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…

- 1999: NESCAUM Heavy-Duty Diesel Emission Reduction Project
- 2000: U.S. EPA Voluntary Retrofit Program
- 2003: U.S. EPA Clean School Bus USA
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

- School Bus, 20,039
- Long Haul, 20,917
- Refuse Hauler, 1,496
- Non-Road, 6,585
- Short Haul, 2,001
- Transit Bus, 830
- Construction, 3,054
- City/County Vehicle, 2,017
- Delivery Truck, 1,152
- Emergency Vehicle, 88
- Ports and Airports, 2,383
- Rail, 334
- Stationary, 94
- Agriculture, 720

Source: U.S. EPA, data as of 9/4/13
Technologies Employed in DERA Grants

- Aerodynamic Devices, 6,023
- Emissions Control Devices, 28,390
- Engine Replacement / Repower, 6,679
- Fuel Options, 708
- Idling Control Strategies, 13,087
- Tire Technology, 401

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