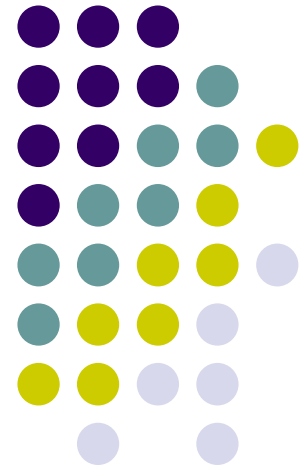


Clean Diesel Funding Assistance Program

Faye Swift
USEPA OTAQ
DERA Grant and Policy Team Leader



National Clean Diesel Campaign

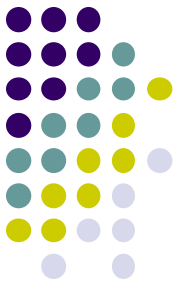


Diesel Emissions Reduction Act



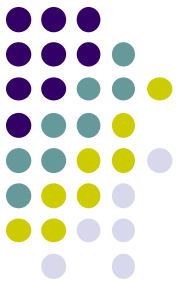
- DERA originally authorized under the Energy Policy Act of 2005
- Amended by the Diesel Emissions Reduction Act of 2010 (Public Law 111-364)
- Enables EPA to offer funding assistance for projects that achieve significant reductions in diesel emissions and exposure, particularly from fleets operating at or servicing goods movement facilities located in areas designated as having poor air quality. Further, priority for funding may will be given to projects which result in outcomes that benefit affected communities, those that engage affected communities with respect to the design and performance of the project, and those which can demonstrate the ability to promote and continue efforts to reduce emissions after the project has ended.

Basic Information



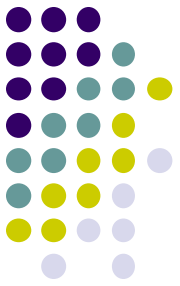
- National Funding Assistance Program
 - Fiscal Year 2017 funding - **\$34 million**
 - 2018 RFP will be available at www.epa.gov/cleandiesel/clean-diesel-national-grants#rfp
 - Tentative Open Period: April through May
- Proposals must be submitted electronically via www.grants.gov
 - All applications must now be submitted through using the “Workspace” feature
- Applicants may submit up to THREE proposals for separate projects

Eligible Entities



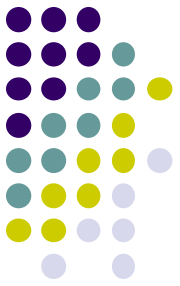
- Regional, state, local, tribal or port agency with jurisdiction over transportation or air quality; and
- Nonprofit organization or institution which
 - Represents or provides pollution reduction or educational services to persons or organizations that operate diesel fleets; or
 - Has, as its principle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

Eligible Projects & Funding Levels



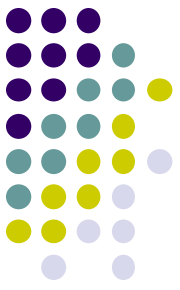
- Verified Exhaust Control Technologies
 - Up to 100% of the cost
 - Diesel Oxidation Catalysts, Diesel Particulate Filters, etc.
- Verified/Certified Engine Upgrades and Remanufacture Systems
 - Up to 40% of the cost
- Verified Cleaner Fuels
 - cost differential between conventional fuel and cleaner fuel
 - EPA will NOT fund stand alone cleaner fuel use

Eligible Projects & Funding Levels



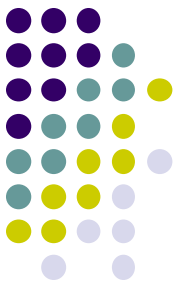
- Verified Idle Reduction Technologies
 - Locomotive idle reduction up to 40% of the cost
 - Marine shore power connection systems up to 25% of the cost
 - Electrified parking spaces (truck stop electrification) up to 30% of the cost
 - Idle reduction technologies on school buses or long-haul Class 8 trucks up to 25% of the cost
- Verified Aerodynamic Technologies & Low Rolling Resistance Tires
 - EPA will NOT fund stand-alone Aero and/or Tires projects
 - If Aero and/or Tires are combined on the same vehicle with a verified exhaust control technology funded under this RFP, EPA will fund up to 100% of the cost of all technologies
 - Example: Low Rolling Resistance Tires AND Diesel Particulate Filter on a truck

