. Louis City and County
- Two bonus points possible for St. Charles County
- 10 **negative** points possible for operating time outside the state

Kansas City area pool

- Five bonus points possible for Jackson County
- 10 **negative** points possible for operating time outside the state

Target Areas: Bonus Points (Statewide Pools)

Possible Bonus Points	Counties of Operation
6	St. Louis City and County
5	St. Charles and Jackson Counties
4	Jefferson and Franklin Counties
3	Clay and Platte Counties
2	Boone and Green Counties



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Award Category Details

Award Category 1: School Buses

- Lottery-style selection process
- Maximum awards and cost-share percentage different for government- vs. nongovernment-owned

Government-owned

- Public School Districts
- Charter Schools (RSMo 160.400)

Nongovernment-owned

- School Bus Contractors
- Private and/or Faith-based Schools

Award Category 1: School Buses

DERA Round (2018)

- Three bus maximum
- Applications not selected from DERA Round 1
- Projects subject to DERA cost-share and eligibility

Initial Round (2019)

- Maximum of two buses (2003 and older)
- Two application processes
- Up to 100% funding for schools meeting financial criteria

Up to six contingency rounds with lower cost-share

Award Category 1: School Buses

Contingency Rounds

Round 2

- Two bus maximum (2009 and older)
- Two application processes
- Increase award for donating a 2007-2009 bus to another school

Round 3

- Two bus maximum (2003 and older)
- Increase maximum award amounts for government-owned buses

Future Rounds

- Alternate between allowing newer vs. older buses and increasing maximum award amounts for government-owned buses

Financially Disadvantaged Schools

- Public school district must own bus
- Automatically eligible if state (DESE) classifies district as financially distressed
- Also eligible if it meets three of five criteria:
 - ❑ District free or reduced price meals: > 75 percent
 - ❑ Average daily attendance (ADA): 350 or less
 - ❑ Average age of school bus fleet: 2005 or older
 - ❑ Three-year average fund balance: < 20 percent
 - ❑ Three-year expenditure per ADA: < \$11,000

The department seeks your input on these criteria!

Award Category 1: School Buses

Government-owned maximum awards

Application Round	New Bus Fuel	Max Award per Bus
Initial Round (financially disadvantaged)	Diesel	\$90,000
	Alternative fuel	\$100,000
	All-electric	\$120,000
Initial Round and Round 2	Diesel	\$45,000
	Alternative fuel	\$50,000
	All-electric	\$60,000
Rounds 3 and 4	Diesel	\$67,500
	Alternative fuel	\$72,500
	All-electric	\$82,500
Rounds 5 and 6	Diesel	\$85,000
	Alternative fuel	\$90,000
	All-electric	\$100,000

Rounds 2, 4, and 6: Max award increases by \$5,000 if donating a 2007-2009 model year bus to another school

Award Categories 2, 3, and 4

Award Category	Selection Process	Target Areas	Contingency
2: Government Trucks	Competitive scored applications	Minimum reserved and bonus points	Reduce cost-share
3: Shuttle and Transit Buses			Reduce cost-share
4: Nongovernment Trucks			Move funding to categories 1, 2, and 3

Award Categories 5 and 6

5: Locomotive
and Marine

Both
Categories

6: Airport and
Cargo Equipment

Marine
vessels are
only eligible
for repower
(no full vessel
replacement)

- Competitive scored applications
- Target areas receive bonus points but no minimum reserved
- Contingency: Move funds to categories 1, 2, and 3

Only all-electric
repowers or
replacements
are eligible

Award Category 7: DERA

Application Round	Eligible Projects	Target Areas	Selection Process	Contingency
Round 1	School Buses	None	Lottery	Additional outreach
Rounds 2 and later	Eligible DERA projects, but must be ineligible for categories 1-6	Bonus points, but no minimum reserved	Competitive scored applications	<ul style="list-style-type: none"> • Open eligibility to all DERA projects • Move funds to categories 1, 2, and 3

All DERA rounds: department will only use VW funds necessary to qualify for the federal matching bonus

