Funding Your Sustainable Fleet Webinar

Thursday, September 17, 2020

Sustainable Transportation

Presented by The Transportation & Innovation Partners

Alliant Energy | MGE Madison Gas and Electric | Wisconsin Clean Cities (Established 1994) | City of Madison Wisconsin

Sustainable Transportation

transportation • sustainability • technology • innovation

2020 Virtual Series

A virtual educational series for fleets

Presented by The Transportation & Innovation Partners

Alliant Energy

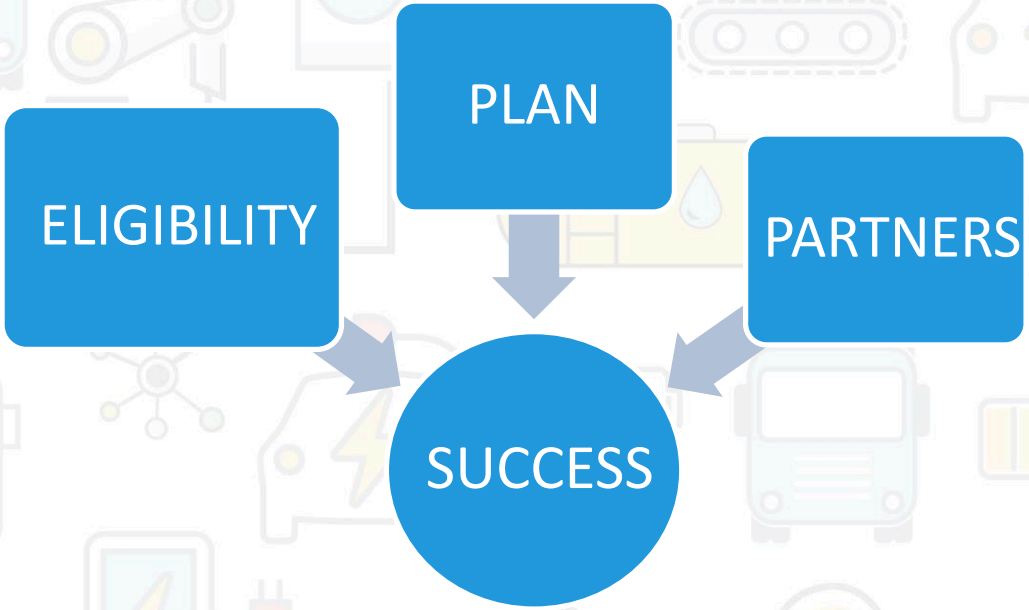
MGE Madison Gas and Electric

Wisconsin Clean Cities Established 1994

City of Madison Wisconsin

Polls

ARE YOU GRANT READY??



Lorrie Lisek
Executive Director
414-221-4958
lorrie.lisek@wicleancities.org
www.wicleancities.org

WISCONSIN CLEAN CITIES
Established 1994

Funding Your Sustainable Fleet Webinar

September 17, 2020, 1 p.m.-2 p.m. CDT

Joe Pater
Director, OEI

Olivia Shanahan
Energy Grants Manager, OEI

OEI
Wisconsin Office of Energy Innovation

Wisconsin Office of Energy Innovation

Vision

Securing Wisconsin's energy future and improving its economy and environment

Mission

The Wisconsin Office of Energy Innovation promotes innovative and effective energy policies and programs that benefit Wisconsin's citizens and businesses

Values

OEI is committed to:

- Open Communication and Transparency
- Collaboration and Teamwork
- Being Forward Looking and Solutions Oriented
- Building and Maintaining Expert-Level Knowledge
- Economic Viability

OEI
Wisconsin Office of Energy Innovation

2020 Energy Innovation Grant Program(EIGP)

Strategic Objectives:

- Support innovative energy technologies such as energy storage and alternative fuel vehicles
- Provide equitable access to the benefits of clean energy, efficiency, and preparedness by reaching broad applicant types
- Incorporate comprehensive energy planning

Policy Drivers:

- Reduce carbon emissions and mitigate the effects of climate change
- Promote equity and inclusion
- Stimulate the economy or create jobs

Eligible Applicants:

- Municipalities, Universities, Schools, Hospitals, and Like Entities (MUSH Market)
- Manufacturers

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Eligible Activities for EIGP 2020

Activity	Maximum Grant Request	Available Funds per Activity
1. Renewables and Energy Storage	See below	$2.5 million
Renewable projects (other than Solar Photovoltaic Systems)	$500,000	
Solar Photovoltaic Systems	22% up to $250,000	
Energy Storage System	$250,000	
Renewable Systems with Energy Storage	$500,000 (Solar PV) $750,000 (all other Renewables)	
2. Energy Efficiency and Demand Response	$1 million	$3.0 million
3. Electric and RNG Vehicles and Infrastructure	$100,000	$1.0 million
Light-Duty and Off-Road Incentive	$5,000	
Medium-Duty and Heavy-Duty Incentive	$10,000	
Infrastructure (host-owned level 2 electric vehicle charger, fuel cell charger, or RNG infrastructure)	50% up to $2,000	
4. Comprehensive Energy Planning	$100,000	$500,000
	Total Funds Available	$7.0 million

OEI@Wisconsin.gov

Example Project: City of Madison

- $129,000 grant was provided to purchase 20 Chevrolet Bolts(full plug-in Electric vehicle)
- Install two Level 2 EV charging stations in city-owned facilities
- The city of Madison was required to match $10,000
- Chevrolet Bolts can travel 240 miles on a single charge
- 38% of the energy in Wisconsin is consumed by the transportation industry and this grant was aimed towards transforming the fleet and reducing carbon footprint

2020 EIGP: Stay up to date

Timeline:

- ❑September, 2020: Program design finalized by Commission Order (in progress)
- ❑October, 2020: Request for Proposals issued
- ❑January, 2021: Applications due
- ❑Spring 2021: Awards made with the goal of completing projects within 12 month performance period

For Updates:

Subscribe to Docket # 9709-FG-2020 for automatic updates.
Visit psc.wi.gov and click “e-subscribe” at the bottom of the screen.

Contact Us!

The Wisconsin Office of Energy Innovation is here to answer questions, meet with constituents, and connect you with our vast network of state and national resources.

Email: OEI@wisconsin.gov

Visit: https://psc.wi.gov/Pages/Programs/OEI.aspx

Mail: Public Service Commission of Wisconsin

Wisconsin Office of Energy Innovation
4822 Madison Yards Way
Madison, WI 53705

OEI
Wisconsin Office of Energy Innovation

FTA

FEDERAL TRANSIT ADMINISTRATION

FTA Funding Sources for Sustainable Fleets

Matt Lange
Transportation Program Specialist
Region V
September 17, 2020

U.S. Department of Transportation
Federal Transit Administration

FTA Discretionary Award Options

- Buses and Bus Facilities Program (5339)
- Low or No Emission Vehicle Program (Low-No)

Discretionary Awards

- Opportunities for FTA award recipients to secure additional funding through competitive processes
- Offered only during certain time periods
- Each discretionary program uses different evaluation criteria, award limits, and other requirements

Buses and Bus Facilities Program

- Makes federal resources available to states and direct recipients to:
  - Replace, rehabilitate and purchase buses and related equipment
  - Construct bus-related facilities including technological changes or innovations to modify low or no emission vehicles or facilities

Buses and Bus Facilities Program

- Over $464 million awarded in FY2020
- Eligible recipients include:
  - Designated recipients that allocate funds to fixed route bus operators
  - States or local governmental entities that operate fixed route bus service
  - Indian tribes

Buses and Bus Facilities Program

- Eligibility (cont.)
  - Eligible recipients that receive grant funding under the formula or discretionary programs may allocate amounts from the grant to subrecipients that are public agencies or private nonprofit organizations engaged in public transportation

Buses and Bus Facilities Program

- **Match:** The federal share of eligible capital costs is 80 percent of the net capital project cost
- **Availability**: Funds are available the year appropriated plus three years
- **Deadline**: Spring (most recently April 29, 2020)
- **www.transit.dot.gov/bus-program**

Buses and Bus Facilities Program

State	Project Sponsor	Project Description	Funding Amount
IL	Bloomington-Normal Public Transit System (DBA Connect Transit)	Build the Downtown Bloomington Transportation Center to replace the current on-street bus transfer area	$8,000,000
IL	Greater Peoria Mass Transit District (CityLink)	Construct a new operations and maintenance facility as well as upgrade existing facilities	$10,000,000
IL	Pace Suburban Bus Division of the Regional Transportation Authority	Lease a bus storage and maintenance facility until construction is finished on a new facility at the end of 2022.	$850,464
IN	Bloomington Public Transportation Corporation	Purchase electric buses and charging stations	$3,200,000
IN	Greater Lafayette Public Transportation Corporation	Expand and upgrade its CNG fueling station	$1,200,000
MI	City of Battle Creek (Battle Creek Transit)	Purchase buses to replace aging vehicles that have exceeded their useful life	$5,340,000
MI	Capital Area Transportation Authority (CATA)	Rehabilitate its bus terminal in downtown Lansing	$1,824,416
MI	Michigan Department of Transportation	Bus facility rehabilitation and expansion projects for four rural transit providers	$2,365,600
MI	Michigan Department of Transportation	Purchase transit vehicles for rural transit agencies across the state	$4,924,382
MI	Michigan Department of Transportation	Construction of a new headquarters and transfer station for Bay Area Transportation Authority	$13,380,000

