

C L E A N A I R,
T R A N S P O R T A T I O N,



A N D T H E P O W E R O F
P A R T N E R S H I P S



O N T H E R O A D T O

Voluntary programs and public-private partnerships are playing an increasingly important role in the U.S. Environmental Protection Agency's (EPA's) efforts to curb pollution from cars, trucks, buses, and other vehicles. Working together, EPA and its partners are voluntarily building on the tremendous air quality gains the transportation sector has achieved during the past 30 years.



Cars, trucks, buses, and other mobile sources burn fuel and emit pollutants that contribute to smog, respiratory illnesses, and climate change. Partners in EPA's voluntary programs are helping to reduce harmful emissions, improve fuel efficiency, and ensure a cleaner environment for all Americans.

Although vehicle emission standards and regulatory controls have been critical to EPA's past success and continue to be important today, its voluntary transportation programs target creative, non-regulatory opportunities. These programs encourage innovation and new ideas and rely on a strong environmental commitment to cleaner air and a better environment for future generations.

EPA's voluntary air quality and transportation initiatives are effectively reducing vehicle emissions and improving public health through a wide range of activities, including:

- Environmentally friendly transportation options for commuters
- Retrofits for existing diesel truck, bus, locomotive, and off-road engines
- Cleaner and more energy efficient ground freight and trucking fleet operations

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- Idling reductions
- Cleaner school buses

Businesses, state and local government agencies, industry organizations, environmental groups, public health advocates, and communities are among the organizations EPA is



partnering with in these activities. Together we are making effective and important contributions to public health, reducing fuel consumption and greenhouse gases, and making a cleaner environment for all Americans.

This pamphlet highlights four voluntary programs led by EPA's Office of Transportation and Air Quality: 1) Best Workplaces for CommutersSM, 2) Voluntary Diesel Retrofit Program, 3) SmartWaySM Transport, and 4) Clean School Bus USA.

**MORE INFORMATION ON THESE PROGRAMS IS AVAILABLE
ON EPA'S WEB SITE AT <WWW.EPA.GOV/OTAQ/VOLUNTARY.HTM>.**

Best Workplaces for CommutersSM

Since 1970, the number of miles driven by the public has nearly tripled from more than 1 trillion miles, to approximately 2.8 trillion miles in 2002. In many large metropolitan areas where these increases have been among the highest, new growth, long commutes, and busy schedules compound to create crowded roads, poor air quality, and stress in the workplace.

To help tackle these problems, EPA and the U.S. Department of Transportation (DOT) created Best Workplaces for CommutersSM. Employers that are active Best Workplaces for CommutersSM offer their employees outstanding commuting options that can help ease local traffic congestion, clean the air, and reduce greenhouse gas emissions, while reducing employee stress and helping employees save on fuel costs. Meanwhile, these benefits also help attract and retain the best employees.



A typical worker who switches from driving alone to using commuter benefits for mass transit can save more than \$1,000 a year in transportation costs, such as gas and wear and tear, and can avoid driving 5,000 miles a year.

EPA estimates that Best Workplaces for CommutersSM employers and employees are reducing the number of miles driven by 3 to 6 million miles per day; saving between 35 and 70 million gallons of gasoline per year; and preventing the annual release of 300,000 to 600,000 metric tons of CO₂ [.08 to .16 MMTCE (million metric tons of carbon equivalent)].



Employers contributing to these achievements are meeting a *National Standard of Excellence* in commuter benefits and are publicly recognized by EPA and DOT as Best Workplaces for CommutersSM. These benefits include options such as transit passes, vanpool vouchers, telecommuting programs, lockers and showers for bicyclists, and compressed work week schedules. Best Workplaces for CommutersSM receive free training, networking opportunities, and Web-based tools to help them promote and evaluate the effectiveness of their commuter benefits programs.

Now in its third year, more than 2,000 companies representing more than 900,000 employees nationwide have become a Best Workplaces for CommutersSM. Best Workplaces for CommutersSM represent a broad range of business sectors and sizes, including small companies with fewer than five workers and Fortune 1000 companies that employ more than 40,000 workers. Transportation management agencies and transportation service providers play an important role by promoting this program in communities throughout the country.

FOR MORE INFORMATION, VISIT

<WWW.BESTWORKPLACESFORCOMMUTERS.GOV>

OR <WWW.BWC.GOV>.

If half of all U.S. employees worked for employers offering commuter benefits at the *National Standard of Excellence* level as encouraged by the Best Workplaces for CommutersSM program, up to 44 million metric tons [12 MMTCE] of carbon dioxide from cars would be eliminated annually.



