

Federal Funding and Incentives for Clean Diesel Projects

**U.S. EPA Port Stakeholders Summit:
Advancing More Sustainable Ports**

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Strategies to Reduce Emissions from Existing Diesel Engines at Ports

- Port-related emission sources: ships, harbor craft, trucks, trains, cargo-handling equipment
- Clean diesel strategies:
 - Retrofit
 - Repower
 - Replace
 - Refuel
 - Idling reduction (anti-idling devices/reduce engine idling)
 - Shore-side electric power
 - Reduce ship speed
 - Improvements to port gate operations

In the Beginning...

- 1993: U.S. EPA Urban Bus Retrofit/Rebuild Program
- 1999: NESCAUM Heavy-Duty Diesel Emission Reduction Project
- 2000: U.S. EPA Voluntary Retrofit Program
- 2003: U.S. EPA Clean School Bus USA
- 2004: U.S. EPA National Clean Diesel Campaign

Federal Funding Began in 2003 with Clean School Bus USA

- First appropriation from Congress of \$5 million in FY 2003
 - 17 grants awarded
- FY 2003-2007 appropriations
 - \$31.5 million in total funding
 - Approximately 160 grants total
 - Approximately 40,000 school buses involved

U.S. EPA National Clean Diesel Campaign Announced in 2004

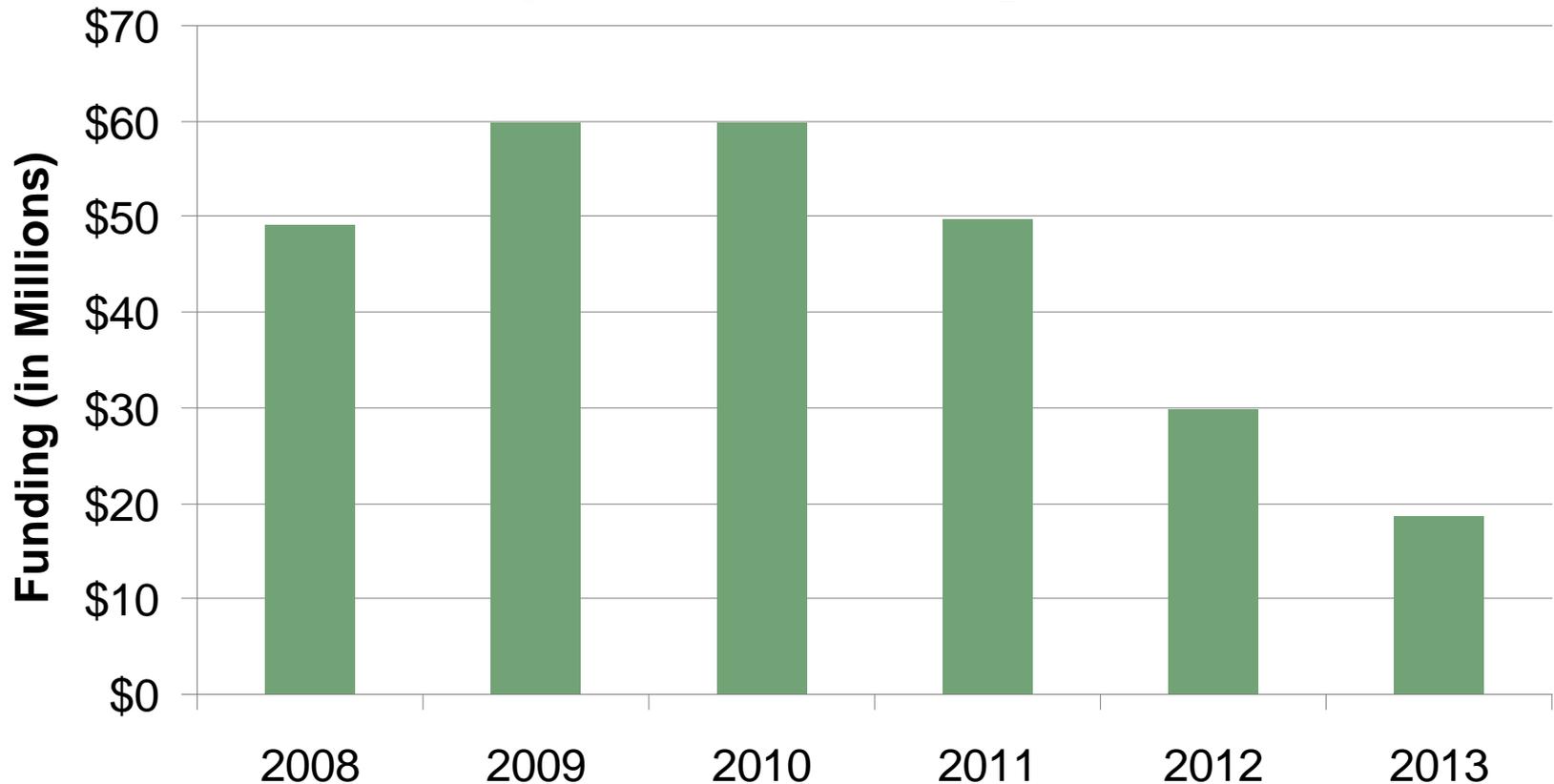
- Goal to reduce emissions from legacy fleet of approximately 11 million diesel engines
- Focus on five sectors:
 - School buses
 - Ports
 - Construction
 - Agriculture
 - Freight
- First funding for NCDC in FY 2004
 - \$1.1 million
 - 10 grants
- FY 2006-2007 appropriations
 - \$7.2 million
 - Approximately 50 grants