Buses and Bus Facilities Program

State	Project Sponsor	Project Description	Funding Amount
MN	Metropolitan Council on behalf of Minnesota Valley Transit Authority (MVTA)	Improve and modernize the Burnsville Bus Garage	$2,800,000
MN	Minnesota State Department of Transportation	Purchase new buses for rural transit agencies throughout the state	$4,412,890
OH	Butler County Regional Transit Authority	Construct bus storage and maintenance facilities	$2,000,000
OH	Greater Dayton Regional Transit Authority	Purchase new buses to replace aging buses that have exceeded their useful life	$4,324,608
OH	Portage Area Regional Transportation Authority	Purchase a new CNG-powered vehicle to replace an aging diesel bus	$446,742
WI	City of Madison	Purchase new 60-foot articulated buses and upgrade a maintenance facility to accommodate the larger buses	$4,676,760
WI	Milwaukee County	Replace an aging roof that has exceeded its useful life at the maintenance facility	$3,003,628
		Region V (IL, IN, MI, MN, OH, WI) Total	**$72,749,490**

Low or No Emission Vehicle Program

- Provides funding to state and local governmental authorities for the purchase or lease of:
  - Zero-emission and low-emission transit buses
  - Acquisition, construction, and leasing of required supporting facilities
- Over $130 million awarded in FY2020

Low or No Emission Vehicle Program

- Eligible applicants include:
  - Direct recipients of FTA grants under the Section 5307 Urbanized Area Formula program
  - States
  - Indian Tribes
  - Proposals for funding eligible projects in *rural* areas must be submitted as part of a consolidated state proposal (excepting Tribes)
  - States and other eligible applicants also may submit consolidated proposals for projects in urbanized areas

Low or No Emission Vehicle Program

- **Match:**
  - The Federal share of the cost of leasing or purchasing a transit bus is not to exceed 85 percent of the total transit bus cost
  - The federal share in the cost of leasing or acquiring low- or no-emission bus-related equipment and facilities is 90 percent of the net project cost

Low or No Emission Vehicle Program

- **Availability**: Funds are available the year appropriated plus three years
- **Deadline**: Spring (Most recently April 16, 2020)
- https://cms7.fta.dot.gov/funding/grants/lowno

  (search "FTA lowno")

Low or No Emission Vehicle Program

State	Project Sponsor	Project Description	Funding Amount
IL	Rock Island County Metropolitan Mass Transit District (MetroLINK)	Purchase new electric buses to replace buses that have exceeded their useful life and to expand service	$2,965,851
MI	Michigan Department of Transportation	Replace aging diesel buses with zero-emission electric buses and related charging station infrastructure	$6,393,031
MN	City of Rochester	Purchase new electric buses for service expansion and related charging infrastructure	$3,156,746
OH	Laketran	Purchase an electric bus with support charging infrastructure	$1,900,000
WI	City of Racine	Purchase battery electric buses, charging stations and infrastructure upgrades	$3,183,723
		Region V (IL, IN, MI, MN, OH, WI) Total	$17,599,351

FY2020 Timeline

- Notices for both programs were announced in **January** (Low-No) and **February** (5339)
- Deadlines were originally set for **March**
- Selections were announced in **June** (Low-No) and **August** (5339)

Prepare to Apply

- Make sure you are registered at Grants.gov. The registration process can take **several weeks**. The link to register is: www.grants.gov/web/grants/register.html
- It is recommended you submit your application at least 72 hours ahead of the deadline to correct any problems that arise during submission (time allowances are not made for technical problems)

Notices of Funding Opportunity

- www.transit.dot.gov email alerts
- www.grants.gov email alerts
- https://cms7.fta.dot.gov/funding/grants/notices

  (search "FTA NOFO")
- Technical assistance: www.n-catt.org

Contact Info

Matt Lange

FTA Region 5

Matthew.Lange@dot.gov

312.353.4118

U.S. Environmental Protection Agency's Diesel Emission Reduction Program

Funding Your Sustainable Fleet Webinar

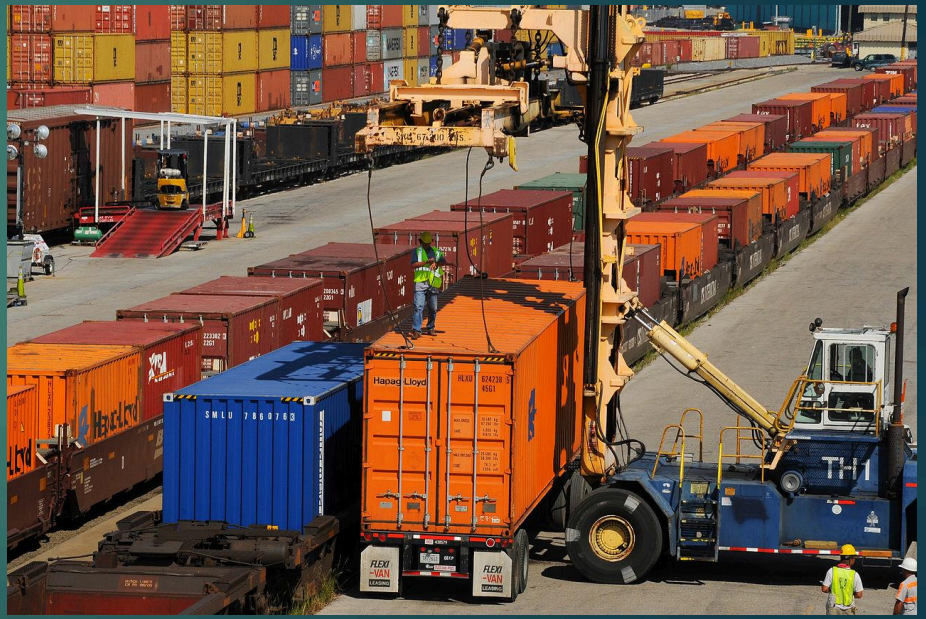
September 17, 2020

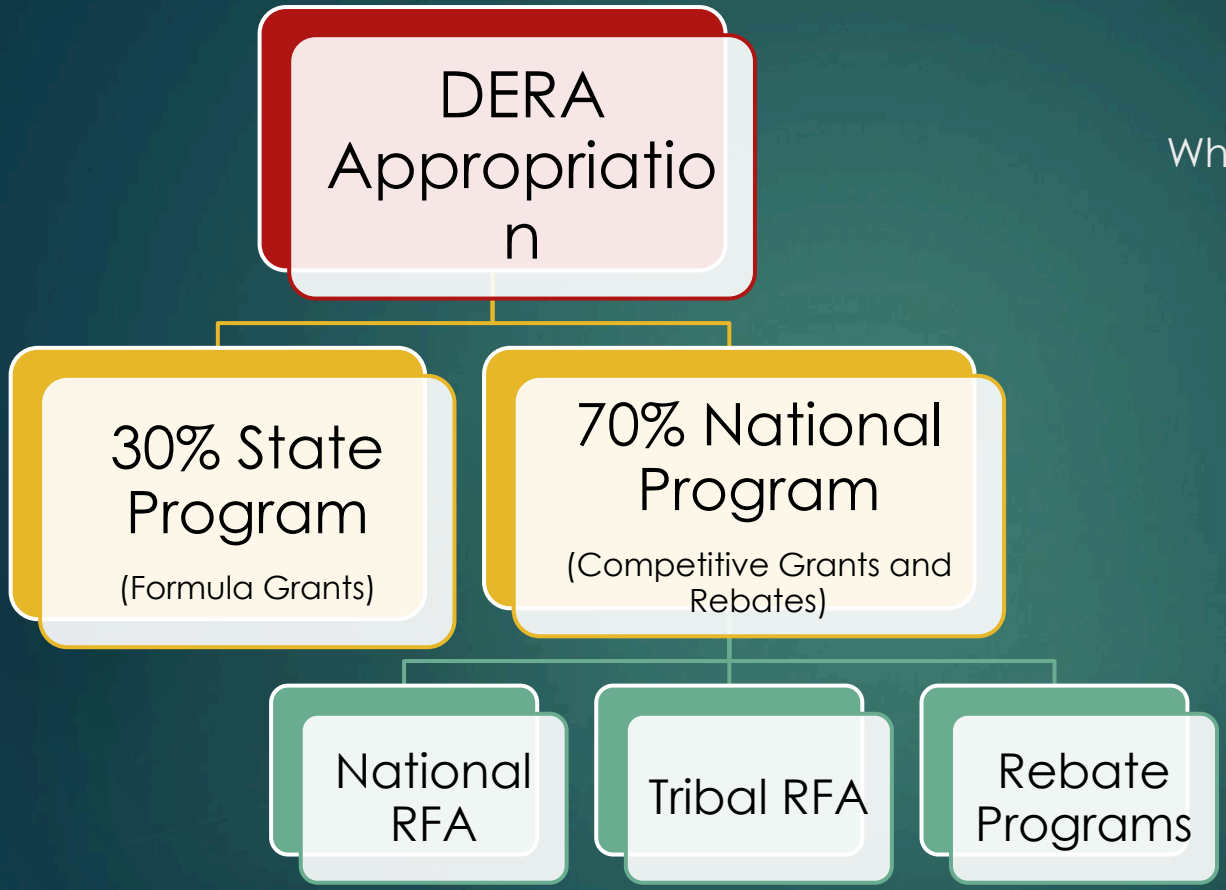
Frank Acevedo, Mobile Source Program Manager