Eligible Projects & Funding Levels



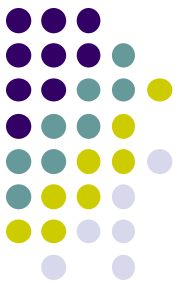
- Certified Engine Replacement
 - Locomotive, Marine, and Nonroad Vehicles and Equipment:
 - EPA will fund up to 40% of the cost (labor and equipment) of a 2017 model year or newer engine certified to EPA emission standards. (Previous engine model year engines may be used if the engine is certified to the same emission standards applicable to the engine in 2017.)
 - EPA will fund up to 60% of the cost (labor and equipment) of replacing a diesel engine with a zero emission power source.
 - Highway Diesel Vehicles:
 - EPA will fund up to 40% of the cost (labor and equipment) of a 2017 model year or newer engine certified to EPA emission standards.
 - EPA will fund up to 50% of the cost (labor and equipment) of a 2017 model year or newer engine that is certified to CARB's Optional Low-NOx Standard.
 - EPA will fund up to 60% of the cost (labor and equipment) of replacing a diesel engine with a zero emission power source.
 - Hydrogen fuel cells are only eligible for engine replacements for eligible urban transit buses, shuttle buses and drayage trucks.

Eligible Projects & Funding Levels



- Vehicle and Equipment Replacement
 - Locomotive and Nonroad Vehicles and Equipment
 - EPA will fund up to 25% of the cost of a replacement vehicle or piece of equipment powered by a 2017 model year or newer engine certified to EPA emission standards.
 - EPA will fund up to 45% of the cost of a new, zero emission nonroad vehicle or piece of equipment.
 - Highway Vehicles (other than drayage)
 - EPA will fund up to 25% of the cost of a replacement vehicle powered by a 2017 model year or newer engine certified to EPA emission standards.
 - EPA will fund up to 35% of the cost of a replacement vehicle powered by a 2017 model year or newer engine certified to meet CARB's Optional Low-NOx Standard.
 - EPA will fund up to 45% of the cost of an all-electric replacement vehicle.
 - Drayage Trucks
 - EPA will fund up to 50% of the cost of a replacement drayage truck powered by a 2012 model year or newer certified engine.
 - Hydrogen fuel cell vehicles and equipment are only eligible as replacements for eligible transit buses, shuttle buses, drayage trucks, terminal tractors/yard hostlers, stationary generators and forklifts.

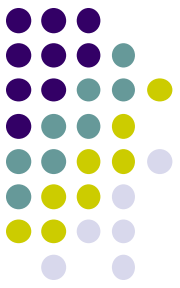
Eligible Projects & Funding Levels



● Certified Clean Alternative Fuel Conversion

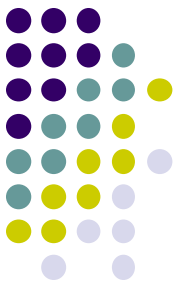
- Funding can cover up to 40% of the cost (labor and equipment) of an eligible certified or compliant clean alternative fuel conversion.
- Eligible conversions are those certified by EPA and/or CARB, and those systems deemed compliant by EPA for Intermediate-Age engines.
- EPA's lists of "Certified Conversion Systems for New Vehicles and Engines" and compliant "Conversion Systems for Intermediate-Age Vehicles and Engines" are available at www.epa.gov/vehicle-and-engine-certification/lists-epa-compliant-alternative-fuel-conversion-systems; CARB's list of "Approved Alternate Fuel Retrofit Systems" are available at: www.arb.ca.gov/msprog/aftermkt/altfuel/altfuel.htm.
- Eligible conversion systems for EMY1995-2006 must achieve at least a 30% NOx reduction and a 10% PM reduction from the applicable certified emission standards of the original engine.
- Eligible conversion systems for EMY 2007-2009 must achieve at least a 20% NOx reduction with no increase in PM from the applicable certified emission standards of the original engine.

