

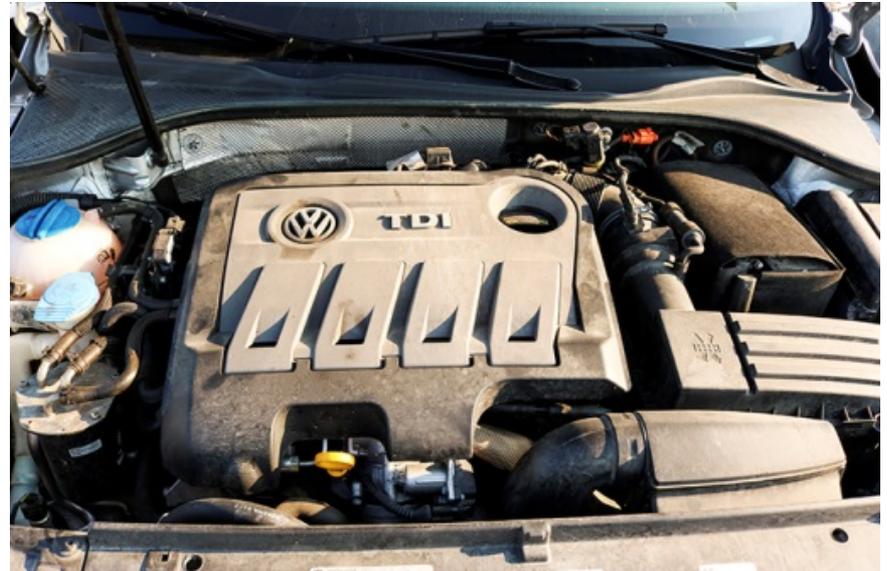


**MISSOURI**  
DEPARTMENT OF  
NATURAL RESOURCES



# Volkswagen (VW) Settlement

Advisory  
Committee  
Meeting



# Presentation Overview

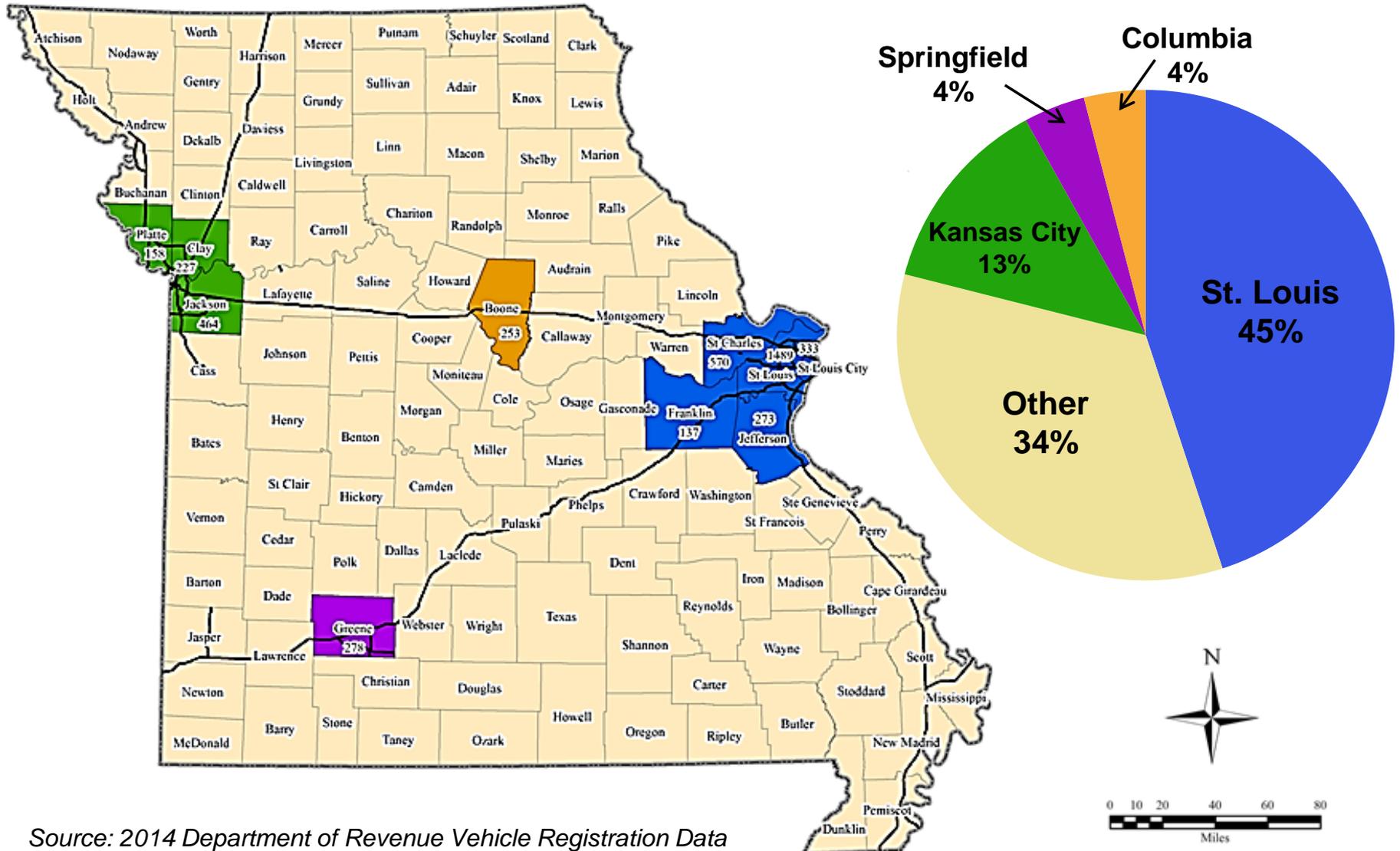
- Volkswagen's violations
- NO<sub>x</sub> emissions overview
- VW Settlement
  - Consumer buy-back/modification program
  - Investment in charging stations for zero-emission vehicles and consumer education about the vehicles
- Environmental mitigation trust fund
  - Eligible projects
  - Missouri's beneficiary mitigation plan
  - Timeline

