

EPA's Clean Diesel Programs Overview

Partners For Clean Air
April 22, 2022

Midwest Clean Diesel Initiative



The background is a deep blue gradient. On the left, there's a faint grid of small squares. On the right, there are several concentric, curved lines that create a sense of depth and movement, resembling a tunnel or a stylized globe.

But first...

DIESEL EMISSIONS: A REFRESHER

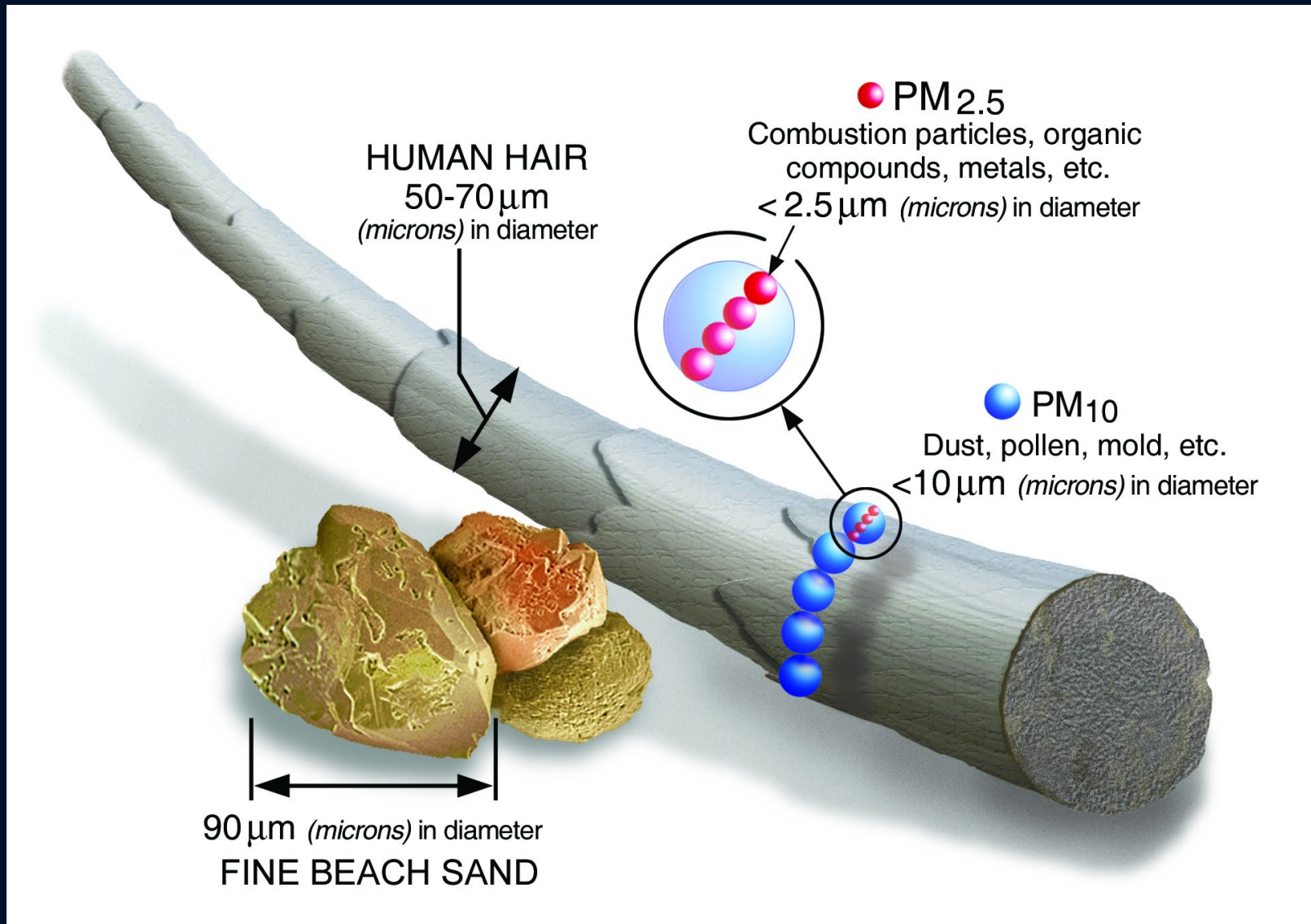
Health Effects of Diesel Emissions

- Two main categories of diesel exhaust:
 - Gases: non-toxic and toxic components
 - Volatile Organic Compounds (VOC)
 - Oxides of Nitrogen (NO_x)
- } Pollutants react with oxygen and make ozone