www.epa.gov/cleandiesel

Diesel Emissions Reduction Act

- Provides funding, on a competitive basis, to eligible entities, to achieve significant reductions in diesel emissions in terms of pollution produced and diesel emissions exposure, particularly from fleets operating in areas designated by the Administrator as poor air quality areas





Who can apply for DERA Grants?

- Regional, state, local, tribal or port agency with jurisdiction over transportation or air quality; and
- Nonprofit organization or institution which
  - Represents or provides pollution reduction or educational services to persons or organizations that operate diesel fleets; or
  - Has, as its principle purpose, the promotion of transportation or air quality
- For-profits and individuals can benefit through partnerships with

Eligible Vehicles, Engines & Equipment

- May include, but are not limited to:
  - Buses;
  - Class 5 – Class 8 heavy-duty highway vehicles;
  - Marine engines and now vessel replacements;
  - Locomotives engines; and
  - Non-road engines, equipment or vehicles used in:
    - Construction; Handling of cargo (including at a port or airport); Agriculture; Mining; or Energy production (including stationary generators and pumps)

What will EPA Fund?

- **Certified Clean Alternative Fuel Conversion:** 40%
- **Certified Vehicle/Equipment Replacement**:
  - 25% of a vehicle powered by a diesel or alternative fueled engine (including hybrids) certified to EPA emission standards;
  - 35% of a vehicle powered by an engine certified to meet CARB's Optional Low-NOx Standards;
  - 45% of a vehicle powered by a zero tailpipe emission power source.
  - **Replacement of Drayage Trucks**: 50%
- **Certified Engine Replacement:**
  - 40% of a diesel or alternative fueled engine (including hybrids) certified to EPA emission standards
  - 50% of the cost of an engine certified to meet CARB's Optional Low-NOx Standards
  - 60% of the cost of a zero tailpipe emission power source
- **Verified Idle Reduction Technologies:**
  - **On-Highway Idle Reduction Technologies:** 100% if combined, 25% if stand-alone.
  - **Locomotive Idle Reduction Technologies**: 40%
  - **Marine Shore Connection Systems:** 25%
  - **Electrified Parking Spaces**: 30%

DERA Program Benefits and Accomplishments (FYs 2008-2016)

Investment of DERA Program	Emission and Fuel Reductions
$629 million funds awarded	472,700 tons of NO_x
67,300 engines retrofitted or replaced	15,490 tons of PM
Up to $19 billion in monetized health benefits	17,700 tons of hydrocarbon
Up to 2,300 fewer premature deaths	61,550 tons of carbon monoxide
64% of projects targeted to areas with air quality challenges	5,089,170 tons of carbon dioxide
3:1 leveraging of funds from non-federal sources	454 million gallons of fuel saved

Clean Diesel = Clean Air

DERA SUCCESSES FY 2008-FY 2016

67,300 Engines retrofitted or replaced

472,700 tons of NOx and **15,490** tons of PM and **5.1 million** tons of CO^2 prevented