Diesel Emissions Reduction Act (DERA) Funding for NCDC

- DERA funding authorized by Energy Policy Act of 2005
 - 70% for national competitive grants (National Clean Diesel Funding Assistance Program, Clean Diesel Emerging Technologies Program, SmartWay Finance Clean Diesel Program)
 - 30% for states (State Clean Diesel Grant Program)
 - \$200 million authorized per year for FY 2007-2011
 - For the implementation of verified technologies
 - First appropriation in FY 2008
- DERA reauthorized in 2010
 - \$100 million authorized per year for FY 2012-2016
 - Allowed EPA to issue rebates
- DERA received \$300 million appropriation under American Recovery and Reinvestment Act in 2009
 - 160 projects funded

DERA Funding Levels (FY 2008-2013)

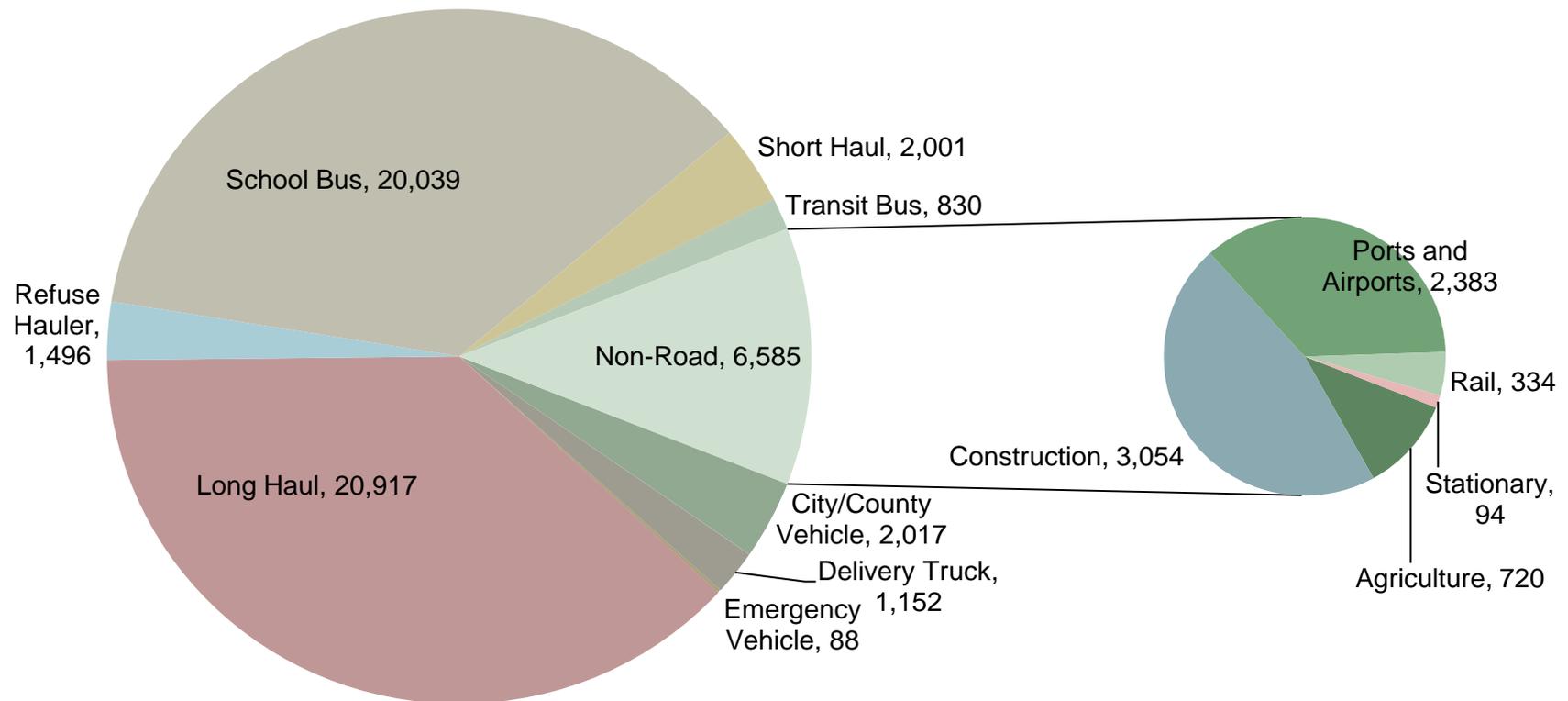
History of DERA Funding Levels



*Does not include \$300 million received in 2009 under ARRA.



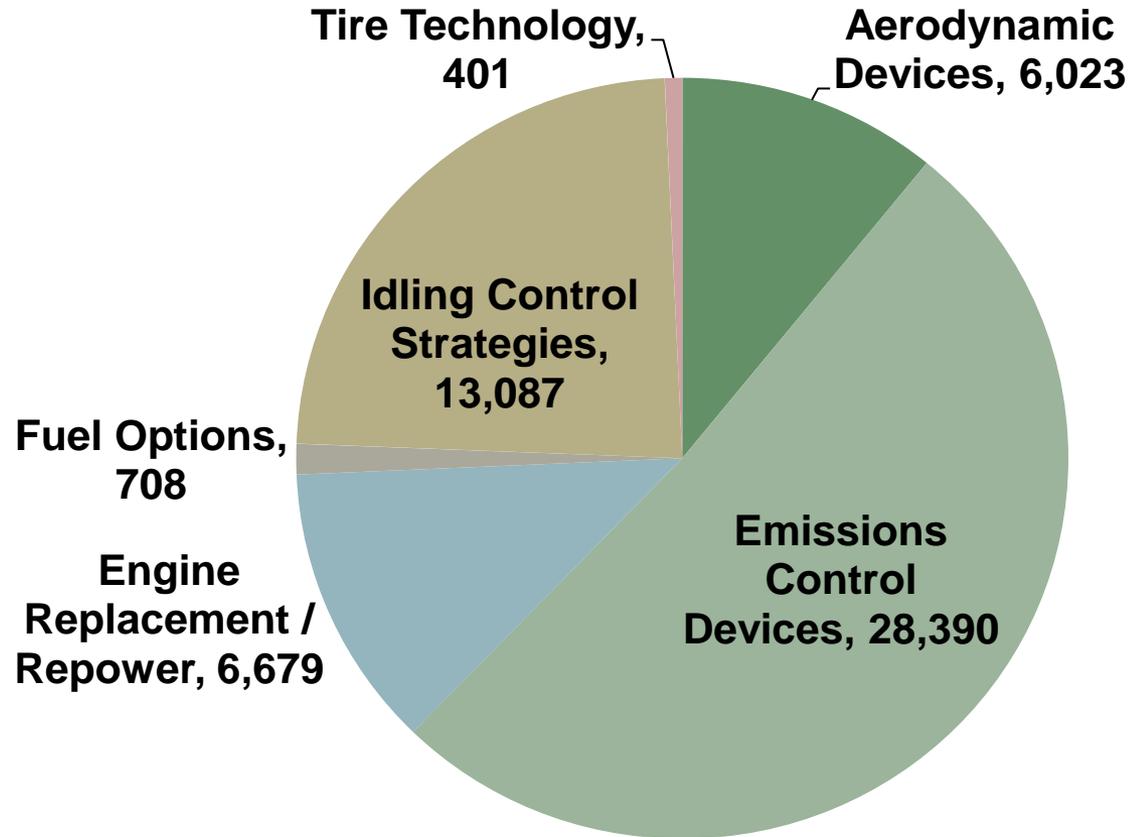
Engines Retrofitted/Repowered/Replaced by DERA