# Volkswagen's Violations

In 2015, VW admitted using software that caused diesel vehicles to perform differently during emissions tests so they would pass.

- American consumers bought 590,000 VW and Audi vehicles with these emissions defeat devices
  - Missourians bought 7,500 affected vehicles
- During normal operation, these vehicles emitted nitrogen oxides (NO<sub>x</sub>) at levels higher than EPA standards

# Affected Volkswagen Vehicles



Source: 2014 Department of Revenue Vehicle Registration Data

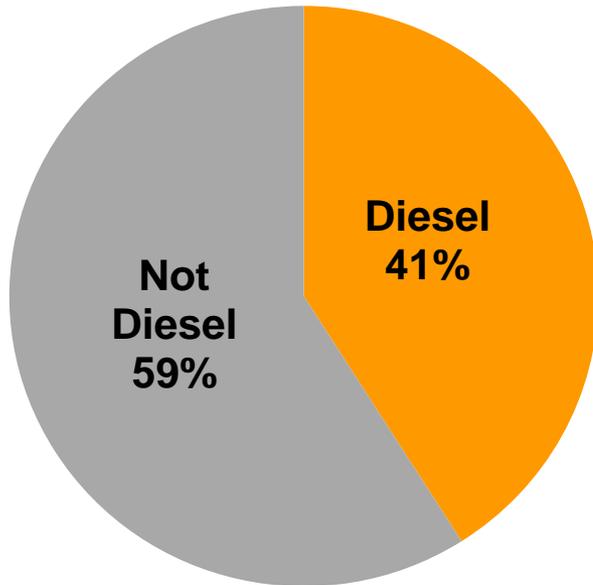
# Why Does NO<sub>x</sub> Matter?

- Anything that burns fuel emits No<sub>x</sub>
  - Coal, natural gas, petroleum products (oil, diesel, gasoline) and biofuel (wood, ethanol, biodiesel)
- NO<sub>x</sub> causes negative health effects
- NO<sub>x</sub> also contributes to pollution from particulate matter and ground-level ozone

# Why Does NO<sub>x</sub> Matter?

- Ozone and particulate matter are respiratory irritants
  - Especially affect children and the elderly as well as people with pre-existing respiratory conditions, such as asthma
- EPA sets standards for NO<sub>x</sub>, ozone and particulate matter in outdoor air to protect public health