454 Million gallons of fuel saved

Over **$629 Million** funds awarded

REACHING AREAS OF NEED

64%

64% of projects targeted to areas with air quality challenges

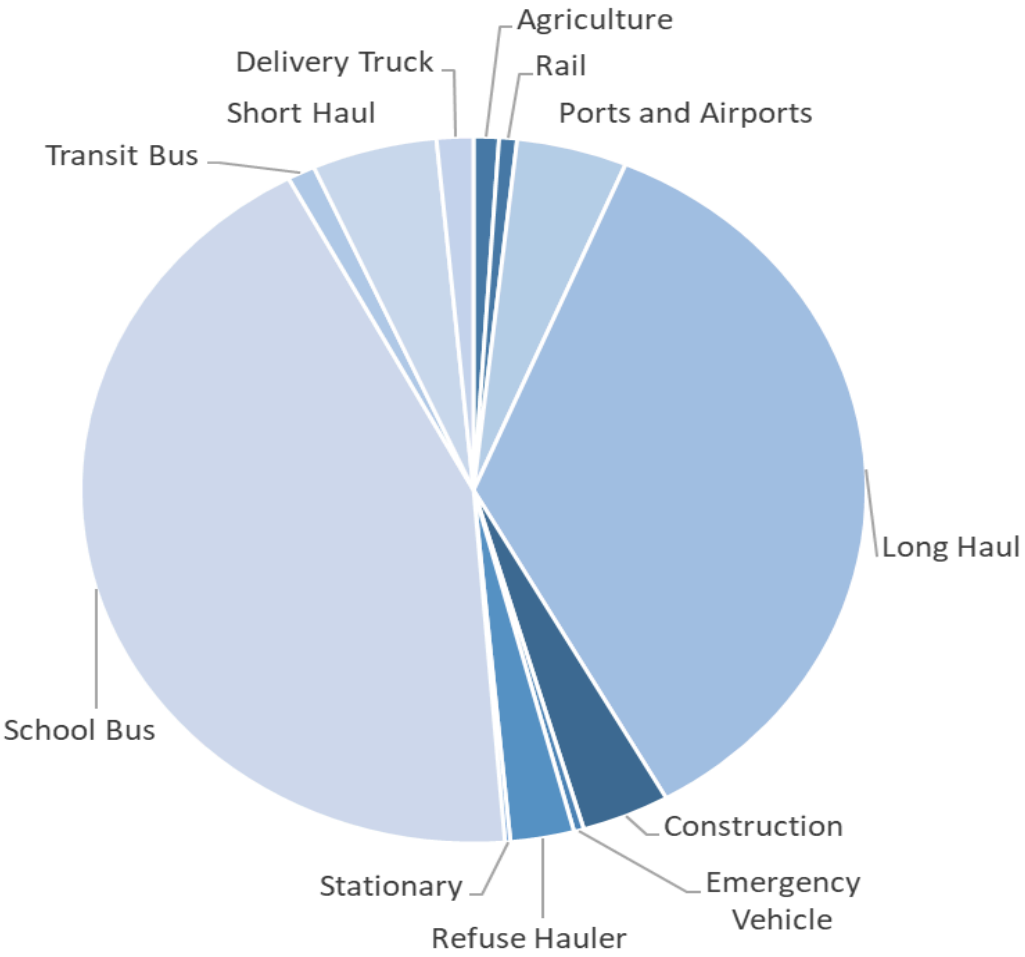
CLEAN AIR BENEFITS

$19B

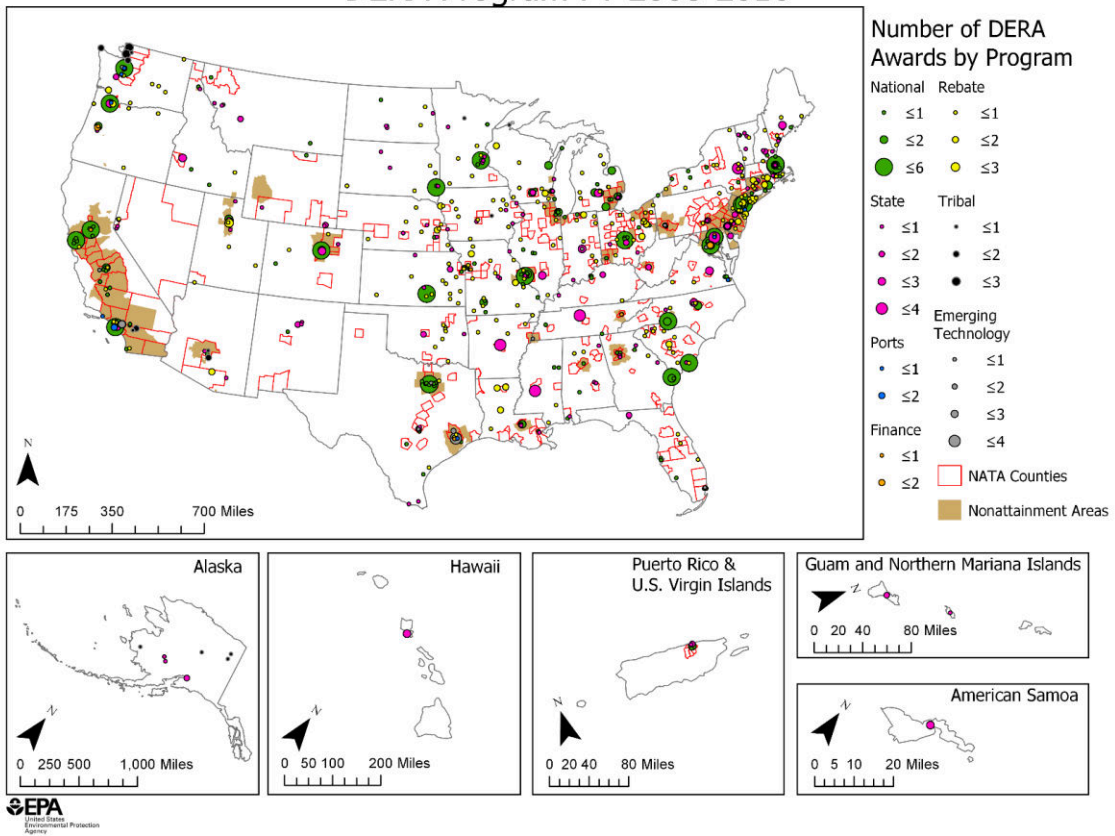
$1 federal aid attracts **$3** in non-federal matching funds to provides up to **$19 billion** in monetized health benefits

Source: 4th DERA Report to Congress

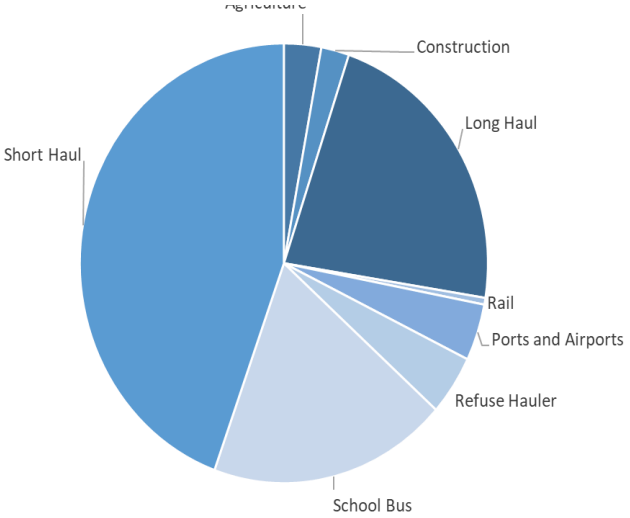
DERA Funded Sectors 2008-2016



DERA Program FY 2008-2016



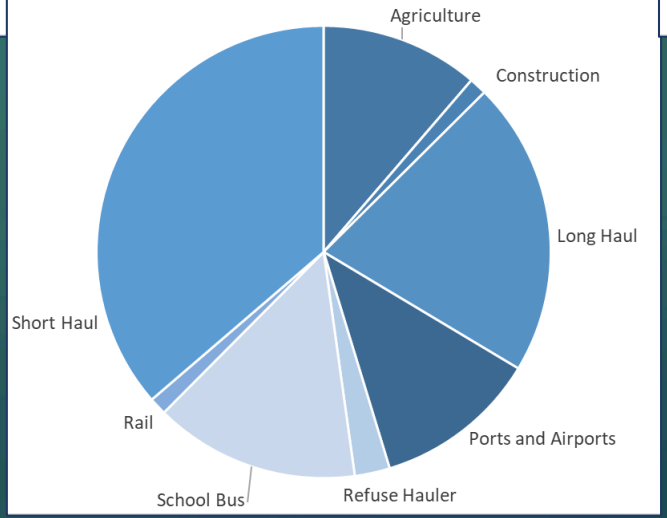
FY 2014 DERA Funding by Sector



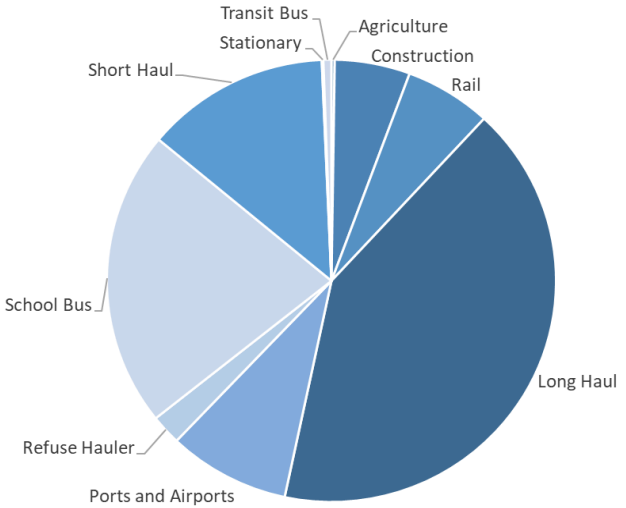
EPA funded 21 national competitive grants in FY 2014 for a total of $10.6 million. These grants upgraded 400 engines and vehicles.

EPA funded 26 national competitive grants in FY 2015 to reduce emissions from 479 diesel engines or pieces of equipment for a total of $15.4 million.

FY 2015 DERA Funding by Sector



FY 2016 DERA Funding by Sector



EPA funded 35 national competitive grants in FY 2016 for a total of $32.9 million. These grants retrofitted or replaced 966 engines or vehicles.

R5 State DERA Funding 2020

State Agency	EPA Funding
Illinois EPA	$369,441
Indiana DEM	$521,201
Michigan EGLE	$359,238
Minnesota PCA	$515,073
Ohio EPA	$547,440
Wisconsin DNR	$517,062
Total	**$2,829,455**

R5 National DERA Funding 2020

DERA Competitive (9)			
National School Transportation	$632,500	R5 States	10/1/2020
Leonardo Academy	$314,365	IL, MN	10/1/2020
Leonardo Academy	$80,678	WI	10/1/2020
Coalition for Sustainable Initiatives	$631,360	MI, WI	10/1/2020
Southwest Detroit Environmental Vision	$1,282,426	MI, OH	10/1/2020
American Lung Association	$1,945,545	IL, IN, OH	10/1/2020
American Lung Association	$1,904,337	IL	10/1/2020
Regional Transit Authority	$594,765	IL	10/1/2020
Chicago Dept of Transportation	$591,360	IL	10/1/2020
Total	**$7,976,336**		

DERA – Moving Forward

- FY2020 School Bus Rebates ~ October 2020
- FY2021 DERA National RFA ~ January 2021
  - Program will continue to prioritize projects related to goods movement and projects in areas of poor air quality
- FY2021 DERA Tribal RFA ~ Spring 2021
- FY2021 DERA State Program ~ March 2021
- FY2021 School Bus Rebates ~ October 2021