Award Category 8: EV Charging Stations

Phase	Eligible Projects	Target Areas	Selection Process	Contingency
Initial phase-highway network	Level 3 fast-charge stations along highways	Entire state	Hybrid: Team-driven selection and competitive applications	Fund workplace and multi-unit dwelling level 2 charging stations
Workplace and multi-unit dwellings	Level 2 charging stations at eligible locations	Minimum reserved and bonus points	Competitive scored applications (cost/plug)	Move funds to categories 1, 2, and 3



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Timing

Timing – Initial Application Rounds

Award Category	Timing – Initial Application Round
1. School Buses	Summer/fall 2019
2. Government Trucks	Late summer 2018
3. Transit and Shuttle Buses	Late summer 2018
4. Nongovernment Trucks	Late summer 2018
5. Locomotive and Marine	Late summer 2018
6. Airport and Cargo Equipment	Late summer 2018
7. DERA Option	Mid summer 2018
8. Electric Vehicle Charging Stations	Summer/fall 2019

Timing – Later Application Rounds

Award Category	Timing – Later Application Rounds
1. School Buses	Every one to two years
2. Government Trucks	Every two years
3. Transit and Shuttle Buses	Every two years
4. Nongovernment Trucks	None planned
5. Locomotive and Marine	None planned
6. Airport and Cargo Equipment	None planned
7. DERA Option	Every year (Jan./Feb.)
8. Electric Vehicle Charging Stations	2022

Administrative Costs

Administrative Costs

Fleet owners and third-parties (project sponsors) may not charge or receive VW funds for administrative costs

Why not?

- Higher total administrative costs mean fewer projects are funded
- Potential for unqualified project sponsors
- Audit and/or oversight required to verify third-party administrative costs
- Increased incentive for fraud and/or waste

Administrative Costs

For electric vehicle charging infrastructure:

Costs paid to third parties for planning, zoning, electrical engineering work and other services are eligible as long as they are necessary to ensure the safe, legal, and reliable installation of infrastructure

For engine repowers and retrofits:

The installation labor is an eligible project expense

Administrative Costs

For every funded project, the department will charge actual administrative costs needed to:

- Select and oversee the project
 - Track and report project status
 - Verify eligibility of costs
 - Request/disburse funding
- All department administrative costs may not exceed 10 percent of Missouri's total allocation
- Department intends to keep administrative costs as low as possible

Anticipated Timeline

Timing	Milestone
Oct. 2, 2017	Trust effective date (TED)
November 2017	Missouri filed its certification with the court and trustee
November 2017 - February 2018	Department held outreach and advisory committee meetings to discuss Volkswagen settlement and solicit input
January 2018	Trustee approved Missouri's beneficiary certification form
April 2018	Missouri released proposed plan and guidelines for using settlement funds; public may comment on plan
May 4, 2018	Deadline for public to comment on draft plan and guidelines
June 2018	Missouri finalizes plan and guidelines and submits the plan to trustee
Summer 2018	Missouri begins accepting applications

Next Steps

- Review and consider comments
- Finalize the plan and guidelines
- Submit plan to the trustee
- Develop application forms and instructions
- Update website
 - Add application forms and instructions
 - Add project information for selected projects
- Assemble the EV charging station team

Comments and Suggestions?

The department will accept comments through **Friday May 4, 2018**, on the draft beneficiary mitigation plan and draft implementation guidelines

Specific comments encouraged:

- Amounts in award categories
- Cost share percentages
- Competitive scoring of applications
- Target areas
- Financially disadvantaged school districts
- Contingencies
- Funding rounds

Volkswagen Trust

Be Part of the Solution

Read the Draft Plan and Guidelines and Submit Comments

dnr.mo.gov/env/apcp/vw/readvwplan.htm

Contact information:

Missouri Department of Natural Resources

Air Pollution Control Program

Volkswagen Team

Phone: 573-751-4817

dnr.mo.gov/env/apcp/vw/index.html

Comments are due
May 4, 2018