

National Clean Diesel Campaign



Projects, Programs and Funding



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Office of Transportation and Air Quality



Mid-Atlantic Diesel Collaborative

Diesel Directions Workshop

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Presentation Overview

- Overview of NCDC
- Program Successes
- Technology Verification
- Costs and Benefits
- NCDC Funding
- Energy & Transportation Bills



Overview of National Clean Diesel Campaign

- Goal: *reduce emissions from the legacy fleet of over 11 million diesel engines by 2014*
- Focus on five sectors:
 - School Buses
 - Ports
 - Construction
 - Agriculture
 - Freight
- Program activities:
 - Technology verification
 - Providing technical and policy analysis
 - Coalition-building and outreach
 - Establishing projects through grant competitions



Sector-Based Programs

- **Clean School Bus USA**
 - Aims to modernize 100% of the nation's school bus fleet by 2010
- **Clean Ports USA**
 - Encourages port authorities and terminal operators to reduce emissions and provide economic incentives to operate more efficiently
- **Clean Construction USA**
 - Encourages reducing emissions from major public and private construction projects in non-attainment areas
- **SmartWay Transport Partnership**
 - Challenges freight companies to improve the environmental performance of their fleets
- **Clean Air Agriculture (newest sector)**
 - Promotes biofuels/renewables & retrofit in farming communities in non-attainment areas in partnership with USDA



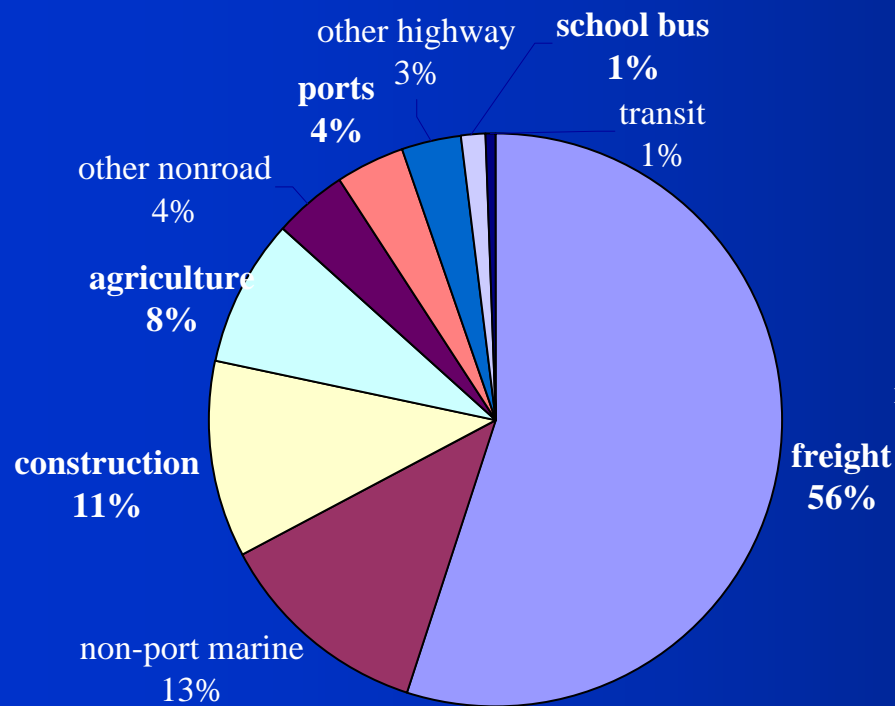
Focus on Key Sectors

- We chose sectors based on:
 - Levels of emissions
 - Public health impacts
 - Non-attainment zones
 - Proximity to sensitive populations
 - Cost-effectiveness of reduction strategies
 - Timely opportunities
 - e.g. Expansion of ports and major road construction
 - Support from stakeholders and the public

