

**SUBJECT: POLICY FOR THE ACQUISITION OF ENERGY EFFICIENT AND SAFE
VEHICLES**

Purpose: In keeping with the City's vision and commitment of creating an ecologically, socially and economically sustainable green capital city, all vehicles purchased by the City of Madison will meet or exceed certain standards for energy efficiency, emissions and safety.

Background: As a service provider, the City of Madison has a huge impact on the environment, the economy and our community. Because the City is both steward of the environment and a consumer its resources, it must incorporate the principles of sustainability to ensure that our current and future needs can be satisfied.

Using *The Natural Step* sustainability framework, the City is working to enhance the sustainability of its facilities and operations by reducing its consumption of fossil fuels and other materials extracted from the Earth, reducing its dependence on synthetic and persistent chemicals, and mitigating its impact on physical ecosystems. Because our community will not be truly sustainable unless our residents are healthy, safe and prospering, the City will continue to pursue policies and actions that minimize the barriers that get in the way of residents' ability to meet their basic needs. The City also intends to lead by example.

Vehicles consume large amounts of energy, demand many resources to produce them and have an environmental impact at the end of their life. City fleet vehicle emissions including CO₂, carbon monoxide, NO_x, and particulates should be minimized due to their negative impacts on the environment and human health. Further, work place safety and productivity are affected by vehicles used by City employees.

Goal: The overall goal of this policy is to ensure that the vehicles acquired by the City are sufficient to meet the needs of the user, minimize negative impacts on the environment, and are safe to operate. Key elements in these considerations are:

- Life cycle cost
- Environmental impacts
- Reliability and performance
- Safety

As it relates specifically to fuel consumption, the goal of this policy is to reduce the amount of fuel consumed by City vehicles on a per dwelling unit basis by 20% by 2020. Using a per dwelling unit comparison helps account for increases in service demand as the city grows.

The baseline for this comparison is 1.90 gallons per dwelling unit per year. This baseline represents the two-year average of fuel consumed on a per dwelling unit basis for vehicle types subject to this policy from May 1, 2007 through April 30, 2009.

Scope: This policy shall apply to commercially available vehicles that are ¾-ton or smaller. Examples include passenger cars, small- and mid-size pickup trucks, and vans.

This policy shall apply to all new vehicles in this category with purchases initiated after June 30, 2009. This policy applies to vehicles acquired or serviced by Fleet Service and vehicles acquired and used by Water Utility, Metro Transit, Sewer Utility and Stormwater Utility. Exemptions are described below.

These purchasing guidelines are intended to compliment other formal and informal policies and practices under the City's broader Green Fleet initiative, including:

- Maintaining vehicles to optimal levels to ensure fuel efficiency and low emissions;
- Implementing and monitoring compliance with the City's anti-idling resolution (adopted July 2007);
- Reviewing data collected from GPS/AVL (global positioning system/automatic vehicle locator) systems to optimize vehicle use;
- Eliminating older vehicles or those that are used infrequently;
- Reviewing the use of Fleet vehicles assigned to City staff every year to determine whether certain vehicles can be eliminated from service;
- Utilizing software and reports to monitor vehicle usage and optimize service routes;
- Monitoring by the Mayor's management team of monthly fuel consumption and costs at the agency level;
- Considering and experimenting with alternative fuels and bio-fuel blends like ethanol, bio-diesel and waste vegetable oil;
- Considering and experimenting with alternative technologies like hybrid, electric and fuel cell vehicles; and
- Selecting environmentally preferred maintenance, repair and operational supplies.

Policy:

Needs Assessment. A needs assessment is performed to determine which needs a vehicle has to fulfill based on the work to be performed. The following vehicle categories will be considered.

- **City Car:** Driving with up to four people within the city and Dane County with little equipment or material to transport (EPA category: small car), employs front wheel drive.
- **Long Distance and Transport Car:** Driving with up to four people on the interstate with moderate luggage or material amounts to transport (EPA category: station wagon), employs front wheel drive.
- **Off Road Car:** Like City Car and driving off road (i.e., at construction sites) on a daily basis (EPA category: SUV), employs all wheel drive.
- **Minivan:** Driving with up to six people and equipment (EPA category: Minivan).
- **Van:** Driving with up to 12 people (EPA category: Van).
- **Pickup Truck:** Transporting material that is too large or dirty for transport car (EPA category: Pickup Truck).