Voluntary Diesel Retrofit Program

Through EPA's Voluntary Diesel Retrofit Program, fleet owners and operators have committed to retrofit more than 150,000 diesel-powered trucks, buses, and non-road equipment. As a result, more than 200,000 tons of pollution, including emissions of particulate matter, nitrogen oxides, carbon monoxide, and hydrocarbons will be prevented.

The black soot and fine particulate matter that spew from the exhaust pipes of many trucks, buses, and other heavy-duty diesel vehicles remain one of the most visible forms of air pollution. Although stringent new standards to control emissions from diesel-powered engines will become effective starting in 2007, these new standards will not apply to existing trucks and buses—many of which will operate for another 25 years or more.

The goal of the Voluntary Diesel Retrofit Program is to clean the particulate matter, nitrogen oxides, air toxics, and other unhealthy emissions present in the diesel exhaust of trucks that otherwise would be unaffected by EPA's upcoming standards. Participants in the program are taking early action to reduce diesel emissions and are making important contributions to public health and the environment.

Fine particulate matter and other emissions present in diesel exhaust are known to pose serious public health concerns. Fine particles cause health problems by passing through the nose and throat and becoming lodged in the lungs, resulting in lung damage and even premature death. They can also aggravate respiratory conditions, such as asthma and bronchitis. EPA believes diesel exhaust is likely to be a human carcinogen.

Participants in EPA's Voluntary Diesel Retrofit Program are achieving several important environmental and public health benefits, including:

- Prevention of premature deaths.
- Fewer hospital and emergency room admissions among individuals with heart and lung disease.



- Fewer absences from school and work due to aggravated asthma and other heart and lung diseases.
- Improved visibility and less haze in urban and rural areas.

Participants in the program are publicly recognized by EPA for their efforts and receive ongoing technical assistance to reach their goals. Voluntary Diesel Retrofit Program participants reduce emissions by retrofitting diesel engines with pollution controls; implementing anti-idling programs; and using clean-fuel alternatives, such as ultra-low sulfur diesel and compressed natural gas.

Owners and operators of heavy-duty truck fleets, diesel and retrofit technology manufacturers, state transportation and air quality agencies, and fuel refiners are among the many businesses and organizations active in EPA's Voluntary Diesel Retrofit Program. EPA provides technical assistance,



Heavy-duty diesel trucks account for more than one-third of all particulate matter emissions generated by the transportation sector. Emission control and retrofit technologies that can provide immediate air quality and health benefits when applied to existing diesels are available now.

offers small grant opportunities, and is always looking for new partners and opportunities. New projects will enable us to achieve even greater emissions reductions and to succeed in producing more critically important public health and environmental benefits.

FOR MORE INFORMATION, VISIT <WWW.EPA.GOV/OTAQ/RETROFIT> .

SmartWaySM Transport



Most of the goods, products, and commodities manufactured and consumed in the United States are delivered by truck or rail, otherwise known as ground freight. Ground freight is an integral part of the U.S. economy.

Ground freight also is a significant source of emissions that causes air pollution and contributes to climate change. Ground freight is a major source of greenhouse gas emissions, accounting for approximately 18 percent of carbon dioxide (CO₂) emissions from all transportation sources.

SmartWaySM Transport partners include companies that haul freight (carriers), retailers and manufacturers of goods that require shipping (shippers), and EPA. The goal of the program is to reduce greenhouse gas emissions and achieve greater fuel efficiency in the transportation sector. Other important benefits include reductions in nitrogen oxides, particulate matter, and other air pollutants, especially in densely populated urban areas where exposure to these pollutants is of greatest concern.



Through this voluntary partnership, EPA expects to eliminate 33 to 66 million metric tons of CO₂ emissions [9 to 18 MMTCE] and up to 200,000 short tons of NO_x emissions per year by 2012. This represents a savings of up to 150 million barrels of oil a year and is equivalent to removing the CO₂ emissions of up to 12 million cars.

Carriers become SmartWaySM Transport partners once they agree to measure their current transportation-related environmental performance and commit to making future improvements. For example, future improvements could include the use of technologies that reduce long-duration truck engine idling. Strategies that reduce wasteful idling are one of the key components of the SmartWaySM Transport program.

EPA's SmartWaySM Transport partners also can use a variety of other strategies and technologies to meet their goals. These include improved aerodynamics, improved logistics management, automatic tire inflation systems, wide-base tires, driver training, low-viscosity lubricants, reduced highway speed, and lightweight vehicle components.

Shippers become SmartWaySM Transport partners by committing to ship a minimum percentage of their goods with SmartWaySM Transport carriers. Shippers also agree to reduce CO₂ emissions generated by operations under their control.

The SmartWaySM Transport eligibility requirements are designed to encourage coordination between shippers and carriers. Shippers and carriers also will work with EPA to market and promote the program.