Funding Restrictions



- Nonroad: Horsepower increases of more than 25 percent will require specific approval by EPA prior to purchase.
- Highway: The replacement vehicle must not be in a larger weight class than the existing vehicle (Class 5, 6, 7, or 8). The engine's primary intended service class must match the replacement vehicle's weight class. Exceptions may be granted for vocational purposes.
- The engine and/or vehicle or equipment being replaced must be scrapped or rendered permanently disabled within 90 days of being replaced.
- Engine and/or vehicle replacements that would have occurred through normal attrition within 3 years of the project start date are considered to be the result of normal fleet turnover and are not eligible for funding under this program.
- Nonroad equipment that operate less than 500 hours/year are NOT eligible
 - Engine hours may be combined to reach the 500-hour threshold where two engines will be scrapped and replaced with a single engine.
- Locomotives and Marine engines that operate less than 1000 hours/year are NOT eligible.
 - Engine hours may be combined to reach the 1000-hour threshold where two or more engines will be scrapped and replaced with a single engine.
- Minimum usage requirements for marine and locomotive shore connection systems

Funding Restrictions



- **Medium and Heavy-Duty Trucks, Transit Buses, and School Buses**

Current Engine Model Year (EMY)	DOC +/- CCV	DPF	SCR	Verified Idle Reduction, Tires, or Aerodynamics	Vehicle or Engine Replacement: EMY 2017+ (2012+ for Drayage)	Vehicle or Engine Replacement: Electric	Clean Alternative Fuel Conversion
older - 1994	No	No	No	No	No	No	No
1995 - 2006	Yes	Yes	Yes	Yes	Yes	Yes	Yes
2007 - 2009	No	No	Yes	Yes*	No	Yes	Yes
2010 - newer	No	No	No	No	No	No	No

* Auxiliary Power Units and generators are not eligible on vehicles with EMY 2007 or newer.

Nonroad Engine Funding Restrictions



Current Engine Horsepower	Current Engine Model Year (EMY) and Tier	Vehicle/Equipment Replacement: EMY 2017+				Verified Exhaust Control
		Tier 0 - 2	Tier 3 - 4i	Tier 4	All-Electric	
0-50	2005 and Newer; Unregulated – Tier 2	No	No	Yes	Yes	Yes
51-300	1995 and Newer; Tier 0 – Tier 2	No	Yes*	Yes	Yes	Yes
51-300	1995 and Newer; Tier 3	No	No	Yes	Yes	Yes
301+	1985 and Newer; Tier 0 – Tier 2	No	Yes*	Yes	Yes	Yes
301+	1985 and Newer; Tier 3	No	No	Yes	Yes	Yes
Current Engine Horsepower	Current Engine Model Year (EMY) and Tier*	Engine Replacement: EMY 2017+*			Verified Engine Upgrade	
		Tier 0 - 3	Tier 4	All-Electric		
0-50	2005 and Newer; Unregulated – Tier 2	No	Yes	Yes	Yes	
51-300	1995 and Newer; Tier 0 – Tier 3	No	Yes	Yes	Yes	
301-750	1985 and Newer; Tier 0 – Tier 3	No	Yes	Yes	Yes	
751+	1985 and Newer; Tier 0 – Tier 2	No	Yes	Yes	Yes	

*Tier 3 and Tier 4 interim (4i) allowed for vehicle/equipment replacement only when Tier 4 final is not yet available from OEM for 2017 model year equipment under the Transition Program for Equipment Manufacturers (TPEM).

**Previous engine model year engines may be used for engine replacement if the engine is certified to the same emission standards applicable to EMY 2017.

Funding Restrictions



- Marine Engines

Current Engine Tier	Engine Replacement: EMY 2017+ *			Certified Remanufacture System	Verified Engine Upgrade
	Tier 1-2	Tier 3-4	All-Electric		
Unregulated – Tier 2	No	Yes	Yes	Yes	Yes
Tier 3 - 4	No	No	No	No	No

*Previous engine model year engines may be used if the engine is certified to the same emission standards applicable to EMY 2017.

