

Clean Air Excellence Award Recipients: Year 2001

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Clean Air Technology

Clean Fuel Buses Program — Metropolitan Transit Authority, New York City Transit Department of Buses; New York City and metropolitan area

The three core elements of New York City (NYC) Transit's Clean Fuel Bus Program include the purchase of hybrid-electric buses, the use of ultra-low sulfur diesel (ULSD) fuel, and the retrofitting of diesel engines. Through these three elements, the Clean Fuel Bus Program has reduced particulate and nitrogen oxide emissions. NYC Transit's commitment to use ULSD and to retrofit the diesel fleet with filters has allowed them to meet air quality regulations five years in advance of EPA requirements.

Locomotive Emission Reduction System — CSX Transportation, Inc.; 48 contiguous states and Canada.

For the rail industry, CSX Transportation, Inc. (CSXT) has designed, patented, installed, and made available a new Auxiliary Power Unit (APU) system. APU use has reduced emissions of nitrogen oxides by 91 percent, hydrocarbons by 94 percent, carbon monoxide by 96 percent, and particulate matter by 84 percent.

Orbital Combustion Process — Orbital Engine Corporation, Inc.; Tecumseh, Michigan.

Orbital Engine Company has developed a combustion process that achieves significant improvements in both fuel economy and emissions capabilities of gasoline engines. Marine and motorcycle customers currently using the Orbital Combustion Process in their two-stroke engines have reduced emissions by at least 75 percent, while increasing fuel economy by at least 30 percent.

Instantly Available PC Technology — Intel Corporation; Worldwide.

Intel has developed the Instantly Available Personal Computer (IAPC), a computer that can be placed into a deep sleep state, but can be "woken up" very quickly when required. With IAPC technology, power consumption when in standby/sleep mode is under five watts, far exceeding EPA'S ENERGY STAR requirements of 15 watts, while still retaining full communications capabilities in sleep state.

Converting Pulp Mill Waste Gases to Useful Chemicals — Lehigh University, Georgia-Pacific Corp., and Gibson Technologies; Brunswick, Georgia.

The treatment of waste products from the papermaking industry (methanol and mercaptans) releases carbon dioxide, sulfur dioxide, and nitrogen oxides into the atmosphere. This new process allows the paper industry to virtually eliminate these sources of carbon monoxide and nitrogen oxides while making profitable commodity chemicals, formaldehyde and sulfur dioxide, from these waste gases.

Community Action

Playa Vista — Playa Capital Company, LLC; Los Angeles, California.

Playa Vista is creating a community where residents will be able to manage their household needs without getting into their cars. It is doing so by designing a balance of housing, office space, neighborhood services, community uses, and open space throughout the project, and interlinking these land uses with bikepaths and pedestrian friendly sidewalks and paths. This unique community design will be enhanced by a hybrid-powered shuttle system connecting all parts of the community.

Hunts Point Cooperative Truck Stop Electrification Project — Con Edison and Clean Air Communities; Bronx, New York.

The Hunts Point Cooperative Market (The Market) is one of the world's largest produce and meat markets. There are approximately 20,000 diesel truck trips into and out of the Hunts Point neighborhood each week, with hundreds of diesel vehicles idling at The Market each day. The truck stop electrification project will allow trucks to connect to an electrical source that will keep heating and refrigeration units running while the truck is turned off. At full operation, the 32-bay project is expected to eliminate 2,300 tons of air pollutants annually.

Education/Outreach

Tour de Sol: The Great American Green Transportation Festival — Northeast Sustainable Energy Association; Northeast U.S.

The Tour de Sol Festival is a unique, year-round public education campaign that culminates in a series of festivals linked by a road-rally competition. The program educates consumers about transportation and environmental decisions. Annually, over 40,000 people attend Tour de Sol festivals, and 50 to 90 million learn about the festivals and transportation options through the media. Clean air solutions are promoted through the festivals, the official program, a public relations campaign, school curricula and workshops, and the Northeast Sustainable Energy Association's web site (<http://www.nesea.org>) EXIT Disclaimer .

Save Planet Polluto — Sacramento Metropolitan Air Quality Management District; Sacramento, California.

Save Planet Polluto is an innovative CD-ROM adventure designed to teach air pollution concepts to children in grades four through eight. *Save Planet Polluto* teaches children that mobile sources are a major source of air pollution and shows them how the choices people make every day can have a positive or negative effect on air quality.

Great Stove and Fireplace Changeout — Hearth Products Association and four regional affiliates; Great Lakes Region.

The Great Stove and Fireplace Changeout was a co-operative public/private program designed to educate residents of the Great Lakes states about the impact of woodsmoke on toxic loading in the Lakes (specifically Benzo(a)Pyrene levels). As part of the program, the Hearth Industry offered a discount to any resident who surrendered an old woodstove or fireplace insert for destruction. According to the 120 participating retailers, over 1,200 old woodstoves and woodstove inserts were removed and destroyed. Results also indicate that 40 percent of the households switched from wood heat to gas and the other 60 percent moved to EPA-certified woodstoves or pellet stoves. The reduction in Benzo(a)Pyrene annual emissions is estimated to be at least 4,870 grams per year.

American Indian Air Quality Training Program — Institute for Tribal Environmental Professionals; Flagstaff, Arizona.