# Missouri NO<sub>x</sub> Emissions Sources



	Not Diesel (59%)		Diesel (41%)	
	(%)	(tons/year)	(%)	(tons/year)
<b>Point</b> (industry, power plants)	27%	106,302	1%	2,085
<b>Nonpoint</b> (residential fire places)	12%	48,507	9%	34,912
<b>Onroad</b> (cars and trucks)	16%	64,286	23%	91,282
<b>Nonroad</b> (tractors, mowers, boats, trains)	2%	6,473	8%	29,393
<b>Event</b> (wild fires and prescribed burns)	2%	9,393	0%	0

## Top Diesel Emission NO<sub>x</sub> Sources

- Highway Heavy-Duty Vehicles
- Railroads
- Off-Highway Farm Use
- Off-Highway Marine
- Highway Light-Duty Vehicles



# Environmental Mitigation Trust

- Volkswagen to pay \$2.9 billion to an environmental mitigation trust fund
- **Missouri's share of trust: \$41 million**
- State to use funds to counteract excess  $\text{NO}_x$  emissions from faulty VW vehicles



## Trustee

- Trustee to manage and disburse funds:  
**Wilmington Trust Inc.**
  - Based in Delaware
  - Founded in 1903
- Main public website about trust:  
[vwenvironmentalmitigationtrust.com](http://vwenvironmentalmitigationtrust.com)

## Beneficiary Mitigation Plan

- MoDNR - lead agency for Missouri
  - Responsible for developing plan and overseeing projects

### Attend a meeting.

Access the meeting schedule.



### Get involved.

Join the VW Settlement Advisory Committee.



### Learn More.

Learn about the settlement, health effects and more.



### Stay informed.

Sign up to receive the latest Volkswagen email updates.



### Be part of the solution.

Share your ideas and project proposals here.



### Apply for funding.

Check back for funding opportunities in Missouri.



## Plan Components

- Types of projects
  - All projects must fall under one of 10 categories
- Amounts dedicated to various project types
- Process and timing for selecting and doing projects
- Target areas for projects
  - Consider air quality and local sources of NO<sub>x</sub> emissions
  - Consider location of affected VW vehicles
- Estimated emission reductions



# Eligible Mitigation Actions

1. Large trucks (class 8)
2. School, shuttle and transit buses
3. Locomotives
4. Ferries/tugboats
5. Marine shorepower
6. Medium trucks (class 4-7)
7. Aircraft service equipment
8. Forklifts and cargo-handling equipment
9. Charging stations for electric vehicles
10. DERA option

# Eligible Mitigation Actions

## Large and Medium Trucks



### Repowers (New engine)

#### Government owned

- 100% for new diesel, alternative fuel or all-electric engine

#### Non-Government owned

- 40% for new diesel or alternative fuel engine
- 75% for new all-electric engine

### Replacements (New truck)

#### Government owned

- 100% for new diesel, alternative fuel or all-electric vehicle

#### Non-Government owned

- 25% for new diesel or alternative fuel vehicle (50% for drayage vehicles)
- 75% for new all-electric vehicle

## School, Shuttle and Transit Buses



**Repowers**  
(New engine)



**Replacements**  
(New bus)

### Government owned

- 100% for new diesel, alternative fuel or all-electric engine

### Non-Government owned

- 40% for new diesel or alternative fuel engine
- 75% for new all-electric engine

### Government owned

- 100% for new diesel, alternative fuel or all-electric bus

### Non-Government owned

- 25% for new diesel or alternative fuel bus
- 75% for new all-electric bus

## Switch-Yard Locomotives



### Repowers (New engine)

#### Government owned

- 100% for new diesel, alternative fuel or all-electric engine

#### Non-Government owned

- 40% for new diesel or alternative fuel engine
- 75% for new all-electric engine

### Replacements (New locomotive)

#### Government owned

- 100% for new diesel, alternative fuel or all-electric locomotive

#### Non-Government owned

- 25% for new diesel or alternative fuel locomotive
- 75% for new all-electric locomotive

## Ferries and Tugboats



### Repowers (New engine)

#### Government owned

- 100% for new diesel, alternative fuel or all-electric engine

#### Non-Government owned

- 40% for new diesel or alternative fuel engine
- 75% for new all-electric engine



### Replacements (New vessel)



Replacements for ferries and tugboats are not eligible projects.