- Particles: fine/ultrafine and toxic chemicals absorbed onto them

Particulate Matter (PM)

- Small particles of dust, dirt, soot, smoke, liquid droplets, and organic chemicals
- EPA regulates PM in two categories:
 - PM₁₀ (10 microns or less)
 - PM_{2.5} (2.5 microns or less)
 - PM_{2.5} is very small, 1/30th of the width of a human hair
 - Small size allows PM_{2.5} to get through the human body's airway defense mechanisms and enter deep into the lungs

2.5 Microns



Regulatory Approaches

- Criteria Pollutant Regulations (PM and Ozone)
- Fuel Regulations
- Engine Standards

Collective Impact

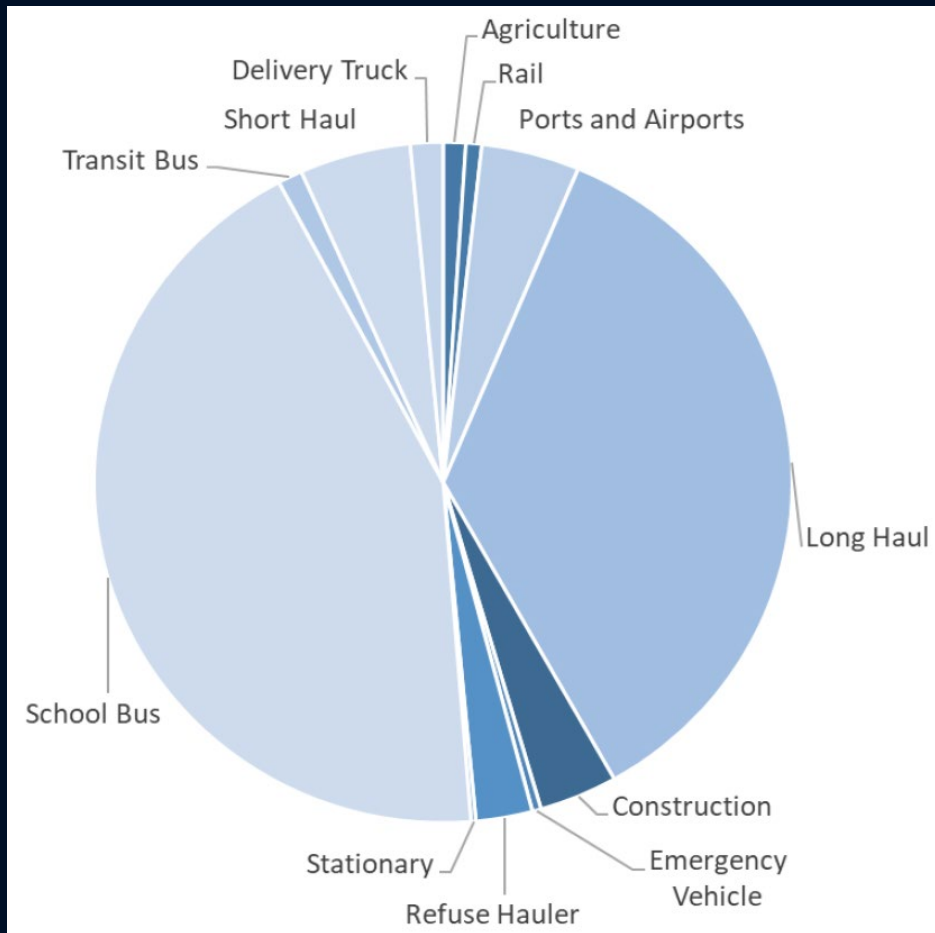
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DERA So Far

