CITY OF MINNEAPOLIS
GREEN FLEET POLICY

City of Minneapolis

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I. INTRODUCTION

PURPOSE & OBJECTIVES

This policy defines and documents the process for purchasing, oversight, operation, and management of the City's diverse vehicle fleet, which includes both vehicles and heavy equipment. As such, this policy covers all Departments and Divisions under the City Council that have vehicles or metered equipment that operate on gasoline, diesel, electricity, or other types of fuel or energy.

This policy sets guidelines to minimize greenhouse-gas (GHG) emissions of current and future fleet vehicles. Implementation of this policy will help the city meet its GreenPrint goals while reducing the short- and long-term costs of purchasing, maintaining, and operating city vehicles.

The overall objectives of this policy are to:

1. Inventory and report fleet-wide GHG emissions.
2. Optimize the fleet size, by eliminating or reassigning un- or under-used vehicles while promoting car-pooling across departmental lines.
3. Encourage and educate city staff in eco-driving best practices (*e.g.*, reduced idling).
4. Reduce tailpipe emissions (*e.g.*, through advanced emissions controls).
5. Purchase, when necessary, new vehicles that provide the best available net reduction in vehicle fleet emissions, considering life-cycle economic and environmental impacts (*e.g.*, by purchasing more efficient or alternative fuels vehicles)[1].

OVERSIGHT: THE GREEN FLEET TEAM

The Green Fleet Team shall oversee refinement and implementation of the Green Fleet Policy. The Green Fleets Team shall be composed of representatives from:

1. Fleet Services Division
2. Environmental Services
3. Sustainability Initiative
4. Selected rotation of Using Departments

A primary function of the Green Fleet Team will be to monitor purchasing of City vehicles, metered equipment, and sustainable maintenance products and services in accordance with the goals and objectives of the Green Fleet Policy. Progress toward these goals shall be measured against the Base Year. Beginning in 2011, the Green Fleet Team shall present annual reports of findings and progress to the City of Minneapolis Environmental Coordinating Team and to Results Minneapolis.

The Green Fleet Team will recommend acceptable initial incremental costs for improved environmental performance based on fuel savings and emissions reductions over the service life of a vehicle. The Green Fleet Team will conduct comprehensive life-cycle cost analyses (including fuel, maintenance, and operational costs, as well as factors specific to emergency vehicles) prior to purchasing fleet replacements or additions. The corresponding bid process will

[1] See “Exemptions” (pg 7) re: emergency vehicles.

reflect this analysis. In addition, the Green Fleet Team will pursue funding from external sources, such as regional, state, and federal grants, to offset any incremental initial costs.

II. ESTABLISHING A BASELINE INVENTORY

The City of Minneapolis will establish and maintain an inventory of the vehicles in its fleet. The inventory will also be used for the City's broader GHG-reduction initiatives and to monitor specific emissions parameters that have been captured since then.

The baseline year for the inventory and for the Green Fleet Policy will be Fiscal Year 2005.

The City's Director of Fleet Services Division shall develop this baseline inventory. The Director will thereafter provide updated inventory information on an annual basis, in a reliable and verifiable manner, to the Green Fleet Team and the Environmental Coordinating Team.[2]

The baseline inventory metrics should include, for each vehicle class and fuel or energy type the following information:

1. Number of vehicles.
2. Annual miles driven (or annual hours of metered equipment).
3. GHG emissions (*i.e.*, carbon dioxide equivalent).
4. Non-GHG tailpipe emissions (*i.e.*, EPA criteria pollutants).
5. Quantity of fuel consumed by fuel type.
6. Cost of fuel consumed by fuel type.

Thus, the baseline inventory will include the above Metrics 1 – 6 for each vehicle class rating for City of Minneapolis on road fleet or metered-equipment class, and fuel or energy type, including but not limited to:

1. Gasoline
2. E-85
3. Diesel
4. Biodiesel
5. Compressed natural gas
6. Electricity (*i.e.*, kWh taken from the grid)

This information will allow the Green Fleet Team to derive or request additional relevant information, including each of the above Metrics 1 – 6 for the City's fleet

[2] See "Annual Reporting" (pg 8) for additional information.

(calculated by summing each metric across all classes of vehicles and metered equipment) or on an average per-vehicle basis (calculated by dividing Metric 1 into Metrics 2 – 6).

III. IMPLEMENTATION STRATEGIES

OPTIMIZE FLEET SIZE

The Fleet Services Division will provide utilization reports to the Using Departments and make recommendations about possible fleet reductions including using alternative transportation modes.

Replacement Vehicles

Replacement vehicles will achieve the greatest level of emission reductions possible while still meeting the operational needs of the City and being cost-effective. Alternative fuel replacement vehicles should be procured only when there is fueling infrastructure in place at City operated or local commercial fueling stations to support the operation of these vehicles.