## Marine Shorepower

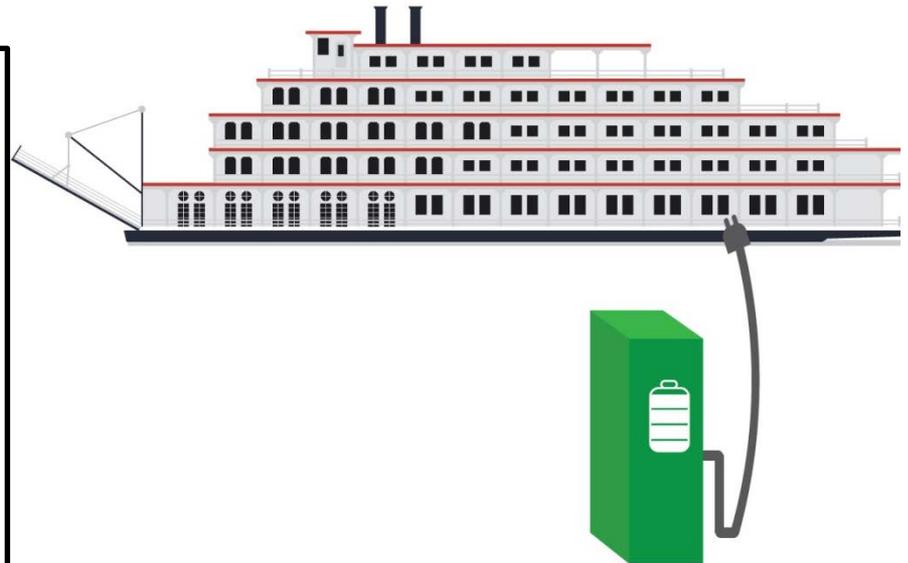
- Systems installed on marine vessels and at ports that enable vessels' main and auxiliary engines to remain off when vessels are at berth

### Government owned

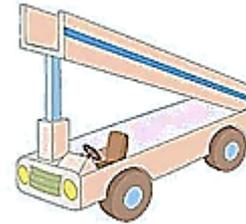
- 100% for new shorepower systems

### Non-Government owned

- 25% for new shorepower systems



## Airport Ground Support Equipment



### Repowers (New engine)

#### Government owned

- 100% for new all-electric engine

#### Non-Government owned

- 75% for new all-electric engine

### Replacements (New equipment)

#### Government owned

- 100% for new all-electric replacement

#### Non-Government owned

- 75% for new all-electric replacement



Eligible projects under this category do not include new equipment or new engines that use diesel or alternative fuels.

## Forklifts and Cargo-Handling Equipment

**Repowers  
(New engine)**



**Replacements  
(New vessel)**



**Government owned**

- 100% for new all-electric engine

**Non-Government owned**

- 75% for new all-electric engine

**Government owned**

- 100% for new all-electric replacement

**Non-Government owned**

- 75% for new all-electric replacement



Eligible projects under this category do not include new equipment or new engines that use diesel or alternative fuels.

## Zero-Emission Vehicle Equipment

### Electric Vehicle

Level 1, Level 2 or fast-charging stations for electric vehicles

Must be in a public place, work place or multi-unit dwelling



### Hydrogen Fuel Cell

Must be publicly available with dispensing pressure of 70 MPa



## Zero-Emission Vehicle Equipment

### Electric Vehicle

100% for government-owned public charging stations

80% for privately owned public charging stations

60% for stations at work place or multi-unit dwelling



### Hydrogen Fuel Cell

33% for dispensing capacity of 250 kg/day or more

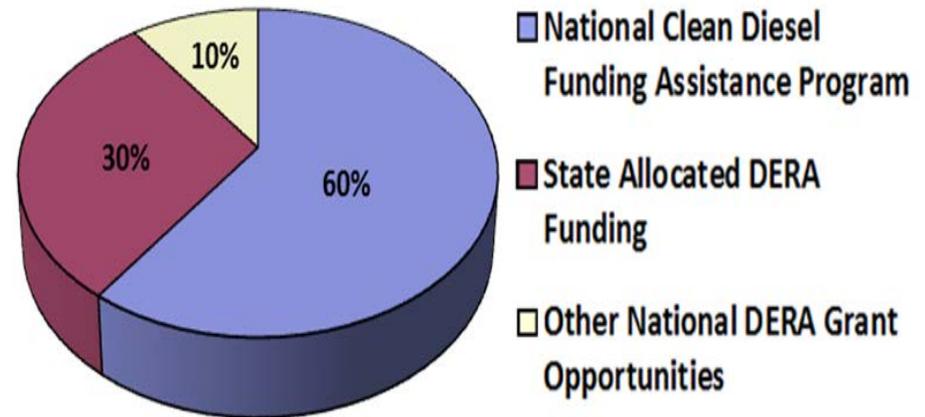
25% for dispensing capacity of 100 - 250 kg/day