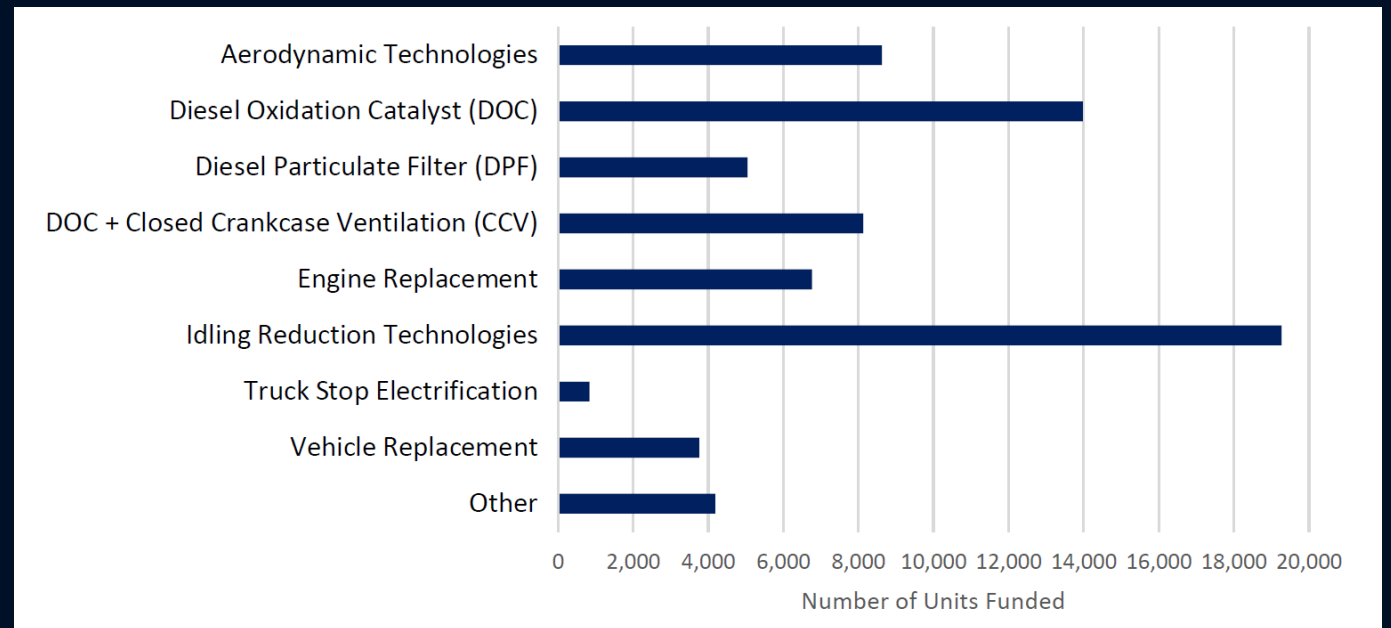
DERA Program Benefits and Accomplishments for FYs 2008-2016

