



Clean School Bus USA

**A Partnership to Reduce Pollution from
School Buses**

Office of Transportation and Air Quality

Clean School Bus USA



- Background and Goals of CSBUSA
- Highlights of Past Year
- CSBUSA Demonstration Projects Update with Results
- Looking forward

Clean School Bus USA:

Tomorrow's Buses for Today's Children

- **CSBUSA is a partnership of public and private sector leaders**
- **Launched in April 2003 to provide cleanest possible transportation for this generation of school children by:**
 - Reducing school bus idling & reinforcing smart driving practices
 - Retrofitting buses with modern pollution control technology
 - Replacing the oldest buses with new, cleaner buses
- **The goal: modernize 100% of the fleet by 2010**
- **The benefits: healthier kids and communities**
 - Less air pollution
 - 1,000s of fewer cases of respiratory symptoms each year
 - Reduced asthma symptoms, medication, and missed school days

Why Focus on School Buses?



- **School buses are very safe but we can do better:**
 - Many are very old
 - Rudimentary or no emission controls
- **24 million children in the U.S. ride school buses - almost 400,000 are diesel powered Diesel exhaust presents a significant public health risk**
 - PM concentrations can be higher inside the bus than outside
- **2004 & 2007 HD standards only apply to new engines**
 - Today's kindergartners will be in college before the school bus fleet turns over
- **Effective retrofit technologies and fuels now widely available**

Learn The Three “R’s . . .”



- **Reduce Idling and Reinforce Smart Driving Practices**
 - Smart, easy, and immediate way to reduce pollution
 - Saves fuel and money
 - All school districts can participate
- **Retrofit Buses**
 - Can achieve significant reductions in particulate matter emissions (as much as 90%)
- **Replace Buses**
 - Replacing old buses delivers important safety as well as health benefits

Retrofits

- **A Retrofit can be:**

any change to an engine system above and beyond what is required by EPA regulations that improves the engine's emission performance:

- **Catalyst or filter**
 - **Engine upgrade**
 - **Early engine replacement**
 - **Use of cleaner fuels or additives**
 - **Idling control equipment**
 - **Combination of above**
- **EPA's Retrofit web site maintains a list of manufacturers and verified technology**

Replacement Options



- **Cleaner Diesel, Compressed Natural Gas (CNG) and Propane offer very low emissions**
 - School bus engines are subject to tough new emission standards taking effect for 2007 engines
 - New buses can take advantage of 2007 technology now
 - Same standards will apply to all
- **In addition, replacement buses offer new safety features**
- **Replacement engines also an option**

Retrofit News

- **EPA and California Air Resources Board MOU**
 - CARB verified technology
 - Link from EPA's retrofit web site
 - ????

Clean School Bus USA: Program Highlights

- **CSBUSA supports 37 EPA demonstration grant projects**
- **Supporting other clean school bus projects funded by States, corporate sponsorship, other Federal agencies, environmental settlements**
- **Network of public and private stakeholders who in turn support school districts**
- **Preparing and disseminating public information materials**

Clean School Bus USA: Program Highlights

- **Supporting other clean school bus projects funded by States, corporate sponsorship, other Federal agencies, environmental settlements**
 - Many projects across the U.S.
 - EPA Regional Offices very involved
 - Regional or State workshops

Clean School Bus USA: Program Highlights

- **Network of public and private stakeholders that supports school districts**
 - **NAPT**
 - **NSTA**
 - **NASDPTS**
 - **Environmental organizations**
 - **Educational organizations**
 - **Industry**
 - **State and local government**
- **EPA FACA clean school bus work group**
 - **FACA – Federal Advisory Committee Act**
- **Clean School Bus coalition**

Clean School Bus USA: Program Highlights

- **Preparing and disseminating public information materials**
 - Brochures
 - Five-minute anti-idling video
 - **For school bus driver trainings**
 - **CD or VHS format**
 - **“Key Messages” hand-out available**
 - **Available at CSBUSA booth or leave name/address**
 - Bookmarks
 - Available free from 1-800-490-9198
- **EPA’s CSBUSA web site also very informative**
 - Anti-idling information
 - Links to specific projects across the country
 - Funding Updates
 - Grants announcements

CSBUSA Demonstration Projects



- **Congress provided \$5 million for FY 03 and FY 04 for demonstration project grants**
- **EPA held competition for grant funds**
- **EPA received an overwhelming response to FY03 solicitation:**
 - 120 applications, 113 eligible
 - Requests totaled almost \$60 million
 - Match offered totaled more than \$36 million
 - Requests ranged in size from \$2,000 to \$2 million
 - Average request was \$480,000
 - Applications from all EPA regions, 36 states + Puerto Rico
 - Applicants included school districts, state/local agencies, nonprofits, and national organizations

FY03 Demonstration Projects



- **17 projects funded in 14 States**
 - \$5 million match by recipients
- **Some projects have been completed and are providing good information & “lessons learned”**
- **Partnerships are key to results**
 - Grant experience
 - Technical capacity
- **The 2003 projects show that a variety of technologies and approaches work successfully for school districts**

FY04 Demonstration Projects



- **Congress provided another \$5 million for FY 04 grants**
- **20 projects funded across U.S.**
- **Again, a diverse set of communities and technologies**
 - Winners announced in June, 2004
 - EPA used '03 application pool because many excellent applications were still unfunded from 2003
- **Approximately 10,000 buses will be affected from the '03 and '04 grants.**

A Mix of Approaches. . .

- **Various technologies:**
 - PM filters + ULSD, catalysts, compressed natural gas, diesel emulsion, biodiesel and replacement engines
- **Diverse mix of settings**
 - Small rural locations to large metropolitan school districts
- **Common factors:**
 - Commitment to making project successful
 - Leadership at many levels
 - Flexibility and patience

Progress: 2003 CSBUSA Grant Results

- **125,000 students rode back to school this year on cleaner buses; 370,000 students affected**
- **As of September 1, 10 of 17 projects are complete, others are underway**
 - ~800 buses equipped with DOCs or DPFs
 - ~250 buses using clean fuels
 - 10 buses replaced
 - 70 districts implementing idle reduction programs
- **CSBUSA grants awarded in 2003 will ultimately impact ~ 5,000 buses**

Sources of Funding for CSBUSA Projects

- **Federal**
 - EPA: \$10M FY03-04, plus Regional funding
 - DOE Clean Cities
- **State**
 - New York - \$5M/yr for school bus retrofit
 - Texas - \$130M/yr for retrofits over the next 3 yrs
 - California – (\$61M secured this year)
 - Approx \$70M made available 98-03
 - Washington - \$5M/yr for school bus retrofits over the next 5 yrs
- **Supplemental Environmental Projects (SEPs)**
 - Federal settlements (Toyota)
 - State settlements
- **Local funds**
- **Corporate sponsorship**

CSBUSA

- **Partnerships are key**
- **Leaders come from every sector**
- **Tomorrow's engines for today's children can be a reality**

For more information...



- www.epa.gov/cleanschoolbus
- www.epa.gov/otaq/retrofit