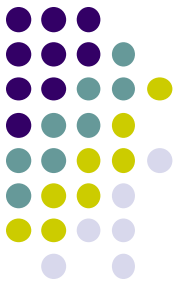
- Locomotives

Current Locomotive Tier	Locomotive Replacement or Engine Replacement: EMY 2017+* or Electric			Verified Exhaust Control	Idle-Reduction Technology	Certified Remanufacture System
	Tier 0+ - 3	Tier 4	All-Electric			
Unregulated - Tier 2	No	Yes	Yes	Yes	Yes**	Yes
Tier 2+ switcher	No	Yes	Yes	Yes	Yes**	Yes
Tier 2+ line haul	No	No	No	Yes	Yes**	Yes
Tier 3 – Tier 4	No	No	No	No	No	No

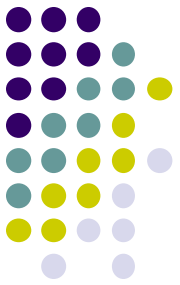
*Previous engine model year engines may be used if the engine is certified to the same emission standards applicable to EMY 2017.

**Automatic Engine Start-Stop technologies are only eligible to be installed on locomotives currently certified to Tier 0 or unregulated.

Funding Restrictions



- **Restriction for Mandated Measures:** No funds awarded under this RFP shall be used to fund the costs of emission reductions that are mandated under federal law.
 - EPA’s locomotive and marine rule, “Control of Emissions of Air Pollution from Locomotives and Marine Compression-Ignition Engines Less than 30 liters per Cylinder”
 - EPA’s RICE rule, “National Emission Standards for Hazardous Air Pollutants (NESHAP) for Stationary Reciprocating Internal Combustion Engines (40 CFR Part 63 Subpart ZZZZ)”



Proposal Submission

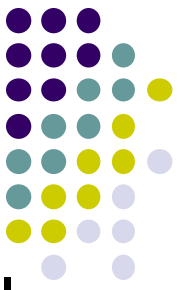
- Submit proposals electronically via www.grants.gov
- If not currently registered with Grants.gov, designate an Authorized Organization Representative (AOR) and begin the registration process as soon as possible.
- The registration process requires that your organization have a DUNS number and a current registration with the System for Award Management (SAM) and the process of obtaining both could take several weeks.
- Please note that Grants.gov now requires users to use their “Workspace” feature when applying for opportunities.
- Please create accounts and necessary registrations early!

Proposal Submission



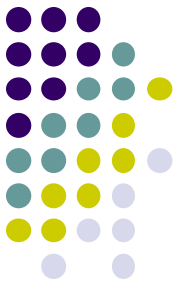
- Applicants must indicate in their proposal the EPA regional office from which they are requesting funding.
- Applicants should request funding from a single EPA regional office which covers their geographic project location.
- The term “project location” as used in this RFP refers to the primary area where the affected vehicles operate, or the primary area where the emissions benefits of the project will be realized.
- For long-distance fleets, the applicant should decide which Region the proposal should be submitted to and provide justification as to why that Region was selected - whether it is the Region where the fleet is based, or operates the majority of the time, or other factors that would justify award in that Region.

Potential Pitfalls



- Major project changes mid-stream are not likely to be allowed
 - Potential competition issues – scores are based on vehicles/technologies/locations as proposed
- Vehicle & technology options & limitations
 - Not all technology combinations are appropriate for all vehicles
 - e.g. DPFs must meet exhaust temperature thresholds
 - Do as much homework ahead of time as possible to avoid complications
 - Technology must be verified for specific type of vehicle and model year – check the EPA and CARB verified technologies lists!

Tools and Resources



- Supporting Information for RFP can be found at:
www.epa.gov/cleandiesel/clean-diesel-national-grants#rfp
 - Applicant Fleet Description
 - Project Narrative Sample Format
 - Priority County and Area List
- Diesel Emissions Quantifier (DEQ)
 - Can be used to show expected project results, cost-effectiveness
www.epa.gov/cleandiesel/diesel-emissions-quantifier-deq
- Additional Resources found at: www.epa.gov/cleandiesel/clean-diesel-national-grants#rfp
 - “Tips for a Successful Diesel Retrofit Project” provides tips to help you get started and avoid common mistakes.
 - “Technologies, Fleets and Projects Information” provides information about retrofit technologies and what to look for.
 - Clean Diesel Clearinghouse (CDCH) is a web-based tool that helps users determine the best available emission reduction technology for retrofitting diesel-powered vehicles and equipment.
 - Shore Power Technology Assessment at U.S. Ports