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

DERA Funded Sectors 2008-2016

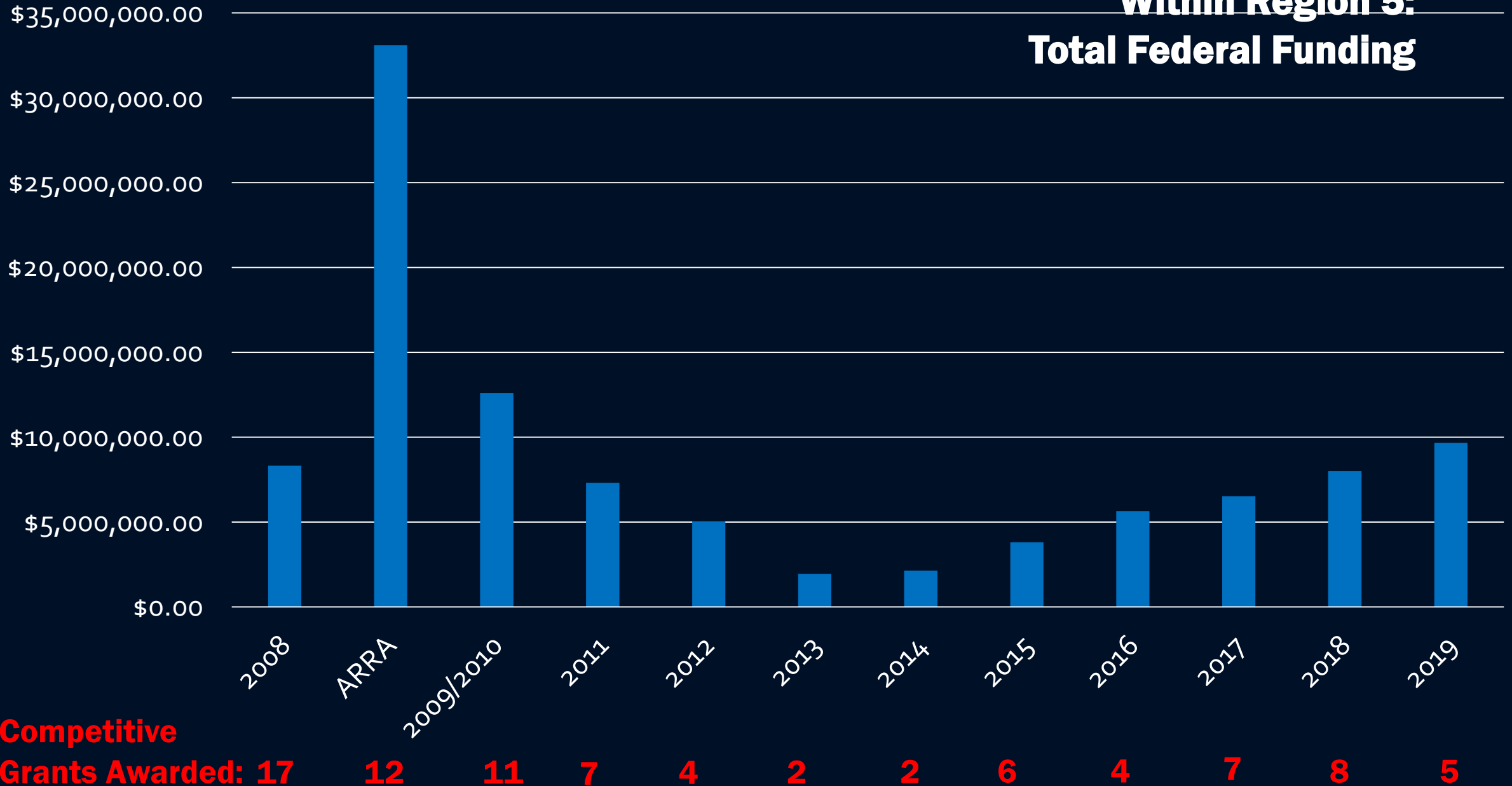


DERA Funding by Technology Type 2008-2016



DERA Funding Increasing Again

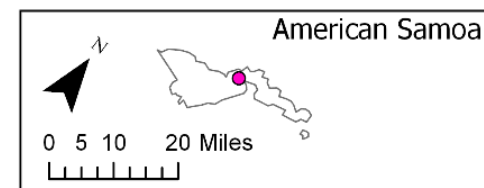