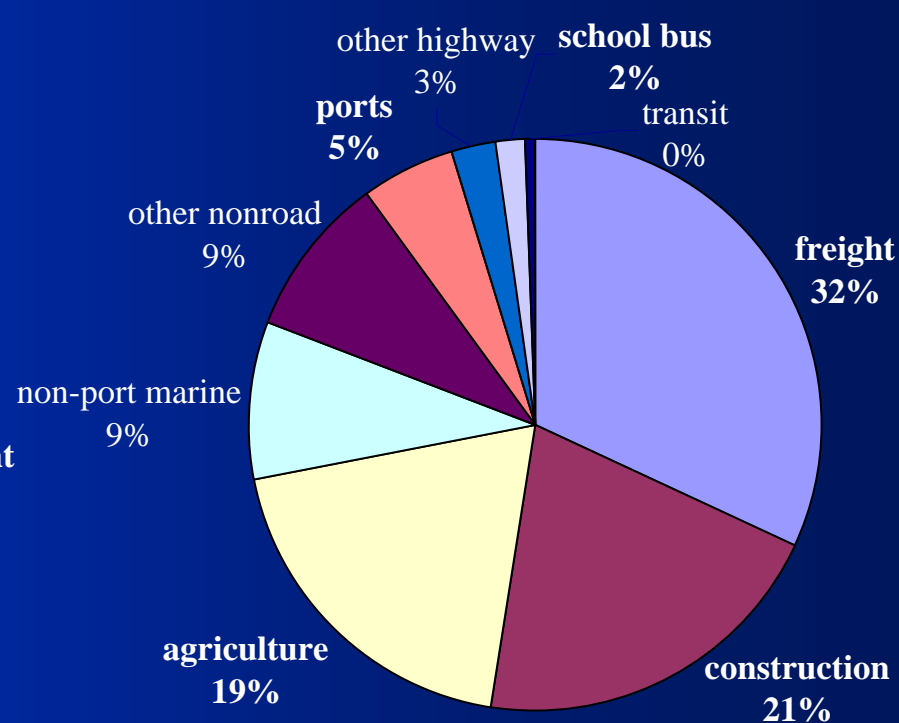


Mobile Source Diesel Emissions Inventory by Sector (2004)

NO_x
(6.3 million tons)



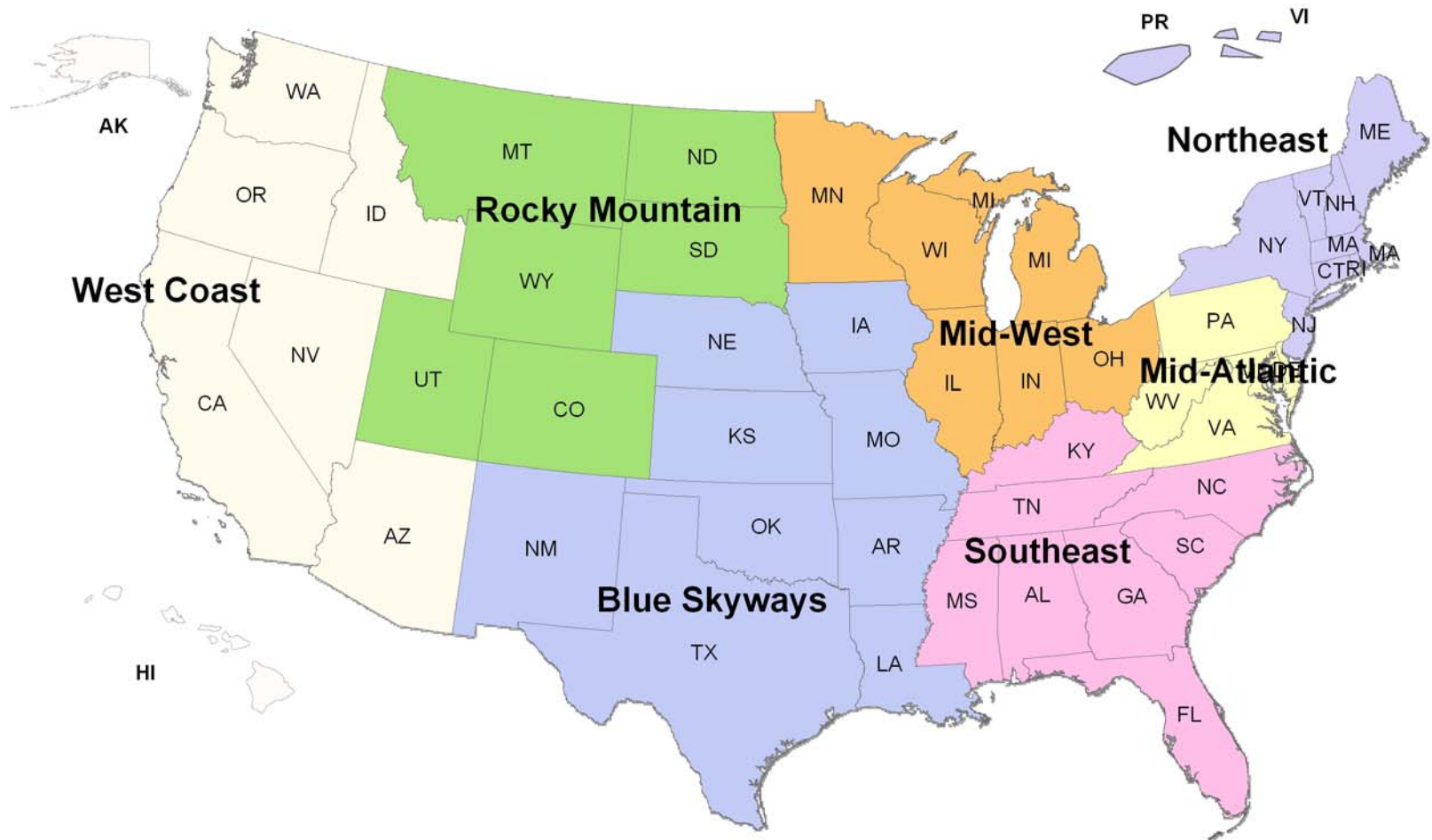
PM 2.5
(305,000 tons)