National Clean Diesel Campaign

http://www.epa.gov/cleandiesel

EPA Ports Initiative

http://www.epa.gov/ports-initiative

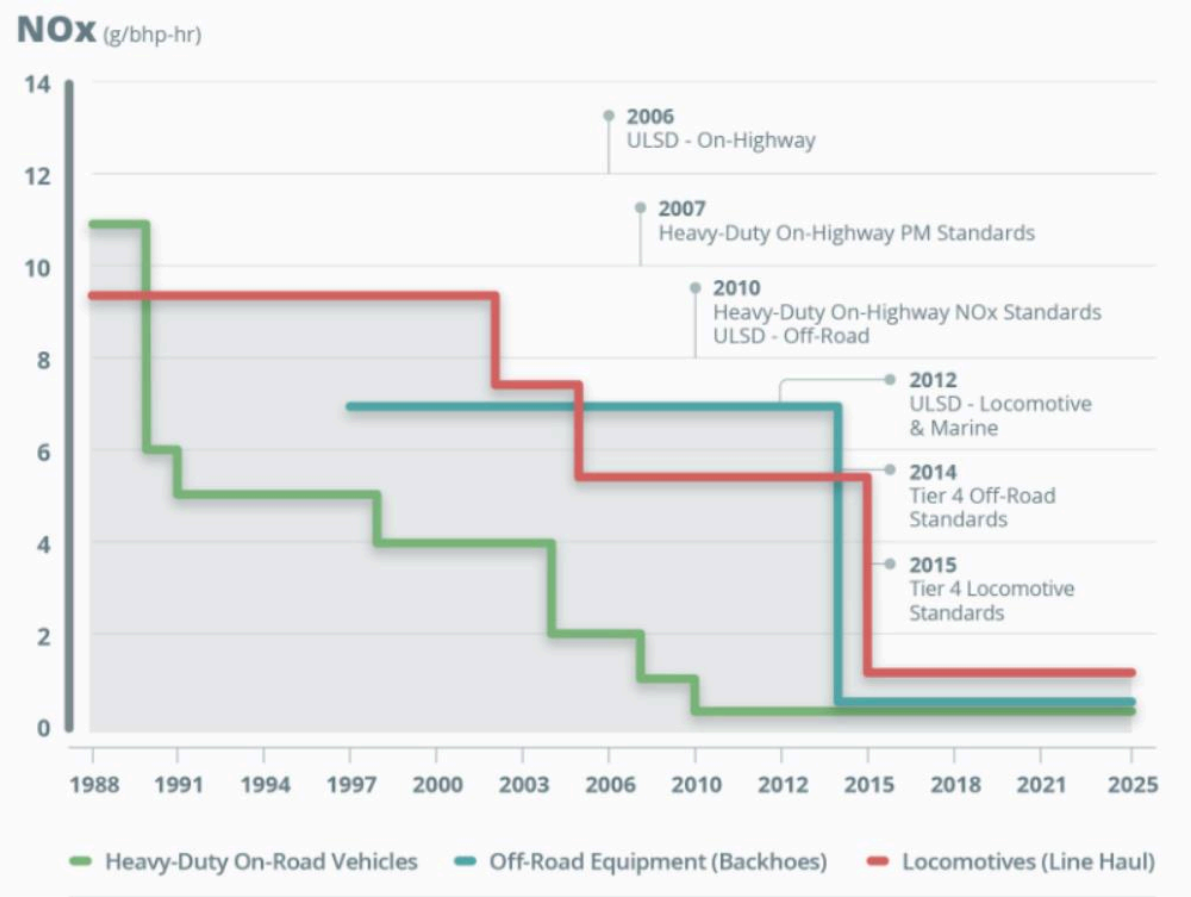
Midwest Clean Diesel Initiative

http://www.epa.gov/midwestcleandiesel

EPA's SmartWay Transport Partnership

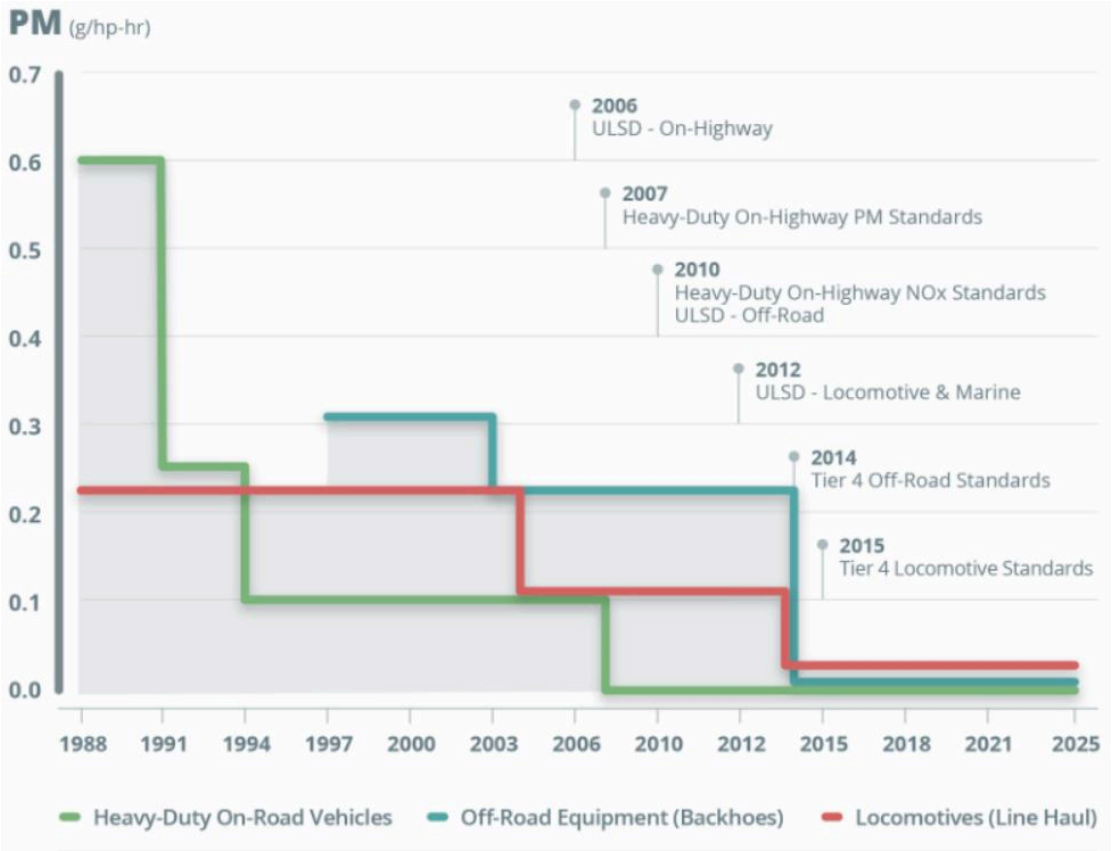
http://www.epa.gov/smartway

Progress to Near-Zero NOx Emissions



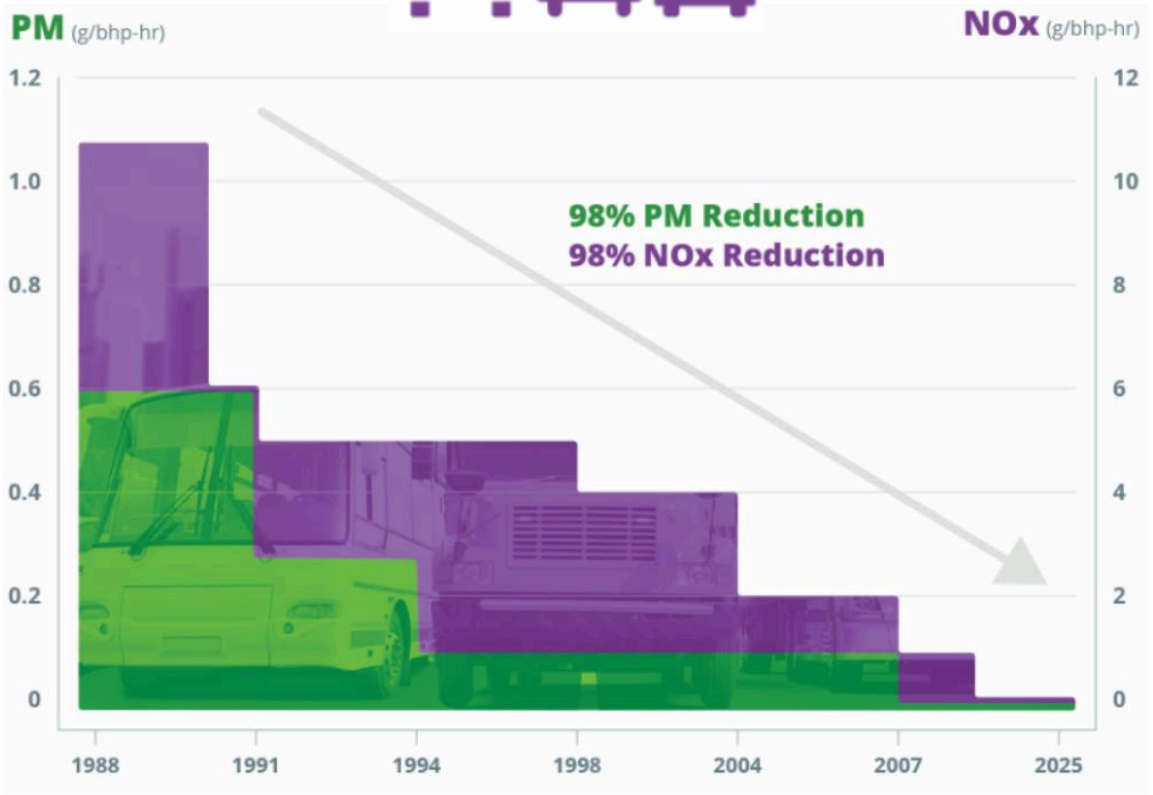
Source: U.S. EPA Office of Transportation and Air Quality (OTAQ)