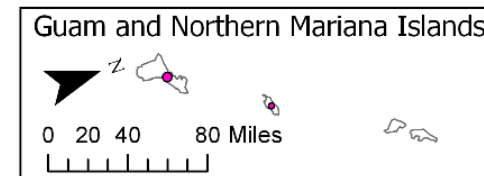
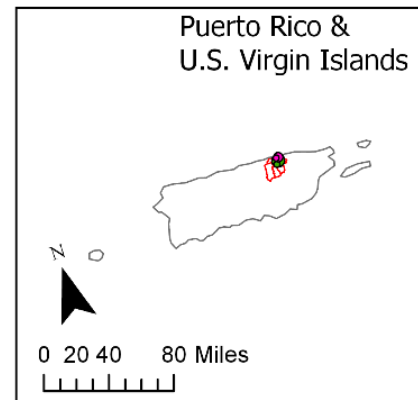
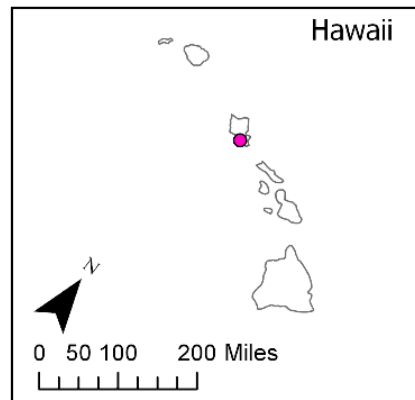
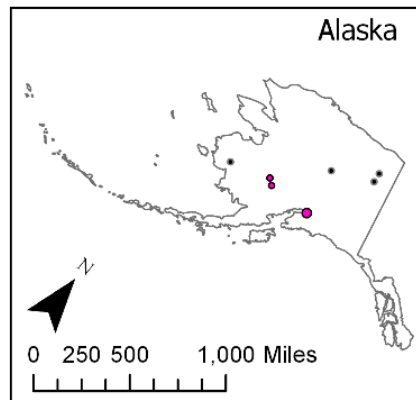
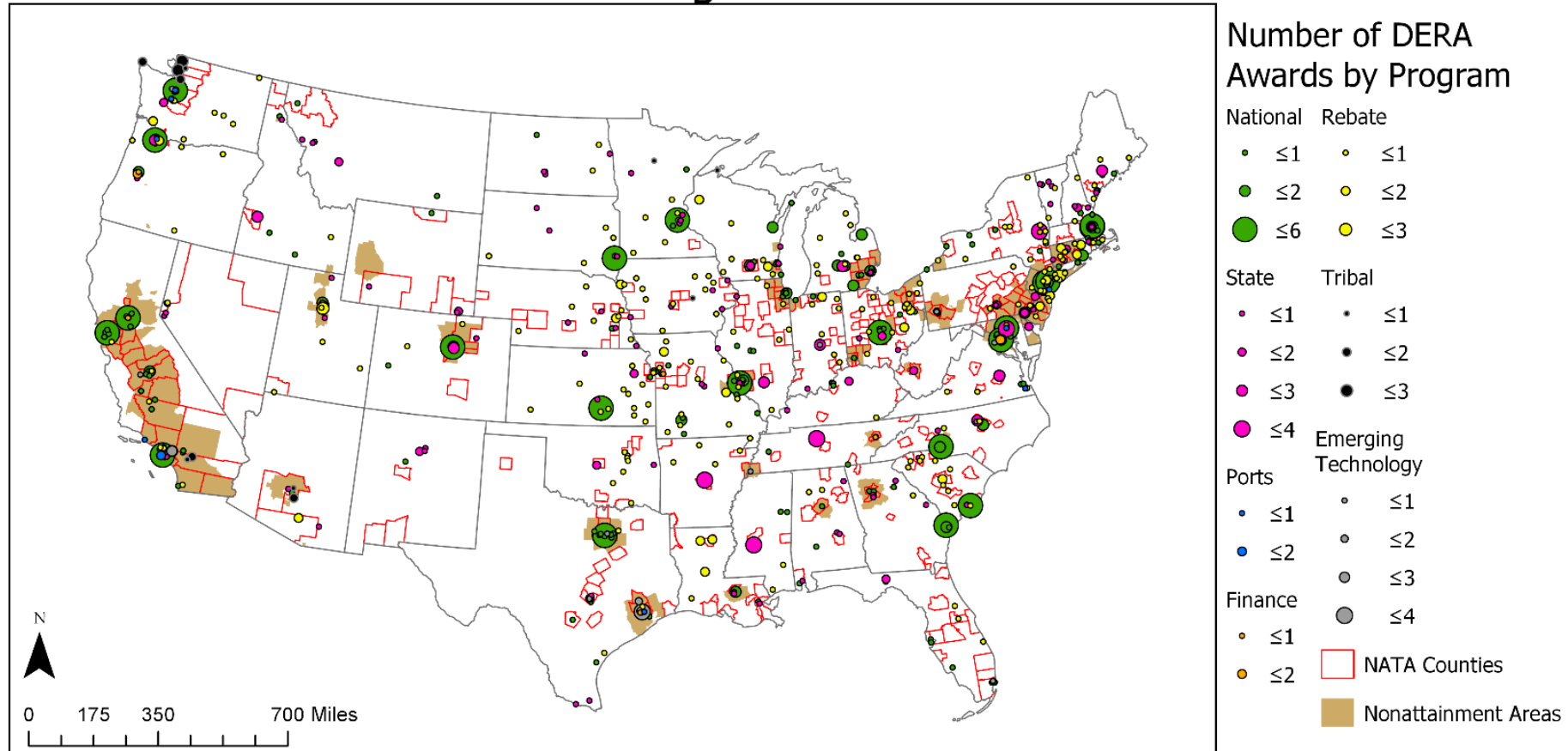
**Within Region 5:
Total Federal Funding**



