


Administration Rule 40
City of Missoula Vehicle and Emissions Reduction Policy

I hereby sign into effect Administrative Rule No. 40, Vehicle and Emissions Reduction Policy, this 1st day March, 2023, pursuant to Ordinance 2232 which authorizes the Mayor to develop and approve administrative rules.


Jordan Hess (Mar 1, 2023 22:10 MST)
Jordan Hess, Mayor

Source: Community Development Division
Community Planning, Development, and Innovation
Prepared by: Climate Action Specialist
Replaces: n/a
Applies to: All city departments/entities

Vehicle and Emissions Reduction Policy

Facilities and Vehicles

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Introduction

Purpose and Objectives

Our climate is rapidly changing due to the Greenhouse Gas (GHG) emissions released into the atmosphere. In 2020, 12% of municipal operations' GHG emissions came from our vehicle fleet and on-road vehicle travel accounted for 30% of our community-wide emissions as of 2019. In the last decade, the City of Missoula has recognized the need to mitigate and adapt to climate change through the City's 2012 municipal Conservation and Climate Action Plan; our community-wide goal of 100% clean electricity by 2030; and our joint resiliency plan with Missoula County, Climate Ready Missoula: Building Resiliency in Missoula County. In particular, our municipal Conservation and Climate Action Plan establishes a goal of reaching carbon neutrality in municipal operations by 2025, which includes our vehicle fleet. Since 2012, GHG emissions from the City's fleet have increased 33%, largely due to the City's acquisition of the water utility in 2017.

This policy outlines the process for purchasing, oversight, operation, and management of the City's diverse vehicle fleet, which includes vehicles as well as mobile off-road and heavy duty equipment. As such, this policy covers all City Departments and Divisions that have vehicles or mobile equipment operating on gasoline, diesel, electricity, or other types of fuel or energy and are procured by Fleet Maintenance.

This policy sets guidelines to minimize the GHG emission contributions of current and future fleet vehicles. Implementation of this policy will help the City meet our climate action goals.

The overall objectives of this policy are to:

1. Reduce total GHG emissions from the City's fleet, in alignment with the City's emissions reduction goals.
2. Optimize the fleet size for each department by providing departments a process for considering whether to eliminate or reassign under-utilized vehicles, increase vehicle sharing, or increase carpooling.
3. Purchase new vehicles that provide the best available net reduction in vehicle fleet emissions, considering life-cycle economic and environmental impacts.
4. Inventory and report fleet GHG emissions.
5. Encourage and educate City staff in eco-driving best practices as well as in practical adjustments to operations that can reduce vehicle miles traveled.

Implementation Strategies

Optimize Fleet Size

Fleet Maintenance will provide Annual Using Department Reports to Using Departments, which will then make recommendations to Fleet Maintenance about possible fleet reductions for their department, or justifications for no recommended fleet reductions. When requesting a fleet

addition, Using Departments must provide Fleet Maintenance with sufficient written justification that the addition is necessary to meet City obligations.

1. Fleet Additions

- a. Using Departments seeking to purchase an additional vehicle for their fleet must submit a “New Vehicle Justification” form. The series of questions on the form will outline the need determined by the department, their considerations of alternatives to purchasing an additional vehicle, and their determination of why these alternatives would not be sufficient to meet City obligation. The completion and filing of this form with the Fleet Maintenance Director does not guarantee that an additional vehicle will be purchased, nor does it imply that the requesting department will receive the vehicle of their choice. Approval of new vehicle requests is the discretion of the Fleet Maintenance Director.
- b. 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 the Fleet Maintenance Director.
- c. The Using Department may appeal a decision with the Chief Operations Officer if it feels it can demonstrate a special need consistent with the goals of this policy.

2. Seasonal Fleet

- a. Seasonal vehicles are essential to the City’s operations to meet peak demands at certain times of year. Seasonal vehicles are typically units that have been replaced by a newer more efficient unit and are kept in the fleet short term to meet the peak needs. Fleet Maintenance will remove the vehicle from the fleet when it is no longer necessary to meet peak demand or when its emissions are deemed excessive, relative to alternatives capable of meeting the need. To determine excessive emissions compared to alternatives, the Fleet Maintenance Director will share a list of all seasonal vehicles, as reported by Using Departments, to the Climate Action Team every 3-5 years in alignment with the City-wide emissions inventory.

Replacement Vehicles

1. Replacement vehicles will achieve the greatest level of emission reductions possible while still meeting the operational needs of the City and being cost-effective on a total lifecycle basis, including externality costs (such as any additional costs the City may ascribe to GHG emissions in the future). Zero emission vehicles, such as Battery electric vehicles, will be prioritized for procurement when they are appropriate to the application, are technically feasible, ergonomically feasible, when fueling infrastructure is in place or can be made available, and when they meet the organizational need. The City shall make every effort to obtain 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 procure only models of passenger vehicles and light duty trucks that are zero emission vehicles.
 - i. If a zero emission option is not available, or the Using Department provides written justification that a zero emission vehicle does not meet the qualifications in part 1 of the Replacement Vehicles section (above), the next lowest emission vehicle shall be considered. The next lowest emission vehicle could be a plug-in hybrid, a hybrid, a vehicle whose engine is EPA certified as low emission, or another vehicle type.
 - b. Medium and Heavy Duty Vehicles: The City shall procure only models of medium and heavy duty vehicles that are zero emission vehicles, as long as service levels are not substantially impacted. If there are no available zero emissions vehicles that can fulfill the duties for the given application, the City shall purchase the next lowest emission vehicle, including medium and heavy-duty vehicles whose engines are EPA certified as low-emission, when available for the given application and where service levels are not substantially impacted.
 - c. Off-Road Equipment: The City shall only procure zero emission equipment, as long as service levels are not substantially impacted. If there are no available zero emission equipment that can fulfill the duties for the given application, the City shall purchase the next lowest emission equipment, including equipment whose engines are EPA certified as low-emission, when available for the given application and where service levels are not substantially impacted.
2. Vehicle purchase or replacement requests shall be reviewed by Fleet Maintenance. Fleet Maintenance will work with Using Departments to identify the most fuel-efficient vehicle with the maximized reduction of emissions available that can meet the operational needs of the department, while considering the vehicle life cycle and fuel availability.
 3. Requests for exemptions to the Vehicle Emissions Reduction Policy shall be submitted in writing to Fleet Maintenance. The Fleet Maintenance Director will determine if there is sufficient justification for an exemption.

