

Green Your Fleet

How to adopt a comprehensive green fleet policy

A report from ICLEI: Local Governments for Sustainability USA

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In cities and counties everywhere streets are swept, neighborhoods patrolled and important business conducted every day with vehicles owned by local governments. Maintaining a vehicle fleet is a key component of local governments' operations. Operating a fleet of vehicles comes at a price, however. Beyond the monetary cost, fleet vehicles represent a significant source of air pollution. Also, every gallon of fuel burned releases about 22 pounds of carbon dioxide (CO₂), the major pollutant causing global warming.

Fleets can play an important role in reducing global warming and air pollution emissions.

What to Do:

1. The first step is to document the impact of fleet activities by conducting an inventory of fleet vehicles, including the types of vehicles, how many there are of each type, and the type and amount of fuel that they use.
2. Once the fleet has been characterized, realistic goals can be set and measured. Goals should be set for reducing energy use, criteria air pollutants, and carbon dioxide emissions for the fleet.
3. There are many cost effective and practical measures that can "green" your fleet. Implemented wisely, the actions taken will not adversely impact the day-to-day operations of local government. In fact, many actions will result in significant savings. Measures include:
 - "Right-sizing" vehicle fleets by downsizing and eliminating vehicles.
 - Optimizing vehicle travel, operation, and maintenance.
 - Substituting other travel modes, or reducing the need to travel.
 - Purchasing fuel efficient, alternatively fueled, and electric vehicles.

8 Steps to Green Your Fleet

1. DOWNSIZE VEHICLES

Does a building inspector need to drive a full size sedan? Probably not, but in many local governments sedans are still the vehicle assigned to staff, regardless of how appropriate the vehicle is to the duties that they perform. Matching duty requirements of staff to the smallest possible vehicle for the task is a critical component of a Green Fleets program. Smaller vehicles should be substituted for larger vehicles by phasing them in as new vehicles are purchased or by selling larger vehicles.

Example: By purchasing 150 compact cars instead of larger sedans, Metro-Dade County, Florida, reduced its fleet CO₂ emissions by 600 tons a year.



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2. OPTIMIZE VEHICLE USE

The manner in which fleet vehicles are used for travel in your city or county is a key determinant of the fleet's overall efficiency. Most importantly, schedule travel efficiently so that multiple tasks can be accomplished with one trip. With proper planning, staff should also be able to share vehicles for all or part of a trip. Software especially designed to optimize fleet vehicle routes can also be used to achieve large reductions in fuel use and emissions.

Example: Route optimization for solid waste trucks in Toronto, Ontario, is saving 140,000 gallons of fuel and reducing CO2 emissions by 1,500 tons a year.

3. INCORPORATE EFFICIENCY INTO BID SPECIFICATIONS

Including a minimum fuel efficiency standard for each vehicle class in procurement specifications results in only the most fuel-efficient vehicles being purchased. Specifications can also be written so that the smallest and most efficient vehicle in its class is purchased. If life-cycle costing is used, the cost of fuel should be weighted heavily so that fuel savings accrued over the life of the vehicle are sufficiently taken into account.

Example: Vehicle specifications in Louisville, Kentucky, are based on the minimum power needed for a task, resulting in the purchase of smaller vehicles.

4. MAXIMIZE EFFICIENCY

A simple but important step that any city or county can take to improve the efficiency of its fleet is to ensure that regular maintenance is performed on its vehicles. Oil should be changed regularly and tires should be kept at the correct pressure at all times. Vehicles need to be operated in the correct manner as well. Employees should receive driver training and be awarded incentives for driving efficiently. Finally, establishing a policy against idling vehicles is a key component of a Green Fleets program.

Example: Edmonton, Alberta, increased average fuel economy by 20% by coaching employees on fuel-efficient driving.

5. ELIMINATE FLEET VEHICLES

In many cases cities and counties have more vehicles than they need in their fleets. By analyzing the operational needs of your fleet, and eliminating excess vehicles, non-critical trips will be discouraged and alternative forms of travel encouraged. Eliminating fleet motor vehicles in favor of bicycles can have substantial advantages as well. Employees can use bicycles for local trips. Moreover, putting police officers on bicycles offers crime enforcement advantages and substantial savings, as well as emission reductions.

Example: The police department in Dayton, Ohio, is saving 2,700 gallons of gasoline and 7.5 tons of CO2 a year by using bicycle patrols instead of police cars.

6. BUY VEHICLES THAT RUN ON ALTERNATIVE FUELS

After "right-sizing" your fleet, larger vehicles will still be needed for many tasks. Because fuel efficiency gains are more difficult with medium- and heavy-duty vehicles, they are good candidates for the use of alternative fuels. However, not all fuels provide equal greenhouse gas and air quality emissions benefits. For this reason, consider using fuels such as compressed natural gas (CNG) or propane (LPG).

Example: One out of every three vehicles operated by Fort Collins, Colorado, runs on propane, resulting in a reduction of 140 tons of CO2 per year.

7. USE TRANSIT, BIKE, WALK, OR TELECOMMUTE

Is it necessary to drive to that meeting? Often the answer is no. Fleet vehicle usage can be substantially decreased if employees use other modes of travel. Depending on the distance; transit, a bicycle, or walking normally will suffice. Employees should be provided with transit passes and reimbursed when using transit or bicycles to travel for business reasons. Another option is to avoid travel altogether by using email, phone, or video technology to accomplish tasks by telecommuting.

Example: By using advanced technology video-conferencing for its criminal justice department San Francisco, California, is reducing 300 tons of CO2 per year.

8. GO WITH ELECTRIC DRIVE

Vehicles with electric drive trains will likely replace internal combustion engine vehicles in the future. Electric vehicles (EVs) powered by batteries and gasoline-powered generators (hybrids) are already available. These vehicles are appropriate for many tasks and, especially in the case of battery powered EVs, result in a substantial reduction in CO2 emissions. Fuel cell vehicles powered by hydrogen are even better and are just beginning to become available. The only emission from these vehicles is water!

Example: Chicago, Illinois, is operating three transit buses that are powered solely by hydrogen fuel cells.