SmartWaySM Transport partners are working to promote new, clean, and energy-efficient technologies for the ground freight industry. Companies participating in SmartWaySM Transport have an opportunity to make important contributions to our nation's efforts to secure greater energy independence, protect public health, and safeguard the environment for future generations.

**FOR MORE INFORMATION, VISIT
<WWW.EPA.GOV/SMARTWAY/TRANSPORT>.**

SmartWaySM Transport participation provides tangible benefits for companies, including:

- Fuel savings.
- Long-term cost savings.
- Business-to-business preference for SmartWaySM Transport partners.
- “Green” image: SmartWaySM Transport preference appeals to environmentally conscious customers.
- Improved business climate due to reduced dependence on foreign oil and increased American energy security.
- Technical and infrastructure support from EPA.



Clean School Bus USA

Clean School Bus USA partners will reduce emissions of particulate matter by 35,000 tons and save up to \$5 billion in reduced health care costs, preventing at least:

- 50,000 incidents of lower respiratory symptoms in healthy children.
- 100,000 incidents of upper respiratory symptoms in asthmatic children.
- 5,000 asthma symptoms in asthmatic children.
- 1,000 asthma-related emergency department visits by children.
- 9,000 incidents of acute bronchitis in children.



The goal of Clean School Bus USA is to reduce both children's exposure to diesel exhaust and the amount of air pollution created by diesel school buses. In this program, EPA and its partners are working to create policies and practices that will eliminate unnecessary school bus idling, encourage the installation of effective emission control technologies, and support the replacement of older, high-emitting buses in the fleet.

More than 24 million children ride safely to school every day on 444,000 school buses, traveling more than 4 billion miles each year. Knowing that school buses provide the safest and most widely used way for children to get to school, EPA and its partners want to help by making school buses cleaner.

Through Clean School Bus USA, school districts, diesel engine and emission control manufacturers, oil refiners, corporate leaders committed to environmental excellence, and many others are working with EPA to leverage resources, develop tax incentives, and offer other kinds of technical assistance and support. The Clean School Bus USA program is using a three-pronged approach that will achieve the following goals:

- Eliminate all unnecessary school bus idling as soon as possible.





- Retrofit all 1991 to 2002 school bus models by 2010.
- Replace 100 percent of all school buses manufactured before 1990 with new clean-technology buses.

These are ambitious goals. Congress included \$5 million in EPA's 2003 budget to establish a cost-shared grant program to assist school districts in upgrading their bus fleets. More than \$20 million will be available for retrofitting public diesel fleets, including school bus fleets, through recent supplemental environmental projects. Supplemental environmental projects are negotiated when EPA and the U.S. Department of Justice settle enforcement actions. Funds that are made available in future settlements may also be applied for retrofitting school buses.



School buses idle, on average, more than an hour per day, using up to 17 million gallons of diesel fuel annually. By developing simple anti-idling guidelines, school districts can achieve significant savings in fuel costs and help keep the air in their communities clean.

At present, more than 100 educators, school transportation officials, health experts, environmentalists, pollution control manufacturers, engine manufacturers, refiners, and corporate leaders have expressed an interest in becoming partners in EPA's Clean School Bus USA initiative. Currently, about 20 school bus retrofit projects are underway nationally, and more than 120 school districts have expressed an interest in participating in a retrofit project.

FOR MORE INFORMATION, GO TO WWW.EPA.GOV/CLEANSCHOOLBUS.

Voluntary Partnerships . . . Making a Difference

Partners in EPA's voluntary transportation and air quality programs are environmental stewards setting an example for others to follow. Their commitment strengthens the environmental performance of vehicles and helps to ensure the most efficient use of our nation's transportation system. The outcome is cleaner air, reduced greenhouse gases, and a better environment for all Americans.

EPA extends an open invitation to all organizations. If your organization is interested in learning more about our voluntary programs, please visit

<WWW.EPA.GOV/OTAQ/VOLUNTARY.HTM>.

Together we can make
America's environment
healthier and cleaner.

Office of Transportation
and Air Quality
U.S. EPA
Mail Code xxxx
1200 Pennsylvania Ave., NW
Washington, DC 20460

EPAxxx-x-03-xxx
July 2003

♻️ Printed on paper that contains at
least 50 percent postconsumer fiber.



These are just some of the Organizations that are Making a Difference...

AMY'S KITCHEN ♦ APPLE COMPUTER
♦ BAL HARBOUR VILLAGE ♦ BAYER
CORPORATION ♦ CANON U.S.A. ♦
CH2M HILL ♦ DUKE ENERGY ♦ D&B
♦ EDDIE BAUER ♦ EMORY UNIVERSITY ♦
FIRST NATIONAL LENDING, LLC ♦ CITY OF
FORT COLLINS, COLORADO ♦ GEICO DIRECT
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