Reduce Vehicle Size

This policy encourages the selection of vehicles of a smaller class size, whenever possible to achieve increased energy efficiency and lower emissions. Requests for new vehicle purchases must be supplemented with written justification addressing the need for a class or type.

Vehicle Maintenance

1. Vehicles shall be maintained as per manufacturers' recommendations and to maintain maximum efficiency.
2. As part of regular maintenance, existing vehicles should be considered for upgrades to their parts or operating systems to increase efficiency.

3. Environmentally friendly products shall be used where available, cost effective, and when it will not void the manufacturers' warranties. Re-treaded tires shall be purchased for large-wheeled or slow-moving vehicles, when applicable.

Economical Driving and Reducing Vehicle Miles Traveled

Economical driving practices, will be shared every three years in the safe driving training offered to all employees that operate fleet vehicles. Economical driving is designed to limit the use of fuel by a vehicle in its normal operation and can help reduce overall emissions from the City's fleet. When practical, Using Departments will plan to conduct operations to minimize vehicle miles traveled by fleet vehicles.

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, maintenance, and eventual disposal. When possible, Fleet Maintenance will continue to reduce the environmental impacts of vehicles throughout their life cycle

Zero Emissions Fueling/Charging Infrastructure

The infrastructure needed to adequately serve the City's zero emissions vehicles is a critical component of successfully implementing this Vehicle Emissions Reduction Policy. The fueling and/or charging patterns of fleet vehicles, and the infrastructure needed, will be unique to each Department of the City and the existing energy infrastructure that serves their operations. Because of this dependence on facility infrastructure, the planning for and adoption of fueling and/or charging infrastructure will be addressed in the City's Environmentally Sustainable Building Policy.

Reporting

GHG Emissions and Progress Report

The Climate Action Team shall provide a Vehicle Emissions Reduction Report in alignment with municipal GHG inventory conducted every 3-5 years. This report shall include an update on progress toward the emissions reduction goals as stated in this policy, the percentage of zero emission vehicles in the City fleet, and year-by-year performance for each. The City of Missoula will maintain an inventory of the vehicles in its fleet which may be used to inform for the City's broader GHG-reduction initiatives.

The Fleet Maintenance Director shall provide the raw data to inform this inventory and will thereafter provide updated information to the Climate Action Team in a reliable and verifiable manner every 3-5 years to align with the municipal GHG inventories.

The fleet inventory report 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. Annual GHG emissions (i.e., carbon dioxide equivalent).
4. Annual non-GHG tailpipe emissions (i.e., EPA criteria pollutants).
5. Quantity of fuel and energy equivalent consumed annually by fuel type.
6. Cost of fuel consumed annually by fuel type.

Thus, the inventory will include the above metrics 1 – 6 for each vehicle class rating for City of Missoula vehicles and mobile equipment, and fuel or energy type, including but not limited to:

1. Electricity (i.e., kWh taken from the grid, reported by Facilities
2. Gasoline
3. E-85 (Flex Fuel)
4. Diesel
5. Biodiesel

The Fleet Maintenance Director will provide the raw data for each of these metrics, except for electricity, which will be provided by the Facilities Manager.

Annual Using Department Reports

Fleet Maintenance will use the City's maintenance tracking software to provide annual vehicle telemetric reports to the Climate Action Team. The reports will include vehicle utilization by fuel usage, and by mileage or hours of use, for all fleet vehicles for the given year.

The information from these Using Department Reports will be analyzed for potential fleet reductions, and to determine when zero emission vehicles are a suitable option. These reports will be for internal reference and will support creation of the of the Vehicle Emissions Reduction Report created by the Climate Action Team every 3-5 years in alignment with the City's municipal GHG emissions inventory.

Appendix 1: Definitions

Battery Electric Vehicle (BEV): A vehicle which exclusively uses one or more electric motors, powered by a battery, for propulsion.

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.

Fleet: City of Missoula inventory of motorized vehicles and metered mobile equipment.

Fleet Maintenance: Division of City of Missoula, Facility and Vehicle Maintenance.

Fuel: Includes gas, diesel, biodiesel, compressed natural gas (CNG), electricity, or other source of energy for vehicle operation.

Hybrid Electric Vehicle: a vehicle powered by an internal combustion engine and one or more electric motors, which use energy stored in a battery. A hybrid electric vehicle cannot be plugged in to charge the battery. Instead, the battery is charged through regenerative braking and by the internal combustion engine.

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

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

Plug in Hybrid Electric Vehicle (PHEV): A vehicle with a combination of gasoline and electric power, meaning the vehicle may have a battery, an electric motor, a gasoline tank, and an internal combustion engine.

Using Departments: City of Missoula departments that operate motorized vehicles or metered mobile equipment.

Vehicle Class Rating for City of Missoula 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

Off-Road Equipment: Mobile equipment used in City operations that does not primarily travel on-road.

Zero Emission Vehicle: Vehicle that does not produce tail-pipe emissions.

Next Lowest Emission Vehicle/Equipment: Vehicle/Equipment with tail-pipe emissions closest to zero.