## Diesel Emissions Reduction Act

### What is DERA?

- DERA is a federal program designed to upgrade and replace older diesel engines (medium to heavy duty)
- Projects are similar to those in the VW consent decree
- New funding and programs developed each year (subject to appropriations)
- Three funding pools exist
- Missouri has implemented DERA since 2008



## DERA Option Under VW

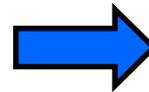
- Wider range of eligible projects
- State may use VW funds as a voluntary match to qualify for bonus federal DERA funding
  - States that provide voluntary match equal to the initial federal grant receive bonus federal dollars – an extra 50%



Initial federal DERA grant



VW trust funds as match



**BONUS** federal DERA funds

- State cannot use VW trust funds to meet DERA's nonfederal mandatory matching requirements

## DERA Option—Additional Projects \*

<b>Vehicle Type</b>	<b>Project Type</b>
<b>Long-Haul Locomotives</b>	<b>Replace, retrofit, repower or upgrade engine; install equipment to reduce idling</b>
<b>Agriculture Equipment</b>	<b>Replace, repower or upgrade engine</b>
<b>Construction Equipment</b>	<b>Replace, repower or upgrade engine</b>
<b>Commercial Marine – other than ferries and tugboats (Includes riverboats, cruise liners and fishing boats.)</b>	<b>Repower or upgrade engine</b>
<b>Onroad medium- to heavy-duty trucks</b>	<b>Retrofit engine or install equipment to reduce idling</b>
<b>Transport refrigeration units</b>	<b>Replace or repower engine</b>

\* This is not an exhaustive list.

# Scrappage Requirements for Projects

- Consent decree requires all replaced engines and vehicles to be scrapped
- Engine scrappage: Drill or create a 3-inch hole in engine block
- Vehicle scrappage: Cut chassis frame in half

## Scrappage Requirements (Required for Repowers and Replacements)



## Scrappage Requirements (Required for Repowers and Replacements)



# Anticipated Timeline

<b>Timing</b>	<b>Milestone</b>
Oct. 2, 2017	Trust effective date (TED)
November 2017 - January 2018	Department holds outreach and advisory committee meetings to discuss Volkswagen settlement and solicit input.
Dec. 1, 2017	Missouri must submit beneficiary certification form to court.
January 2018	Trustee approves certification forms for beneficiaries.
March 2018	Missouri releases proposed plan for using settlement funds. Public may comment on plan.
May 2018	Missouri Beneficiary Mitigation Plan finalized.
Summer 2018	Missouri begins accepting applicants.

# Resources

MoDNR's Volkswagen Settlement Website

[dnr.mo.gov/env/apcp/vw](https://dnr.mo.gov/env/apcp/vw)

EPA's Volkswagen Settlement Website

[epa.gov/enforcement/volkswagen-clean-air-act-civil-settlement](https://epa.gov/enforcement/volkswagen-clean-air-act-civil-settlement)

Volkswagen Consumer Buyback/Modification Program

[vwcourtsettlement.com/en](https://vwcourtsettlement.com/en)

Volkswagen Electrify America Website

[electrifyamerica.com/our-plan](https://electrifyamerica.com/our-plan)

Court Settlement Documents

[cand.uscourts.gov/crb/vwmdl](https://cand.uscourts.gov/crb/vwmdl)