Since 1992, the Institute for Tribal Environmental Professionals (ITEP), based at Northern Arizona University in Flagstaff, has offered air quality management education and support to Indian tribes. ITEP's American Indian Air Quality Training Program provides comprehensive air quality management training through workshops tailored to address tribal needs. ITEP also provides air-management technical support and problem-solving assistance to tribes and is a clearinghouse for tribal air quality data.

Air Adventures Puppet Show and Music Video — North Carolina Department of Environment and Natural Resources-Division of Air Quality; North Carolina.

The North Carolina Department of Environment and Natural Resources created the Air Adventures Puppet Show and Music Video to educate children about ozone and air quality. Throughout the puppet show video, children are exposed to the concepts of air pollution, specifically ozone, and are educated about its effects on people and vegetation. In addition, children are taught common actions that can be taken to reduce ozone formation and are introduced to the Air Quality Index color codes.

TNRCC MeteoStar System — Texas Natural Resource Conservation Commission; Austin, Texas.

The Texas Natural Resource Conservation Commission (TNRCC) MeteoStar System is an automated, quality-controlled environmental data collection and reporting system that displays both near real-time and historical data on easy-to-use Internet Web pages. The MeteoStar System collects air and water quality data every five minutes at monitoring sites located throughout Texas. Several thousand users have subscribed to the MeteoStar e-mail ozone forecast and alert notifications. The System is also used to create and display animated maps that show ozone movement. The simplicity and efficiency of the MeteoStar System has allowed the TNRCC to expand its monitoring network from 32 air monitoring stations to over 150 air and water monitoring stations without added labor costs.

Tally the Toucan Rideshare Education Program — Palm Tran; West Palm Beach, Florida.

Palm Tran, the transit agency that provides bus service for Palm Beach County commuters, has developed the *Toucan Rideshare Education Program*. This Program is designed to teach children from kindergarten through fifth grade about the environment as it relates to public transportation (bus, car pooling, and the train). In spring 2001, the Program gave over 83 presentations to more than 2,000 students in 14 schools. Children learned how public transit affects the environment and how to use public transportation. Partnering with South Florida Commuter Services, the Florida Department of Transportation, and the Palm Beach County School Board, Palm Tran has been successful in teaching potential drivers about the benefits of using public transportation and ridesharing.

Minnesota E85 Project — Minnesota E85 Team; Minnesota.

The private-public Minnesota E85 Project provides motorists a competitive, bio-based gasoline alternative that is better for air quality, the economy, and national energy security. E85 is an alternative fuel blend of 85 percent ethyl alcohol (ethanol) and only 15 percent petroleum. This alternative fuel is designed for use in many new car models, or flexible fuel vehicles, which may fuel on any combination of E85 and/or gasoline. In two years, E85 sales in the state have grown by 600 percent.

Regulatory/Policy Innovations

Indiana Nitrogen Oxides Control Rule — Indiana Department of Environmental Management; Indiana.

The Indiana Department of Environmental Management has incorporated an incentive program in its Nitrogen Oxides Control Rule to encourage clean and efficient sources of power. The program sets aside two percent of Indiana's total nitrogen oxides emissions budget to be awarded annually to new and existing projects that demonstrate leading-edge processes that reduce energy demands. These projects include wind and solar projects, fuel cells, and combined heat and power projects that meet an established efficiency standard.

Diesel Solutions — Puget Sound Clean Air Agency and Partners; Puget Sound Region, Washington.

The Puget Sound Clean Air Agency and its partners developed the voluntary Diesel Solutions program to make diesel vehicles cleaner. Working with EPA's Office of Transportation and Air Quality's Retrofit Team, the partners are using retrofit technologies to reduce fine particle, hydrocarbon, and toxic emissions up to 90 percent.

Merck Project XL — Merck & Co., Inc.; Elkton, Virginia.

Merck, along with the National Park Service, the Virginia Department of Environmental Quality, EPA, and members of local communities developed a simplified air permit for the Merck Stonewall Plant in Elkton, Virginia. This permit establishes a cap on site-wide emissions of total criteria pollutants. The cap is set at 20 percent less than the recent actual level of those emissions. The environmental benefits result from the conversion of the plant's steam generating powerhouse, which formerly burned coal, to natural gas. After the first year of performance, actual emissions have been reduced by over 1,300 tons per year.

City of Los Angeles Energy Climate Action Plan — City of Los Angeles Environmental Affairs Department; Los Angeles, California.

Adopted by the Mayor and City Council in March 2001, the Los Angeles Energy Climate Action Plan demonstrates how Los Angeles will reduce its carbon dioxide emissions by 30 percent from 1990 to 2010, while also lowering its energy costs. The Plan includes strategies to aggressively pursue energy efficiency in City buildings, fleet vehicles, and equipment. The Plan also calls for significantly reducing the City's reliance on fossil-fuel generated power by purchasing renewable resources to meet a portion of the City's electricity needs.

Transportation Efficiency Innovations

Los Angeles to Pasadena Metro Blue Line — Los Angeles to Pasadena Metro Construction Authority; Los Angeles County, California.

The Los Angeles to Pasadena Metro Construction Authority is building a 13.7-mile electrically powered light rail transit system. This system will improve air quality by both reducing commuter congestion from the freeway network and freeing trucks and buses traveling along the same corridor from this congestion. To enhance ridership, the Authority is fostering development at a few of the light rail stations.