DERA Funding Still Increasing

Funding Year	R5 Competitive \$	Awarded Grants
2019	\$5,135,800	5
2020	\$7,249,896	9
2021	\$7,669,083	8

DERA Program FY 2008-2016



State Grants

- EPA allocates DERA funds to eligible U.S. states and territories for the establishment of diesel emissions reduction programs.
- Timeline: Spring



<https://www.epa.gov/dera/state>

School Bus Rebates

- EPA offers rebates to eligible entities reduce harmful emissions from older, dirtier diesel vehicles.
- Timeline: May/Spring
- Note: now BIL not DERA*



<https://www.epa.gov/cleanschoolbus>

National Grants

- Program solicits applications for projects that achieve significant reductions in diesel emissions and exposure, particularly from fleets operating in designated poor air quality areas.
- Timeline: End of Summer



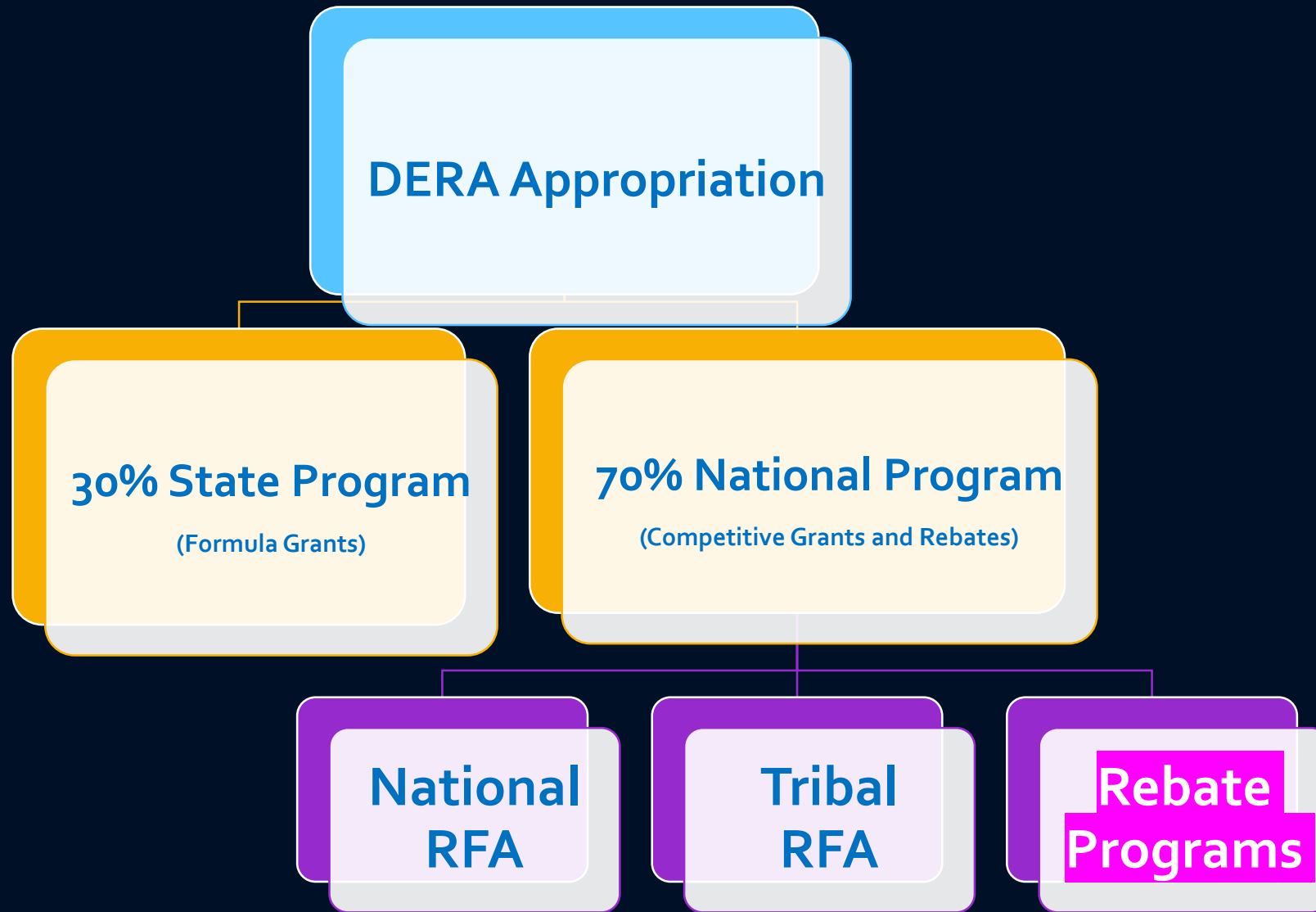
<https://www.epa.gov/dera/national>

Tribal and Insular Area

- Program solicits applications from eligible entities that achieve significant reductions in diesel emissions and exposure.
- Timeline: Spring



<https://www.epa.gov/dera/tribal>



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 principal purpose, the promotion of transportation or air quality
- ▶ For-profits and individuals can benefit through partnerships with eligible entities

Eligible Vehicles, Engines & Equipment

- May include, but are not limited to:
