

Summary of Air Innovations Conference
Chicago, IL
August 24-26, 2005

Diesel Collaboratives. Programs are coming on-line to address emissions from on- and off-road diesel engines. Programs highlighted included Port of Long Beach, Illinois Clean Construction, Iowa and Mississippi school buses, St Louis and the City of Cambridge Massachusetts diesel retrofit programs. The success of diesel emission reduction programs will be establishment of funding mechanisms. Funding sources may include the Diesel Emission Reduction Act (if enacted), USEPA National Clean Diesel Campaign, Congestion Mitigation and Air Quality (CMAQ) Improvement Program, as well as state programs (New Jersey Diesel Risk Mitigation Fund). Regional diesel collaboratives are also being formed, including one in the mid-Atlantic, coordinated by MARAMA. Presenters also encouraged states to develop economic incentive programs to target reductions using model programs like the Texas Emission Reduction Plan (TERP) and the Carl Moyer Program. Federal officials reminded the group that CMAQ funds can be used for revolving loan programs as well as grants. CMAQ funds can now also be used for off-road engines. The Diesel Emission Reduction Act, if enacted, would authorize \$200 million per year from 2006-2011 for diesel projects.

Performance Contracting. Performance contracting approaches that required pollution control are expanding. New York City, Chicago, and others are putting in place contracting requirements that will mandate emission reduction during major construction projects (e.g., airports expansion and highway redevelopment in Chicago, southern Manhattan island construction). Also discussed was the need for assessing performance contracting authority, particularly as it relates to municipalities' ability to hire Energy Service Companies (ESCOs) to improve energy performance at government facilities.

Energy Efficiency. Continued expansion of energy efficiency programs was strongly encouraged. Some approaches identified included LED traffic signals, ground source heat pumps, centralized cooling water systems, and plug-in hybrids. Increased attention to energy efficiency for schools and public housing was encouraged. Approaches such as shifting load to nighttime hours were highlighted as a way to reduce emissions during peak ozone formation periods. Recently developed spreadsheet tools were discussed, including one from Texas A&M University that allows users to calculate creditable NO_x reductions.

Renewables and Green Power. Increasing supply of renewable energy was promoted. The recent Energy Bill offers opportunities for continued expansion of new renewable generation through continuation of the Producer Tax Credit (PTC). Wind turbines and solar photovoltaics were highlighted as technologies that continue to experience market growth. Fuel cells and wave/tidal power generation still require further development. North Carolina's third party Green Power initiative managed by Advanced Energy was highlighted as a successful statewide program to increase green power supply. Presenters encouraged continued development of programs to give renewable energy generators better access to the grid, especially in locations like the upper midwest. States need to enact NO_x set asides to enable SIP credit for Energy Efficiency and Renewable Energy (EERE).

Smart Growth. Smart growth planning was highlighted as a viable way to reduce mobile emissions. Sacramento California's Blueprint, Denver Downtown Revitalization, Moab Utah, Salt Lake City, Arlington County, Virginia, and Portland Oregon were highlighted as jurisdictions with successful Smart Growth programs. Bus corridors, car sharing, bicycle facilities, pedestrian enhancement, light rail, urban growth boundary, farm protection zones, and activity clusters were discussed as approaches that can reduce emissions. Urban heat island

mitigation was also suggested as a way to reduce pollution levels. Truck stop electrification projects are underway.

Biodiesel. Biodiesel was discussed. Use of biodiesel is being used successfully in some locations to reduce PM emissions from the mobile sector. 100% biodiesel, or a mixture of biodiesel and diesel can be used. Biodiesel can also be used as home heating oil, providing both PM and NOx benefits. States at the conference actively developing biodiesel markets include New Jersey for stationary sources and Iowa for school buses.

Woodstoves. Some regions, such as Allegheny County, Pennsylvania, and Puget Sound, are attempting to address PM2.5 problems through wood stove change-out programs. Some regions noted that outdoor wood boilers are a growing concern.

Airports. New aviation technology was identified. One aircraft technology is being promoted to FAA that involves an electric motor installed on the wheels to drive the aircraft on the ground. Another is use of fuel pressure to power a small battery generator on the fuel carts.

Remote Vehicle Exhaust Inspection. Portland Oregon is experimenting with remote unmanned vehicle exhaust inspections to facilitate handling growth in demand for inspections during re-registration. A device is sent to vehicle owners that allows them to use one of a series of inspection sites that document vehicle emissions for use in the registration process.

Fleet Management. Portland Oregon is attempting to convert all municipal fleets to "flex-car." Purchase of alternative fueled vehicles, in particular hybrids was encouraged to reduce emissions from state and local fleets.

Grants for Innovative Measures. There are two \$50,000 grants available to demonstrate innovative measures. Proposals are due September 30th, 2005.