Program Successes

- Over 600 Partners
- 20 States (and DC) using ULSD early
- Over 200,000 engines are being retrofitted
- 17 emissions control technologies verified
- Partners have contributed significant resources
 - Over 2 external dollars for every 1 federal dollar invested
 - States have established programs with funding > \$400M
- Specifically,
 - As a result of Clean School Bus USA:
 - Over 2 million children in 150 school districts are riding approx. 20,000 cleaner buses
 - As a result of SmartWay Transport:
 - 53 idle reduction projects are in place along major interstate corridors (I-95, I-40, I-5, I-35, I-10, I-85)
 - 322 Total Partners
 - 229 Trucking Carriers, 8 Rail Carriers, 27 Shippers, 7 Shipper-Carriers, 14 Logistics, 37 Affiliates
 - Representing nearly 5 percent of the trucking industry, with over 300,000 tractors and 500,000 trailers traveling over 14 billion miles per year

Regional Clean Diesel Collaboratives



Technology Verification

- EPA has a rigorous testing program for evaluating technologies
- EPA works with technology vendors, engine manufacturers, MECA
- Memorandum of Agreement between EPA and CARB
 - Collaboration with Texas
- Retrofit technologies to reduce PM and NOx emissions currently verified by EPA & CARB:
 - DPFs, DOCs, Crankcase Filtration, Emulsified Fuel, Biodiesel, EGR and SCR systems.
- Information about EPA's Verification program:
<http://www.epa.gov/otaq/retrofit/retroverifiedlist.htm>



Costs and Benefits

- **Clean diesel programs currently underway will:**
 - Reduce over 20,000 tons of PM
 - Provide nearly \$5 billion in health benefits
 - Provide a benefit-to-cost ratio of up to 13:1
- **Technology Costs/Benefits**
 - Aftertreatment (DOC, DPF) \$500 - \$8000
 - 20-90% PM reduction
 - Crankcase filtration ~ \$500
 - 5-10% PM reduction



Federal Funding

National Clean Diesel Campaign

- 2005 National Clean Diesel Campaign Grants
 - \$7.5 M for Clean School Bus. 37 grants awarded.
 - 172 applications (up from 103 in 2003) from 36 states
 - Requested \$50 million
 - \$1.1 for ports & construction. 10 grants awarded.
 - 25 applications from 16 states
 - Requested \$4 million
- 2005 SmartWay Transportation
 - \$5 M for idle reduction demonstration projects. 5 grants awarded.
- FY06 budget
 - \$5 Million for National Clean Diesel Campaign
 - \$7 Million for Clean School Bus grants
 - Funding will be distributed through EPA's Regional Clean Diesel Collaborative network
- FY07 budget
 - President requested \$50 million to support clean diesel activity



Future Federal Funding:

Energy and Transportation Bills Overview

- **Authorized Funding – Energy Bill**

Diesel Emission Reduction Act (DERA)

- \$1Billion over 5 years
- Expect to fund 150-200 projects
- 70% of the funds to be distributed by EPA in National Grants and Loans
- 20% of the funds to establish State grant/loan programs
- An optional 10% of the funds can be used to increase state allocations for states that match federal funds

Fleet Modernization

- \$100 M over 3 years (focus on ports)

Clean School Bus

- \$110 M over 2 years with more funds thru FY2010
- Expect to fund 40 - 75 projects

Idle Reduction

- \$140M over 3 years for idle reduction



Future Federal Funding:

Energy and Transportation Bills Overview

- **Transportation Bill -**
 - Congestion Mitigation and Air Quality (CMAAQ)
 - Priority for diesel retrofits in construction
 - In partnership with DOT, EPA must provide guidance to states on effectiveness of technologies and strategies
 - \$1.4 billion per year for 6 years



For More Information

Visit EPA's National Clean Diesel Campaign
Website

www.epa.gov/cleandiesel