# Questions?

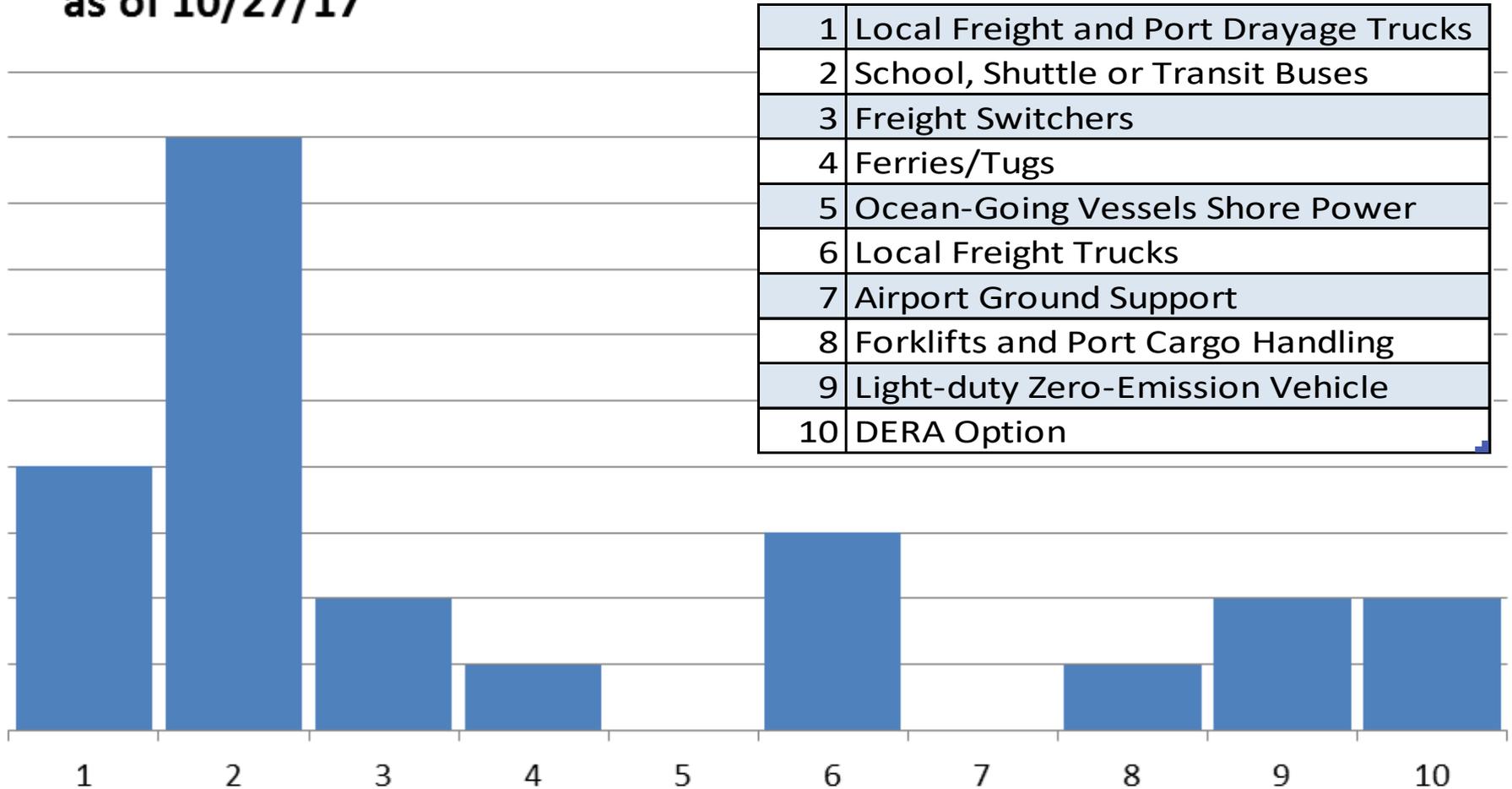
Missouri Department of Natural Resources  
Air Pollution Control Program  
Volkswagen Team  
Phone: 573-751-4817

[dnr.mo.gov/env/apcp/vw](http://dnr.mo.gov/env/apcp/vw)



# Comment Forms Received (24 Total Selections)

as of 10/27/17



1	Local Freight and Port Drayage Trucks
2	School, Shuttle or Transit Buses
3	Freight Switchers
4	Ferries/Tugs
5	Ocean-Going Vessels Shore Power
6	Local Freight Trucks
7	Airport Ground Support
8	Forklifts and Port Cargo Handling
9	Light-duty Zero-Emission Vehicle
10	DERA Option

## Get Involved!

- Submit comments and ideas to the department
- Sign up for updates via our website
- Join Missouri's VW Advisory Committee
- Attend a meeting – dates for public meetings appear on our website
- Stay tuned for proposed plan to be posted for comments February to March of 2018

[dnr.mo.gov/env/apcp/vw](http://dnr.mo.gov/env/apcp/vw)