 - Buses;
 - Class 5 – Class 8 heavy-duty highway vehicles;
 - Marine engines;
 - 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? (note: 2021 RFA funding percentages listed)

- 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%

State Funding Resources and CC Partners

WI: <https://doa.wi.gov/Pages/vwsettlementwisconsin.aspx>

-Clean Cities partner: <https://wicleancities.org/>

IL: <https://www2.illinois.gov/epa/topics/air-quality/driving-a-cleaner-illinois/Pages/default.aspx>

-Primarily Chicago/E. St. Louis areas

-Clean Cities partner: <https://chicagocleancities.org/>

IN: <https://www.in.gov/idem/airquality/dieselwise/>

-VW and DERA offerings, mostly state-wide (with priorities noted)

-Clean Cities partner: <https://drivecleanindiana.org/>

Region 5-Midwest Clean Diesel Initiative School Bus Workgroup (BIL/Infrastructure funding-based)

- First Wednesday of the month, 11am Central
- Contact Tony (maietta.anthony@epa.gov) to participate

EPA's Clean Diesel Programs



National Clean Diesel Campaign

<http://www.epa.gov/dera>

Midwest Clean Diesel Initiative

<http://www.epa.gov/midwestcleandiesel>

EPA Ports Initiative

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

EPA's SmartWay Transport Partnership

<http://www.epa.gov/smartway>

For More Information Contact:

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