Progress to Near-Zero PM Emissions



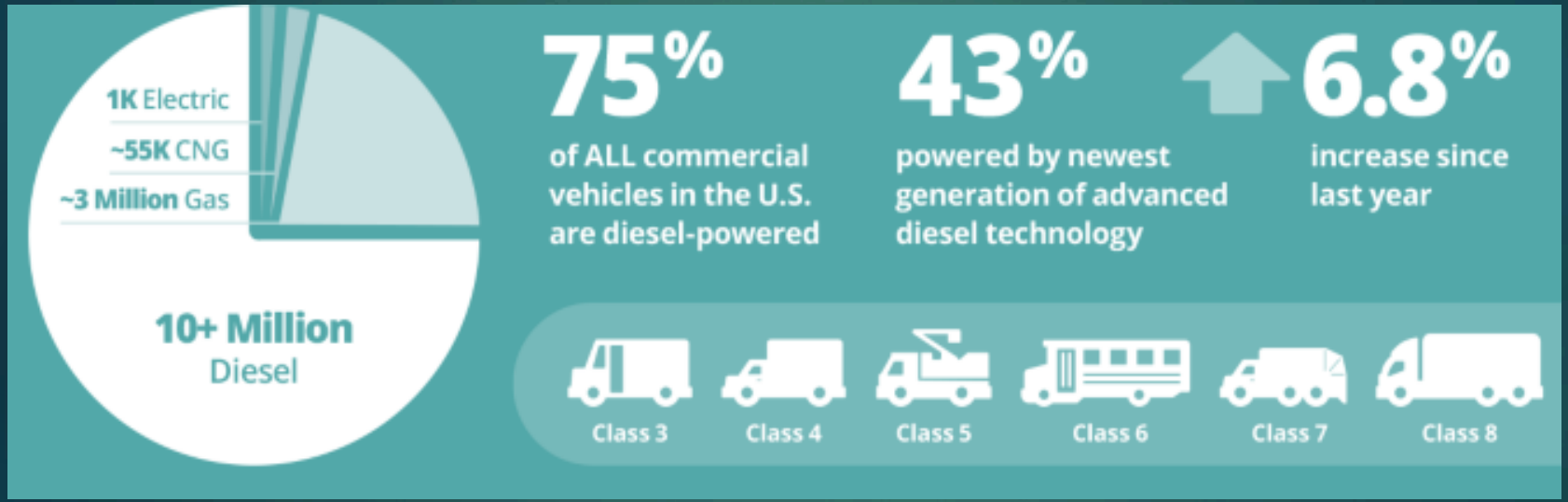
Source: U.S. EPA Office of Transportation and Air Quality (OTAQ)

Heavy Duty On-Highway Clean Diesel Progress



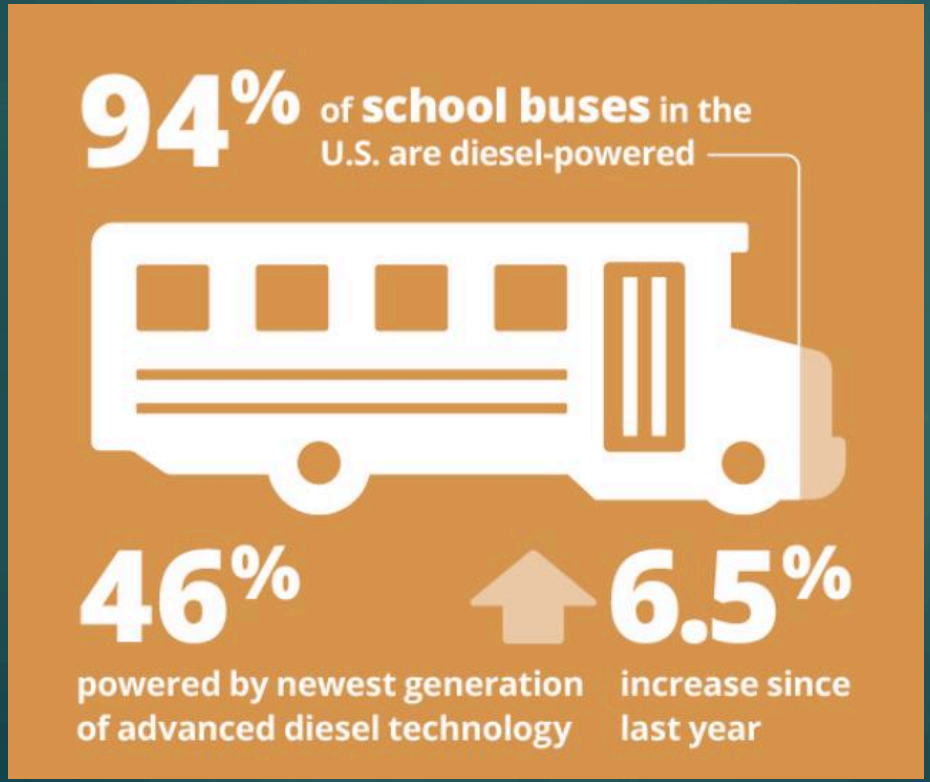
Source: U.S. EPA Office of Transportation and Air Quality (OTAQ)

New Diesel Technology in the U.S.



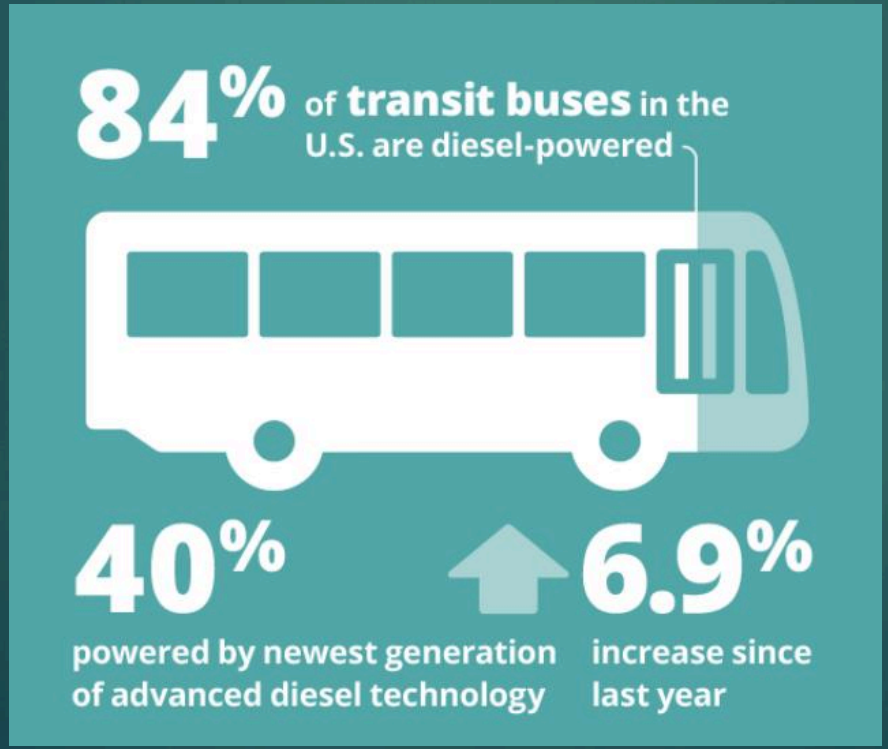
Source: Diesel Technology Forum using July 2019 U.S. Vehicles in Operations Data (Class 3-8 vehicles, Model Year 2010 and newer) provided by HIS Markit

Expanding Investments in New Technology in School Buses



Source: Diesel Technology Forum using July 2019 U.S. Vehicles in Operations Data (Class 3-8 vehicles, Model Year 2010 and newer) provided by HIS Markit

