

Air Quality Improvement Innovation ideas

1. Upgrade traffic signal system to reduce local traffic congestion and air pollution.
2. Purchase hybrid electric transit buses.
3. Retrofit refuse collection trucks to collect two separate materials in a divided truck body with only one pass through each neighborhood.
4. Low-Maintenance Landscaping Designs that may be implemented by property owners to reduce emissions from gasoline powered lawn-maintenance equipment.
5. Target technical assistance efforts and a public recognition/award program at companies that reduce volatile organic solvent use by a minimum of 5 percent.
6. Install diesel oxidation catalysts on long-haul tractor-trailer trucks. These diesel oxidation catalysts would be an incentive to truck drivers that install auxiliary power units on their trucks, which would reduce idling emissions of NOx, CO, CO₂, hydrocarbons and PM by 75% and operating diesel particulate emissions by 30 to 40%.
7. Provide emissions testing services to school bus fleets to allow school bus fleet operators to target high-emitting buses for repair and maintenance, thereby lowering diesel emissions and associated impacts to children who ride these buses. Testing service could be offered free of charge by a CAF partner.
8. Increase energy efficiencies by purchasing and distributing compact fluorescent light (CFL) bulbs to citizens through outreach efforts. This project will develop education materials on energy issues, increase awareness and comfort level with a new technology (CFLs), and highlight the economic and environmental benefits of energy conservation.
9. Three part program:
 - A. Partner a gas cap emissions testing, emissions education and cap replacement event with auto stores, develop radio announcements to draw the public to participating vendors/locations throughout the area. Replacement caps will distributed free for those warranted. Answer a brief survey and enter into a drawing for a free oil change.
 - B. Partner with a local senior healthcare event to host a gas cap wrench event where wrenches will be distributed free along with educational material regarding the benefits of a tight gas cap.
 - C. Distribute Green Drivers educational materials to new youthful drivers as they receive their license and informing them of the benefits of tight gas caps.
10. Develop a comprehensive air quality media campaign combining environmental and media education by involving public school classrooms and after-school students in creating educational videos and a website about air quality issues.
11. Pilot a free, trade-in program of older PFC's (gas cans) for CARB compliant PFC's to reduce emissions and spills. The pilot project has two objectives :
 - A. increase consumer/public awareness of air pollution and LE containers.
 - B. jump start the introduction of LE fuel containers while removing up to 3,500 older, less efficient and higher polluting fuel containers. Use program to leverage support from local

businesses (e.g., Home Depot or Lowes) acting in conjunction with local groups to advertise a PFC exchange building upon local Clean Sweep hazardous waste collection days.

12. Seek grants to retrofit municipal diesel powered dump trucks with oxidation catalysts (OC) and crankcase ventilation filtration (CF) devices. Reduces emissions and exposures of sensitive individuals in a population center with lung dysfunction, increases public education awareness and helps maintain/attain all NAAQS and protect the quality of life for residents.
13. Replace small engine spark plugs to meet new performance standards (e.g., Pyrotek technology), improve combustion efficiency of the improved spark plug science results in an average VOC emission reduction of 12% in lawn and garden engines (average of two and four stroke engine samples). This would equate to a X ton per day reduction in VOCs depending on market penetration and accelerate the spark plug replacement cycle.
14. Compact fluorescent light bulbs (CFLs) replacement program to convey the environmental and economic benefits of energy efficient appliances, such as CFL light bulbs by providing program participants with a free CFL bulb. Bulb consumers will be introduced to the benefits of an energy efficient environmentally friendly product through informational materials received with the free CFL bulb. Locations targeted for general consumers (e.g. state and/or county fairs or partnered "giveaways" with local retail establishments).
15. Develop a diesel emissions reduction toolkit focused on a plan to reduce emissions using a comprehensive metropolitan area approach. The goal is to reduce diesel emissions from on-road and off-road fleets by creating a collaborative group of stakeholders including industry, NGO's, local governments, health departments, Chambers of Commerce, air officials and fleet managers. The toolkit as a comprehensive approach to incorporate diesel emission reduction strategies could be an element of the state implementation plan.
16. Develop a Greener Choices program linking air pollution with solid waste through an informational campaign to consumers, businesses, and local governments. The project would educate consumers and purchasers on wiser purchasing options, maintenance, and proper disposal of discarded materials. Greener Choices would improve air quality, reduce fuel consumption and increase landfill capacity.
17. To minimize diesel emissions from the highest emitting non-road category equipment. Require purchasing agents and contracts to request catalytic diesel emission reduction devices to mitigate the air quality impacts of construction projects, particularly for projects close to sensitive receptors. The project would use grant funds to provide catalytic diesel emission reduction devices to local construction companies.
18. Develop a cross-divisional (air, water, hazardous and solid waste and sustainability) and cross agency toolkit to reduce emissions from autobody shops. This pilot project could increase compliance and move an entire sector towards compliance and environmental leadership. This project would develop a streamlined Environmental Management System (EMS) for small businesses with application to autobody shops nationally and possibly to other small businesses. This project would create a curriculum for trade schools and autobody shops with a focus on compliance and pollution prevention techniques. The EMS, compliance checklists, educational modules, pollution prevention and control technologies could be used together or separately to assist federal, state or local agencies.