- **Off Road Pickup Truck:** Transporting material that is too large or dirty for transport car and is frequently off road (EPA category: Pickup Truck), employs all wheel drive.
- **Heavy Duty Pickup Truck:** Transporting material and used as a snowplow (EPA category: Pickup Truck), employs all wheel drive.
- Any agency requesting a vehicle larger than the City Car category must justify frequent need of such. This applies to initial purchases and replacement vehicles.

Minimum Performance. All vehicles are to be equipped with Anti Locking Brakes (ABS), airbags, automatic transmission, and air conditioning.

All vehicles must meet minimum fuel efficiency, air pollution and safety criteria listed below.

	City Car	Long Distance & Transport Car	Off Road Car	Minivan	Van	Pickup Truck	Off Road Pickup Truck	Heavy Duty Pickup Truck
2008 EPA mileage City/Hwy	27/34	21/27	20/26	21/27	15/20	19/25	17/22	15/20
2008 EPA Air Pollution Score for California	6	6	7	6	6	6	6	6
Additional features required		Rear Disc Brakes	- Rear Disc Brakes - Vehicle Stability Control	Rear Disc Brakes	- Rear Disc Brakes - Vehicle Stability Control	- Rear Disc Brakes - Vehicle Stability Control	- Rear Disc Brakes - Vehicle Stability Control	- Rear Disc Brakes - Vehicle Stability Control
NHTSA Frontal Star Rating Driver/Passenger	5/5	5/5	4/5	5/5	5/5	5/5	5/5	5/5
NHTSA Side Star Rating Front/Rear	5/3	5/5	5/5	5/5	5/5	5/5	5/5	5/5
NHTSA Rollover Star Rating	4	4	3	4	3	4	4	4
IIHS Frontal Impact Overall Evaluation	Good	Good	Good	Good	Good	Good	Good	Good
IIHS Side Impact Overall Evaluation	Good	Good	Good	Good	Good	Good	Good	Good

Special Considerations. Hybrid models will be purchased if they prove to be cost effective and satisfy agency needs assessments. A large part of this analysis is the initial purchase price, fuel prices, cost of maintenance, and the number of miles likely to be driven.

Vehicles larger than the above categories, diesels, buses and large special service vehicles will be judged on a case-by-case basis based on a combination of factors including annual fuel consumption, fuel efficiency, safety, emissions and total cost.

Maintenance Performance and Quality. All vehicles must have low maintenance cost. Minimum features (under normal driving conditions) are:

- Manufacturer recommended oil change interval greater than 7,500 miles; and
- Manufacturer recommended replacement of spark plugs interval greater than 60,000 miles.

Exceptions. This policy applies only to vehicles that are commercially available and 3/4-ton or smaller. Exceptions can be made if no commercially available vehicle can meet the criteria. The commercially available vehicle closest to meeting the specifications will be chosen.

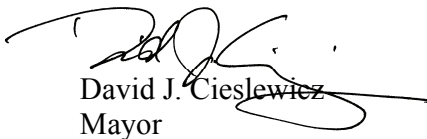
Special service vehicles (e.g., police and fire vehicles) are exempt until vehicles meeting the needs of the Madison Police and Fire Departments and meeting the above requirements become commercially available.

Metro Transit buses are exempt from this policy. When acquiring buses, Metro Transit will continue to use four broad categories to evaluate its purchases. They are:

- design quality (engine and transmission, electrical systems, weight, turning radius, corrosion and body protection, etc.);
- human factors (driver ergonomics, accessibility, passenger capacity, hip-to-knee room in the seating diagram); and
- aftermarket support; and
- price.

Implementation. Application and enforcement of this policy will be at the discretion of the Fleet Service Manager, Water Utility General Manager, Metro Transit General Manager and City Engineer. Compliance with this policy and progress toward the goal will be the subject of quarterly meetings with the Mayor and the Fleet Service Manager, Water Utility General Manager, City Engineer and Metro Transit General Manager.

A summary of agency fuel consumption will be prepared by Fleet Service will be available at these quarterly meetings. For agencies that exceed the prior year's comparative quarterly consumption by 20%, a description of contributing factors and an action plan (if appropriate) must be provided to the Mayor's Office and Fleet Service.


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Mayor

APM No. 4-9
July 13, 2009

Original APM dated 7/03/2009