Expanding Investments in New Technology in Transit Buses



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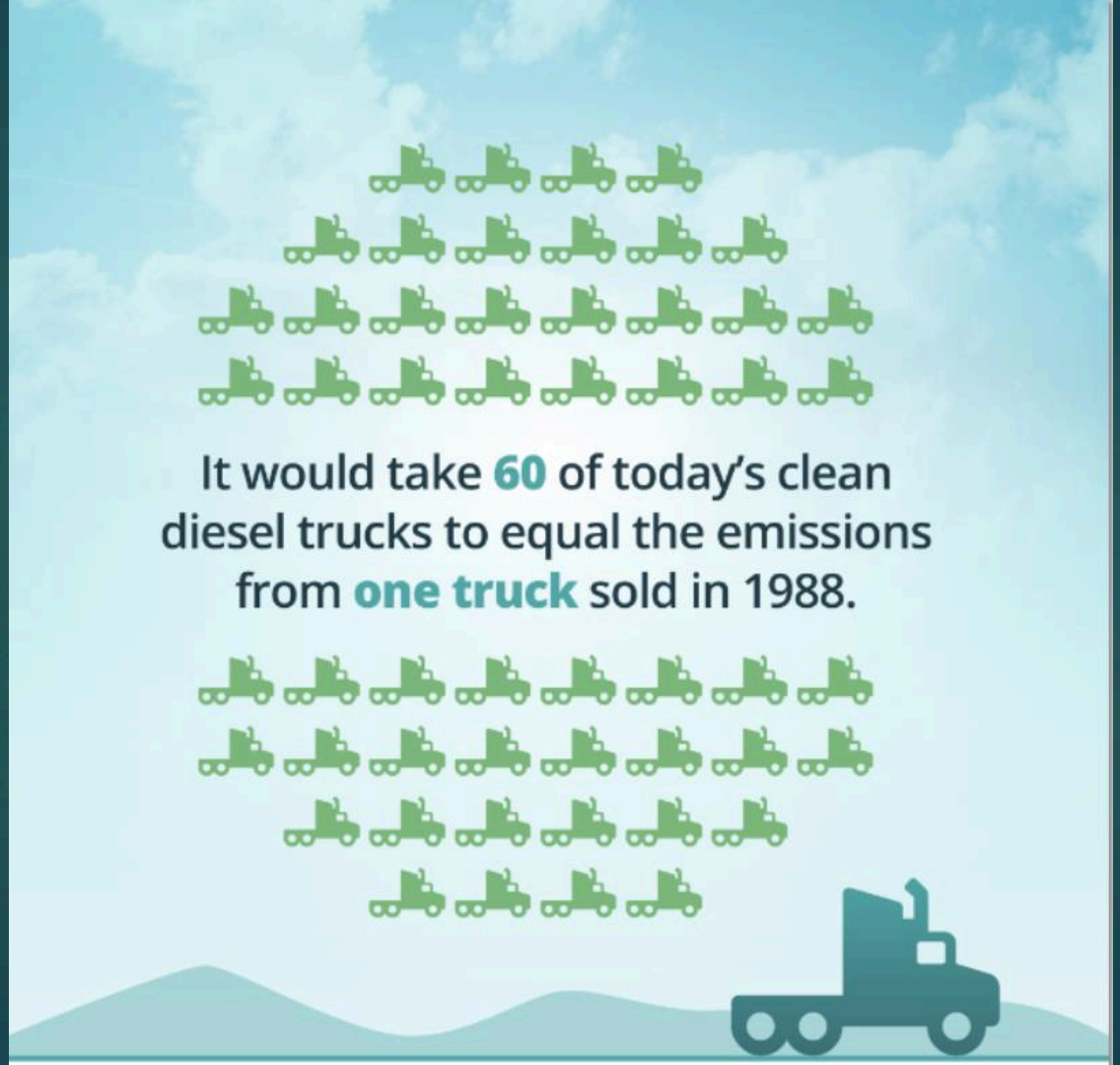
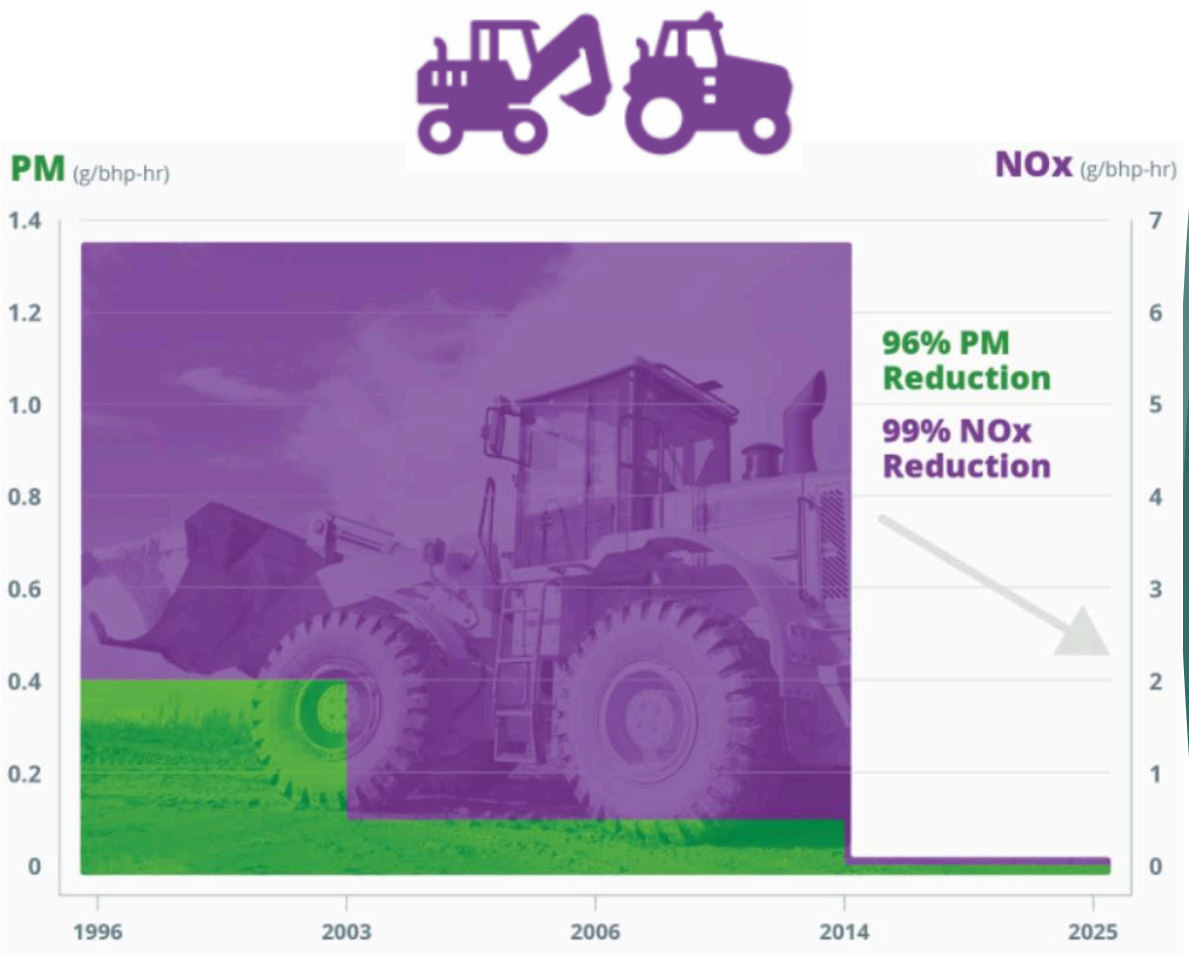


Source: Diesel Technology Forum graphic using U.S. EPA data

Large Off-Road Equipment Clean Diesel Progress



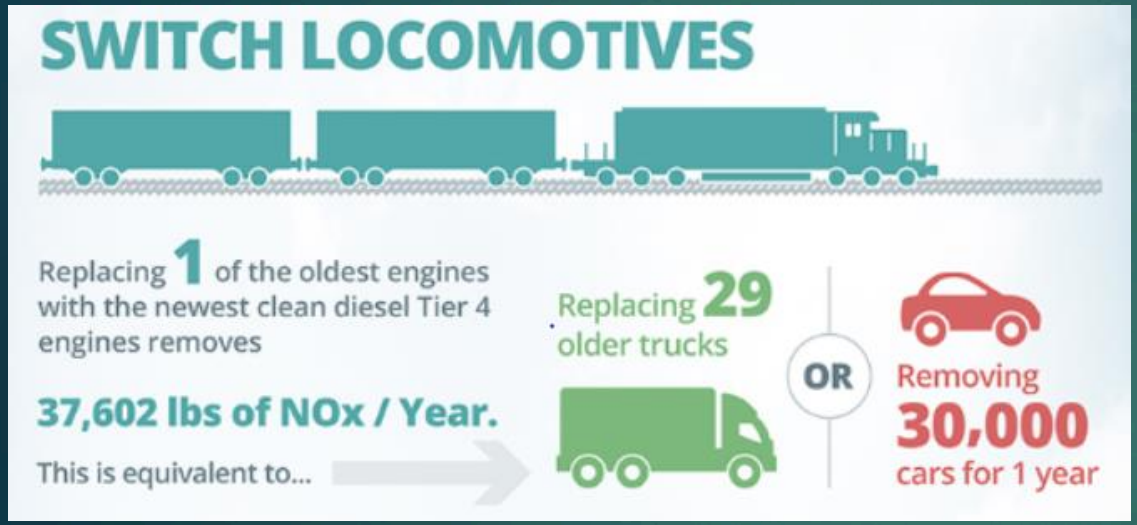
Source: U.S. EPA Office of Transportation and Air Quality (OTAQ)

Source: Diesel Technology Forum graphic using U.S. EPA data

Locomotive Clean Diesel Progress

Source: U.S. EPA Office of Transportation and Air Quality (OTAQ)