1. The City shall make every effort to obtain the vehicles that are the most efficient and emit the lowest pollutants as possible as measured by available emissions certification standards and those published by the manufacturers:

    a) Light Duty Vehicles: The City shall purchase or lease only models of passenger vehicles and light duty trucks that are U.S. EPA Smartway certified, where service levels are not negatively impacted.

    b) Medium Duty Vehicles: The City shall purchase or lease only Medium Duty Vehicles whose engines are EPA certified as low-emission when available for the given application and where service levels are not negatively impacted.

    c) Heavy Duty Vehicles and Equipment: The City shall purchase or lease only Heavy Duty Vehicles or Equipment whose engines are EPA certified as low-emission, when available for the given application and where service levels are not negatively impacted.

2. Emission and GHG-reduction targets shall be reviewed initially on an annual basis, using the current and future EPA formula, by the Green Fleet Team and modified based on vehicles available for that model year and anticipated fleet purchases. Once a meaningful baseline measurement is established, three year and five year target goals will be

identified. Updates on target progress will be reported annually or at more-frequent intervals as determined by the Director of Fleet Services.

3. Vehicle purchase requests shall be reviewed and minimum emission reduction targets will be employed when possible. Fleet Services Division will work with Using Departments to identify the most fuel-efficient vehicle with maximum emission reduction available that can meet the operational needs of the department, while taking into account the vehicle life-cycle costs and fuel availability.

4. Request for exemptions to the Green Fleet Policy shall be submitted in writing to the Fleet Services Division. The Director of Fleet Services Division will determine if there is sufficient justification to award an exemption.

Reduce Vehicle Size

Encourage the selection of vehicles of a smaller class size whenever possible in order to achieve increased miles per gallon and lower emissions. Requests for new vehicle purchases must be supplemented with written justification addressing the need for a class or type. Fleet Services Division shall work with the Using Departments to determine whether a proposed vehicle could be downsized and still fulfill its required function within the department.

Increase Use of Alternate-Fuel Vehicles and Equipment

1. Alternate-Fuel Vehicles and Equipment will be considered for procurement, when appropriate to the application, as new environmentally - friendly technology becomes available that fits the organizational need and the life-cycle cost analysis demonstrates the procurement and utilization of the vehicle to be economically feasible.

2. Fuels with lower emissions (such as compressed natural gas, ethanol, electricity, and biodiesel) shall be used when feasible. Vehicles using these fuel types will be strongly considered when evaluating vehicle replacement.

3. Fleet Services Division shall provide a summary list of alternative fuel vehicles (by fuel type) in the City's fleet to the Environmental Coordinating Team as part of its Green Fleets Annual Report.

Vehicle Maintenance

1. Emission systems shall be inspected annually as part of the Fleet Services Division Preventive Maintenance program.

2. Environmentally friendly products, such as recycled coolants and re-refined oils, shall be used where available when cost effective and when it will not void the manufacturer's warranty. Re-treaded tires shall be purchased for large-wheeled or slow-moving vehicles, when applicable.

Operation of Alternate-Fuel Vehicles

All alternate-fuel vehicles owned by the City of Minneapolis shall bear notice of the type of fuel source to be used in one or more locations that are plainly visible to the vehicle operator.

Reducing Other Environmental Impacts of Vehicles

In addition to tailpipe emissions, motorized vehicles and equipment may have other negative environmental impacts that can occur in their production, operation, and eventual disposal. Radiator fluids and other substances used in vehicles can have harmful consequences for the environment. Of particular concern are persistent, bio-accumulative, and toxic materials such as mercury, lead, and arsenic, which can be released at the end of the life of a vehicle. When possible Fleet Services Division will continue to reduce the life cycle environmental impacts of the vehicles.

City vehicles that are identified for retirement shall be evaluated on age, mileage, and emissions in order to determine the most appropriate disposal option in accordance with Federal, State, City, and Local rules and regulations.

IV. IMPLENTATION PRODEDURES

The Director of Fleet Services Division is responsible for performing the analysis and making decisions regarding vehicles that are most appropriate for the city to purchase, with input from the Using Department. The Fleet Services Director will base the decision for a new or replacement vehicle on the purchasing values described below. While consideration will be given to the type of vehicle requested by the Using Departments, Fleet Services Division will exercise its authority to purchase vehicles that follow the City of Minneapolis Green Fleet Policy and the desire to create a more fuel efficient, cost-effective, and environmentally responsible city fleet.

GUIDELINES

Prior to the acquisition of any new or replacement vehicle, the following purchasing values will be considered and carefully examined:

- Justification for the vehicle
- Frequency of use (utilization)
- Suitability for intended job
- Fuel efficiency and vehicle size
- Environmental impact
- Initial and long-term cost
- Safety and repair record
- Impact on technicians workload
- Hybrid or alternative fuel vehicle availability or preference

Fleet Services Division shall make every effort to purchase and use the lowest emission vehicle or equipment item possible, while taking into account the vehicle's lifecycle costs, life cycle environmental impacts, and ability to support City of Minneapolis operation and services.

