High Efficiency Vehicles for Municipal Fleets

In a Nutshell

Municipal fleets provide important services to citizens and account for a significant chunk of a city or county's operational budget. Powering these fleets is not only a costly endeavor monetarily, but it can also affect communities' air quality. Implementing **high efficiency vehicles** into a municipal fleet can provide for long term cost savings and reduce the amount of carbon dioxide (CO2) released into our air.

The “How To”

“Green Fleet” measures include switching municipal fleets to high efficiency vehicles as well as other ways to crate energy savings and reduce environmental impacts. The following steps are recommended:

First, the city or county should collect data to measure the impact of their current fleets. This should include an inventory of vehicles (type, number) and type and amount of fuel they each use.

Second, once the performance of the fleet is known, realistic goals can be set for your city or county. For example: Reduce energy use and carbon dioxide emissions by a certain percentage by a certain year.

Third, explore implementing the following measures to reach your goals:

- “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

Finally, to implement your chosen measures, adopt a comprehensive fleet policy.

In addition to the measures listed above, the EPA provides ways for fleets to increase efficiency here. These include:

- Employ a “right vehicle, right job” approach
- Encourage fleet scrapping and replacement with fuel efficient vehicles
- Partner with a private company to supplement fleet vehicles
- Coordinate with municipal facilities to improve fleet operations
- Eliminate unnecessary idling

Planning & Zoning

St. Louis County and the City of St. Louis have begun converting their municipal fleets to zero-emission electric vehicles (EVs). In March 2021, Mayor Krewson signed Executive Order #68: Priority Procurement of Clean Municipal Vehicles to institutionalize the practice of purchasing clean vehicles for the municipal fleet. At the end of November 2022, St. Louis County unveiled its first municipal EV and pledged to convert 27% of its light-duty fleet to EVs by 2027. Estimates suggest each EV will save the county nearly $10,000 in fuel alone over its five-year lifetime. The City of St. Louis and St. Louis County will evaluate each gas-powered fleet vehicle and replace it with an EV when it reaches the end of its lifecycle.

Missouri Revised Statutes 414.407 describes the creation of "the 'Biodiesel Fuel Revolving Fund,' into which shall be deposited moneys received from the sale of EPAct credits banked by state agencies on August 28, 2001, and in future reporting years, any moneys appropriated to the fund by the general assembly, and any other moneys obtained or accepted by the department for deposit into the fund...Moneys deposited into the fund shall be used to pay for the incremental cost of biodiesel fuel with a minimum biodiesel concentration of B-20 for use in state vehicles and for administration of the fund."

Dollars & Cents

Ontario Canada implemented a fleet challenge program designed to help municipal fleet managers reduce emissions and operational costs by applying fleet management tools and techniques as described by their E3 (Energy Environment Excellence) fleet review and best practices manual. Participating municipalities saw varying cost-savings, but some of the most common are as follows:

- Converting vehicle fleets to clean burning or renewable fuels, and the use of high-efficiency vehicles like hybrids reduces emissions and can reduce costs.
- Thorough route planning and load-sharing can reduce fleet mileage.
- Downsizing and right-sizing the fleet to meet the true needs of the municipality.
- Manufacturer’s recommended vehicle maintenance is often easy and simple, as well as improves fuel efficiency and reduces excess emissions.
- Reducing vehicle idling can reduce fuel consumption and thereby decrease emissions.
- Driver training can improve fuel efficiency, reduce emissions, prevent accidents and save on insurance costs.
- Relocation of staff and resources can allow for reduced vehicle use and costs.
- Encouraging travel by public transit, rather than by municipal vehicles, can reduce mileage and fuel usage.

Discover More

The EPA provides links to resources including associations and partnerships, alternative fuels, data center and guides, and calculators and models.

The Environmental Defense Fund offers a Fleet Electrification Solution Center, which provides a guide fleet managers can follow when electrifying their vehicles.

Case Studies

Arnold Missouri Green Fleet Policy

Description

Arnold, Missouri, implemented a green fleet policy to improve energy efficiency and reduce emissions of its fleets.

Cost $0