

National Clean Diesel Campaign



Recommendations for Reducing Emissions from the Legacy Diesel Fleet

*Clean Air Act Advisory Committee
January 11, 2007*



“Recommendations for Reducing Emissions from the Legacy Diesel Fleet”

- **Clean Diesel Working Group formed in 2004 under the MSTRS to advise EPA on:**
 - Determining suitable diesel emission reduction strategies
 - Evaluating in-use performance of retrofit technology
 - Educating the public on emission reduction strategies
 - Establishing national incentives for cleaner diesel strategies
- **Submitted Report in January, 2006 to the CAAAC**
- **CAAAC submitted Report to Administrator in April, 2006**

Report on Legacy Diesel Fleet

- Six Cross-Sector Recommendations
- Report covered four sectors:
 - Freight, School Bus, Ports, Construction
 - Over 40 individual recommendations for these four sectors
- Reporting today EPA's progress on:
 - Cross-sector recommendations
 - Sector-specific recommendations

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Cross Sector Recommendations

- Potential for Cleaning up Existing Fleet is Significant and Worth the Investment
- Deploy Most Feasible Technology for an Application, and Provide Positive Recognition
- Offer Range of Funding Options and Incentives (grants, loans, rebates, tax incentives, etc.)
- Take Full Advantage of the 2005 Energy Act and 2005 SAFETEA-LU Provisions
- Streamline the Agency's Technology Verification Program
- Accelerate Education and Outreach for Maximum Benefit

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Potential for Cleaning up Existing Fleet is Significant and Worth the Investment

- Yes, we agree and it's a shared-responsibility
- President's budget a good start
- Need public/private investment
- State programs are critical

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Deploy Most Feasible Technology for an Application/Provide Positive Recognition

- Yes, we agree this is a very important aspect of our program
- Actions:
 - Continuing to include cost effectiveness as a criteria in evaluating grant funding requests
 - Evaluating cost effectiveness of applying various clean diesel strategies to the existing fleet
 - Technical Report evaluating PM retrofit technology for the Highway Fleet issued (March, 2006)
 - Drafting report for the Nonroad Fleet
 - Hosted SmartWay Excellence Awards (October, 2006)
 - Published NCDC and SmartWay Progress Reports (June, 2006)

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Offer Range of Funding Options and Incentives

(grants, loans, rebates, tax incentives, etc.)

- From FY03-FY06, the NCDL has granted over \$35 million to establish clean diesel projects across the U.S.
 - Pending FY07 budget, planning to provide additional funding
- Create national and state/local capitalization programs
 - Working with the Small Business Administration, created a National Environmental Loan Program for small trucking companies to purchase technologies
 - Worked with the Oregon State Infrastructure Bank program and Cascade Sierra Solutions
 - Looking into multi-state State Infrastructure Bank programs along the I-95 and I-5 corridors and developing innovative apportionment strategy
- Integrate public and private financing to buy down interest rates, guarantee loans and extend terms

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Take Full Advantage of the 2005 Energy Act and 2005 SAFETEA-LU Provisions

- **EPA Act of 2005 - Authorization levels** (1st year)
 - Diesel Emissions Reduction \$200M
(Sometimes called DERA)
 - School buses \$55M
 - Fleet Modernization \$20M
 - Idle Reduction \$30M
- **President's Request:**
 - Proposed \$49.5M for clean diesel activities under DERA
 - Limits funds to grants in nonattainment (NA) areas
- **House level: \$28M (not limited to NA areas)**
- **Senate level: \$20M**
- **Final Appropriation: TBD**

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***Take Full Advantage of the 2005 Energy Act and
2005 SAFETEA-LU Provisions***

- **SAFETEA-LU of 2005**

- Congestion Mitigation and Air Quality
- “States and metropolitan planning organizations shall give priority...to...diesel retrofits...”
- Diesel retrofits defined as “Retrofit Technology, Engine Replacement, Engine Repower, Rebuild”
- Requirement for EPA to publish emissions reduction guidance

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***Take Full Advantage of the 2005 Energy Act and
2005 SAFETEA-LU Provisions***

- **This cross-cutting recommendation is one of the most important for FY 2007**
- **2005 Energy Act: Diesel Emissions Reduction**
 - Several requirements for EPA under this provision
 - Guidance for obtaining SIP and Conformity credits for projects issued (June, 2006)
 - Guidance for identifying cost effectiveness of certain clean diesel technologies issued (March, 2006)
 - Guidance for implementing DERA currently being drafted (expected one month post-appropriation)
 - Report annually to Congress on emissions reductions
 - Emissions calculator finalized (October, 2006)
- **2005 SAFETEA-LU**
 - SIP/Conformity Guidance issued (June, 2006)
 - DOT’s CMAQ Guidance issued (Dec, 2006, DOT lead; EPA consulted)
 - Outreach to MPOs, states, etc... regarding benefits of clean diesel
 - Guidance for cost-effectiveness of CMAQ-funded projects currently being drafted

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Streamline the Agency's Technology Verification Program

- **Objectives**

- Gain Efficiency – For EPA & Manufacturers
- Evaluate technologies efficiently and accurately
- Reduce time to verify
- Increase available technologies
- Be certain technologies are performing properly in the field