EXEMPTIONS

Fleet Services Division may grant an exemption from the requirements of this Policy under any one of the following circumstances:

1. Where the analysis demonstrates to the satisfaction of Fleet Services Division of the following:

    a. That any amortized additional incremental cost of purchasing a lower emission vehicle that complies with the requirements of this Policy cannot be recovered over the operational life of the vehicle or metered equipment through a reduction in fuel, maintenance, and other costs incurred during the operating life of such vehicle or equipment; and

    b. That Fleet Services Division, or another City department, has unsuccessfully applied for grant funding for the purchase of the vehicle or motorized equipment that complies with the requirements of this policy. In such cases, Fleet Services Division will refer back to "a".

2. New emergency vehicles purchased under this Policy must provide comparable performance, safety, and fuel availability during emergencies as conventionally powered emergency vehicles.

NEW VEHICLE JUSTIFICATION FORM

Using Departments seeking additional vehicles for their fleet must submit a "New Vehicle Justification" form. The series of questions on the form provides needed information for the Director of Fleet Services Division to complete business need analysis. The Director of Fleet Services Division will then work in conjunction with the Using Department to reach a decision about expanding the fleet. The completion and filing of this form with the Director of Fleet Services Division does not guarantee that an additional vehicle will be purchased, nor does it imply that the customer will receive the vehicle of their choice.

A "New Vehicle Justification" form shall also be completed by the Using Department if they wish to purchase a vehicle that is significantly different from the one being replaced, as determined by Director of Fleet Services Division.

V. ANNUAL REPORTING

Fleet Services Division shall provide a Green Fleet Annual Report. This report shall include updated fleet-inventory information (metrics 1-6 on page 3), along with an update on progress toward the emissions reduction goal, the percentage of Alternate-Fuel Vehicles in the City Fleet, and year-by-year performance for each of these. It will also include reporting on the number of exemptions, which departments and justification.

The Green Fleet Annual Report shall be reviewed by the Environmental Coordinating Team, the Green Fleet Team, and Fleet Services Division. The annual report shall be used to determine program effectiveness.

Annual Fleet Services Division purchasing plans shall be developed using the options listed above, recommendations from the Environmental Coordinating Team and in accordance with other applicable City Policies.

APPENDIX 1: DEFINITIONS

Alternate Fuel: Any fuel other than gasoline, diesel, and other substantially petroleum based fuels that is less polluting than gasoline or diesel fuel. Alternate fuel shall include, but is not limited to, natural gas, propane, ethanol (E-85), biodiesel (B5 or higher), and electricity, etc.

Alternate Fuel Vehicle: Any motor vehicle powered in whole or in part by non-petroleum-based fuels.

Biodiesel: Fuel refined from agriculturally derived oils that is suitable for use in diesel engines. Often blended with traditional petroleum-based diesel in amounts connoted by the letter "B" and number (e.g., B20 = 20% Biodiesel and 80% petroleum diesel).

Carbon Dioxide: A standard component of conventionally powered vehicle emissions and a principal greenhouse gas.

Compressed Natural Gas: Natural gas under pressure; vehicles can use natural gas as either a liquid or a gas, most vehicles use the gaseous form

Eco Driving: Driving best-practices that reduce fuel consumption, GHG emissions, and accident rates.

Electric Vehicle: A vehicle which uses one or more electric motors for propulsion.

Emergency Vehicles: Public safety response vehicles used by City of Minneapolis police and fire departments.

Fleet: City of Minneapolis inventory of motorized vehicles and metered equipment

Fleet Services Division: Division of City of Minneapolis, Public Works Department

Hybrid Vehicle: A vehicle that uses two or more distinct power sources to move the vehicle. Most commonly refers to hybrid electric vehicles (HEV) which combines an internal combustion engine and one or more electric motors.

Metered Equipment: Any powered implement that is metered for hours of use.

Life-Cycle Environmental Impacts: Life cycle assessment determines the environmental impacts of products, processes or services, through production, usage, and disposal

Using Departments: City of Minneapolis departments that operate motorized vehicles or metered construction equipment.

Vehicle Class Rating for City of Minneapolis on Road Fleet:

- Light Duty:
  - Class 1, 6,000 lbs and less
  - Class 2, 6,000 – 10,000 lbs
  - Class 3, 10,001 – 14,000 lbs
- Medium Duty:
  - Class 4, 14,001 – 16,000 lbs
  - Class 5, 16,001 – 19,500 lbs
  - Class 6, 19,501 – 26,000 lbs
- Heavy Duty:
  - Class 7, 26,001 – 33,000 lbs
  - Class 8, 33,001 lbs and over

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