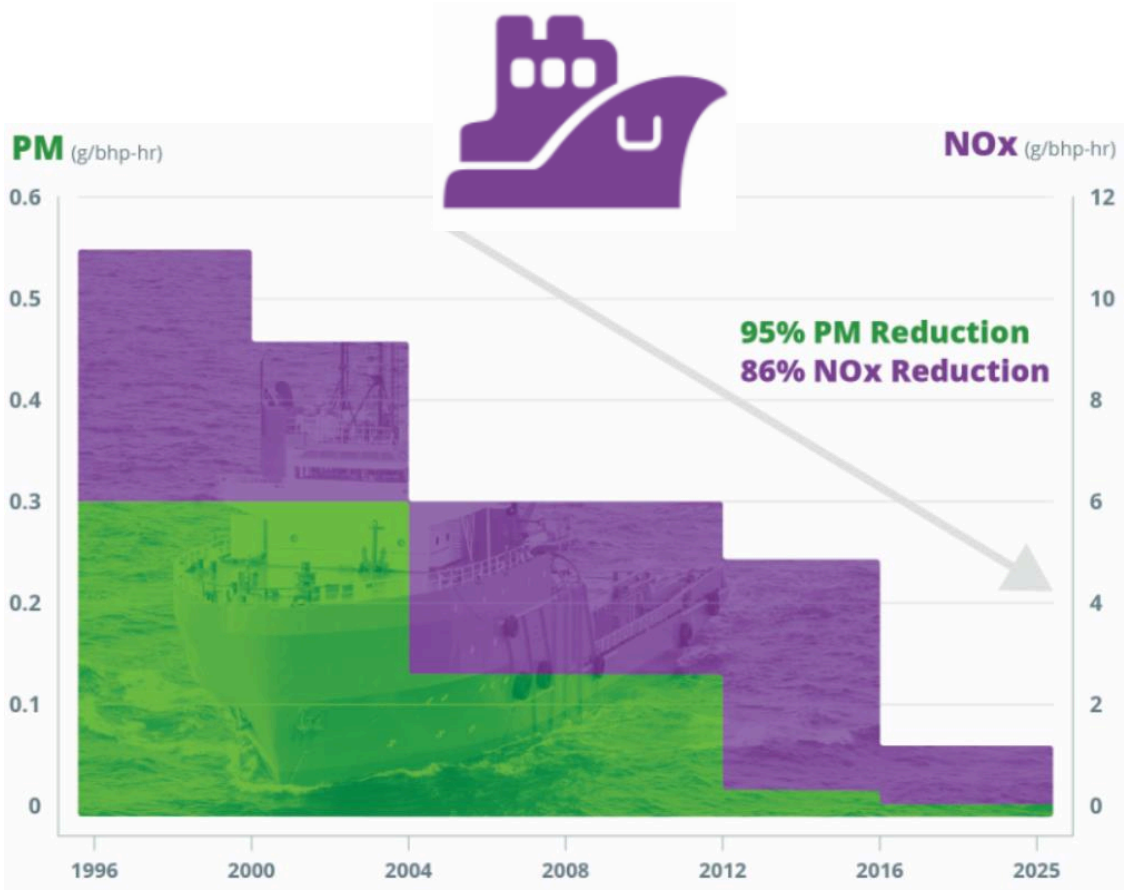
Why Engine Replacement Makes Sense



Source: Diesel Technology Forum using EPA information

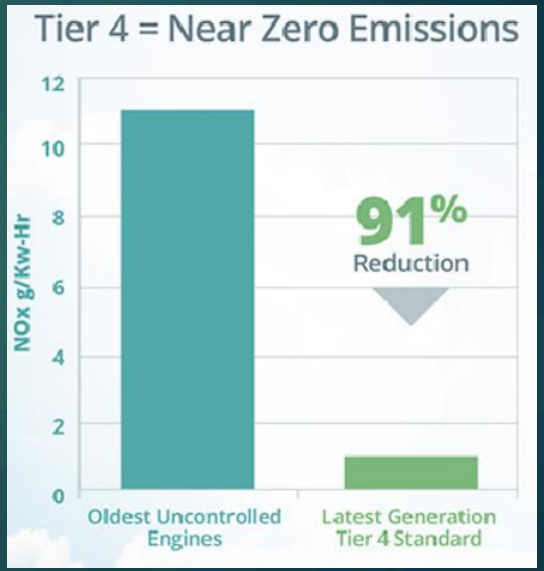
- By 2020, EPA estimates that only 5% of switch engines in service will be powered by the latest clean diesel engine

Workboat Clean Diesel Progress



Source: U.S. EPA Office of Transportation and Air Quality (OTAQ)

Why Engine Replacement Makes Sense



- By 2020, EPA estimates that only 3% of tug boats in service will be powered by the latest clean technology

Sample Potential Emissions Reductions (Onroad Projects)*

Vehicle Type	Baseline NOx (tons/yr)	Potential NOx Reductions (tons/yr)	Percent NOx Reduction (%)	Baseline PM2.5 (tons/yr)	Potential PM2.5 Reductions (tons/yr)	Percent PM2.5 Reduction (%)
Long Haul – Combination	12.873	9.178	71.3	0.824	0.797	96.8
Transit Bus	4.864	4.373	89.9	0.171	0.163	95.2
Short Haul – Combination	3.375	3.034	89.9	0.180	0.176	97.7
Refuse Hauler	2.417	2.143	88.7	0.184	0.179	97.0
Long Haul – Single Unit	1.336	1.183	88.6	0.137	0.133	97.6
Short Haul – Single Unit	1.033	0.926	89.6	0.079	0.078	98.0
School Bus	0.967	0.866	89.6	0.079	0.078	98.0

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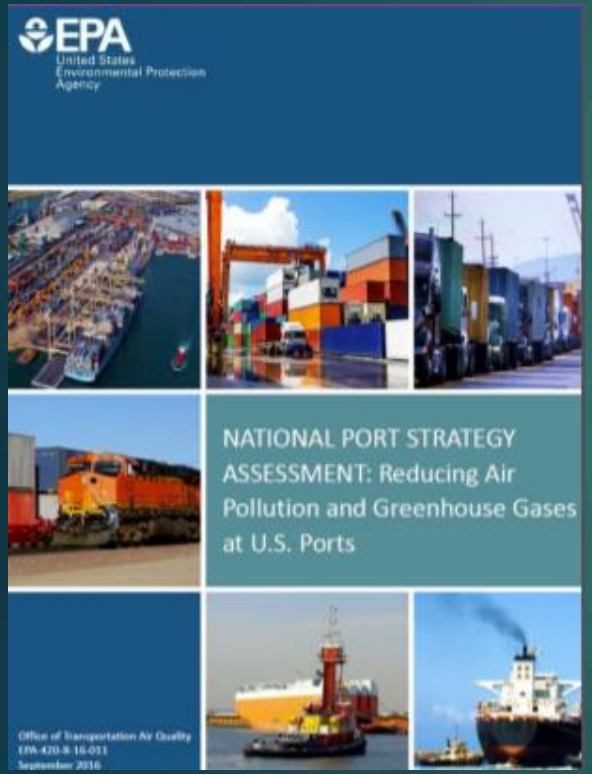
*estimated emission reduction calculations are for comparisons only based on default activity factors by vehicle type

Sample Potential Emissions Reductions (Nonroad Projects)*

Vehicle Type	Baseline Nox (tons/yr)	Potential NOx Reductions (tons/yr)	Percent NOx Reduction (%)	Potential PM2.5 Reduction (tons/yr)	Reduced PM2.5 (tons/yr)	Percent PM2.5 Reduced (%)
Tugboat	54.188	30.29	55.9	1.330	1.000	75.3
Switcher Locomotive	19.355	14.342	74.1	0.478	0.389	81.4
Small Tugboat	15.803	8.597	54.4	0.301	0.204	67.8
Terminal Tractor	5.537	5.144	92.9	0.385	0.372	96.6
Forklift	3.797	3.568	94.0	0.521	0.514	98.5
Airport Support Equipment	3.200	2.970	92.8	0.169	0.162	95.5

*estimated emission reduction calculations are for comparisons only based on default activity factors by vehicle type

Benefits of Large Engine Repowers



- Tier 3, Tier 4 engine replacements yield substantial benefits
  - Workboat repower is similar to 96 dray truck replacements (30 tons NOx per year)
  - Switch locomotive repower is similar to 36 dray truck replacements (9 tons NOx per year)

*estimated emission reduction calculations are for comparisons only based on default activity factors by vehicle type

Questions?

Put your questions in the chatbox and we'll get to as many as we can!

Upcoming Webinars in Sustainable Transportation

Electric Vehicles
Thursday, September 24 at 1 p.m. CDT

Electric Vehicle Charging Infrastructure
Thursday, October 1 at 1 p.m. CDT

Sustainable Truck & Bus Solutions
Thursday, October 8 at 1 p.m. CDT

Operating & Maintaining Alternative Fuel Vehicles
Thursday, October 15 at 1 p.m. CDT

Join us June 10, 2021 for the Transportation & Innovation Expo!