- **Actions**

- Several consultative meetings with Industry, ARB & Others
- New Guidance being drafted, enhancing web presence
- Accept ARB verified mobile source technologies
- Initiated Conditional Verifications
- Flexibility Outside of ETV Process
- In-use Data to Increase Confidence

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Accelerate Education and Outreach for Maximum Benefit

- **Clean School Bus program**

- Collaboration with Scholastic on Magic School Bus book for children
- National Idling Reduction Campaign materials created
Piloted this summer, launching this winter

- **SmartWay Partnership**

- 2:1 private match in ads for funds. Total donated value: ~\$1.7M
- Placements in Forbes, Business Week, Kiplinger's, 1200 truck stops, etc.
- Upcoming spot on "Trick my Truck" (Country Music TV channel show)

- **Outreach to Communities**

- Clean Diesel web site revamped
Case Studies for sector-based projects highlighted
Expanded and More Comprehensive Clean Construction USA website
- Program Info Kits, NCDC Progress Report

- **Outreach at numerous industry and regional conferences, workshops, etc...**

- **Hosted SmartWay Excellence awards in October 2006**

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School Bus Sector: Recommendations and Responses

- **Develop an Outreach and Education Program**
 - Magic School Bus book
 - National Idling Campaign
 - Continuing to reach out to organizations, school districts, governments about available funding
- **Focus on older buses, cost-effective solutions**
 - Grant criteria and awards reflect recommendation
- **Reach out to smaller/rural/less affluent districts**
 - Of 35 FY05 grants, 13 are whole or in part in such districts
 - Striving to make process simpler so more districts can participate

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Ports Sector: Recommendations and Responses

- **Share Best Practices: Educational Materials and Tools**
 - New case studies and technology workshops
 - Held EPA Executive-level Ports workshop in Long Beach to pool experience, resources
- **Develop Emissions inventory**
 - Project started Fall 2006
- **Coordinate with other Federal agencies to address infrastructure needs that accommodate growth in an environmentally beneficial way**
 - Co-sponsoring w/MARAD International Ocean Going Vessel Conference Feb 2007
 - Working with DOT on their Congestion Mitigation Initiative
 - Participated in MARAD sponsored meetings such as the Cold-Ironing ISO workgroup meeting Sept 2006
 - Working with USDA on low cost loans for clean drayage trucks

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Construction Sector: Recommendations and Responses

- **Investigate and assess operational modifications that have emissions benefit**
 - EPA Report on low-cost emissions reduction strategies for construction sector. To be released (Early 2007)
- **Coordinate with stakeholder communities regarding grant programs**
 - Outreach to AASHTO, ARTBA, APWA, NARC, AMPO
- **Establish ongoing outreach and educational initiatives- including website**
 - Expanded Clean Construction USA website - new case studies to be added this winter
 - Developing clean construction video
- **Accelerate the process for verifying nonroad retrofit technologies**
 - First conditional verification with first nonroad engine upgrade kit

Freight Sector: Recommendations and Responses

- **Create national and state/local capitalization programs**
 - National environmental loan program with the Small Business Administration
 - Oregon State Infrastructure Bank program with Cascade Sierra Solutions
 - Looking at a multi-state State Infrastructure Bank programs along I-95 and I-5
 - Integrate public and private financing to buy down interest rates, guarantee loans and extend terms
 - Currently, creating low interest loan program to purchase upgraded used trucks
- **Verify effectiveness of technology bundles (fuel savings & emission reductions)**
 - Developed Technology Calculator to help evaluate fuel savings
 - New test results on technologies were presented at Oct. SAE conference
 - Evaluating upgrade kits under real-world conditions

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Freight Sector (cont.)

- **Increase demand for cleaner, more efficient freight**
 - Continued recruitment of partners and outreach to industry through PSAs, articles, SmartWay Excellence Awards
- **Create a SmartWay truck labeling program**
 - Developing environmental criteria for labeling trucks
 - Developing fuel economy test procedures for heavy-duty trucks
- **Create weight waivers for technologies**
 - 400 lb weight exemption for idle reduction technologies included in Energy Policy Act of 2005
 - DOT interprets language as optional, so currently only Oregon has publicly adopted waiver

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EPA is Working Collaboratively to Accelerate Progress of Diesel Retrofits

- Northeast Diesel Collaborative (Regions 1, 2)
 - Urban Fleets (CMAQ), Ports, construction
- Mid-Atlantic Diesel Collaborative (Region 3)
 - Highlighting urban fleets, school buses, ports
- Southeast Diesel Collaborative (Region 4)
 - Federal fleets, agriculture, school buses, construction
- Midwest Clean Diesel Initiative (Region 5)
 - Innovative financing, school buses, rail, ports, agriculture
- Blue Skyways Collaborative (Regions 5, 6, 7)
 - Biofuels, rail, school buses, agriculture
- Rocky Mountain Clean Diesel Collaborative (Region 8)
 - Public fleets, school buses, agriculture
- West Coast Collaborative (Regions 9, 10, w/Canada and Mexico)
 - Ports, freight, ocean going vessels, construction, agriculture

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Regional Clean Diesel Collaboratives



For More Information

Visit EPA's National Clean Diesel Campaign Website

www.epa.gov/cleandiesel