Source: U.S. EPA, data as of 9/4/13



Technologies Employed in DERA Grants



Source: U.S. EPA, data as of 9/4/13



EPA's Current In-Use Clean Diesel Strategy

- Focus on areas of disproportionate exposure to emissions from diesel engines:
 - Nonattainment areas
 - Ports
 - Freight distribution hubs
- Ensure that clean diesel projects are as cost-effective as possible
 - Targeting certain model years and types of vehicles/equipment
- Leverage resources where possible
 - State/local programs
 - Other federal programs and initiatives
 - Private-sector funding

EPA's FY 2013 RFP for Clean Diesel Projects at Ports

- Announced in December 2013
- Eligible strategies include: retrofits, engine upgrades/repowers, vehicle replacements, idle reduction, alternative fuel conversions
- Approximately \$4 million in DERA funds made available
- Grant recipients announced at Port Stakeholders Summit

EPA's Rebate Programs under DERA

- Rebates offer efficiencies over grants
 - Streamlines application and selection process
 - Limited to a subset of vehicles/technologies
 - Allows awards directly to certain private entities (e.g., those with public contracts)
- FY 2012 school bus rebate program
 - Announced in November 2012
 - For replacements only
 - Approximately \$2 million in DERA funds made available
- FY 2013 construction equipment rebate program
 - Announced in November 2013
 - For retrofits and repowers
 - Approximately \$2 million in DERA funds made available

Other Incentive Opportunities for Clean Diesel Projects

- Increased and sustained DERA funding needed
 - EPA received only \$20 million in DERA funding for FY 2014; DERA funding eliminated in President's FY 2015 budget proposal
- CMAQ funding: \$4.44 billion for FY 2013-14
 - Approximately \$325 million set aside for PM2.5 projects in FY 2013 and again in FY 2014
- State clean diesel programs
 - California, Illinois, Massachusetts, New Jersey, New York, Texas, Washington
- Other grant programs
 - California's Carl Moyer Program and Proposition 1B funding
 - Texas Emissions Reduction Plan (TERP)
 - DOE grant funding for alternative fuel projects

Other Incentive Opportunities for Clean Diesel Projects

- Expansion of SmartWay
 - SmartWay Drayage Program – Provides incentives to replace old port trucks with new ones
 - EPA currently considering expanding SmartWay to cover more of trucking freight industry
- Supplemental environmental projects (SEPs)
 - Opportunities for port projects?
- Contract specifications
 - Can be used to promote use of clean diesel technologies
- Tax incentives
 - Advantages (available all the time and not subject to exhaustion of funds) and disadvantages (more difficult for government to direct resources to specific areas of concern)

Final Thoughts

- Over 14 years of progress, but still millions of legacy diesel engines operating across the U.S.
- Need effective incentive policies/strategies to increase interest in clean diesel projects
- Companies continue to invest and expand the technology options available for reducing PM and NOx emissions from existing diesel engines
- Defined window of opportunity for cleaning up legacy fleet
- Need to preserve benefits of new diesel engines