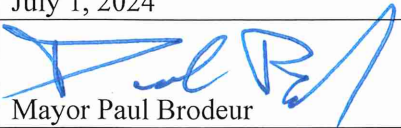
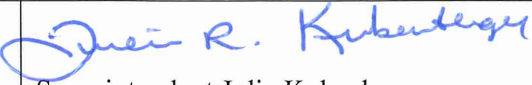


<p style="text-align: center;">City of Melrose Melrose Public Schools <b>ELECTRIC VEHICLE FIRST FLEET POLICY</b></p>	
Effective Date:	July 1, 2022
Required Policy Review Date:	July 1, 2024
Municipal Approval:	 Mayor Paul Brodeur
School District Approval:	 6/28/2022 Superintendent Julie Kukenberger

## BACKGROUND

The City of Melrose has approved the following policy to govern the replacement and purchase of all municipal vehicles with the most sustainable vehicle option, as defined below. This Policy is adopted in order to comply with the [DOER Green Communities Program requirements](#) and replaces the Fuel Efficient Vehicle Policy adopted in September 2011 and revised in January 2020.

## POLICY STATEMENT

Whereas the City of Melrose pledged to reduce its municipal energy use by realistic and measurable means by 20% using a 2009 baseline as required by Melrose's participation in the Green Communities Program as established by the Green Communities Act M.G.L. Chapter 25A Section 10;

Whereas as part of the city's overall goal to conserve natural resources, reduce our dependence on fossil fuels, reduce greenhouse gas (GHG) emissions, and promote the use of clean technologies;

Whereas the city committed to achieve Net Zero/Carbon Free status by 2050 in 2016; and

Whereas the 2022 Melrose Net Zero Action Plan calls for the city to lead by example and implement a plan to electrify city fleet vehicles;

**It is recognized that all city departments will take action to minimize greenhouse gas emissions from city operations by adopting an Electric Vehicle First Fleet Policy including:**

- **The purchase or lease of exclusively battery electric vehicles for all light-duty passenger fleet replacements starting in FY23;**
- **Pilot, evaluate, and where feasible, acquire electric vehicles for medium- and heavy-duty vehicle and equipment categories;**
- **Minimize vehicle miles travelled and minimize idling.**

Therefore, the City of Melrose hereby adopts this Policy to inform and guide all city employees regarding the purchase and efficient use of city vehicles. City departments shall make efficient use of municipal vehicles in order to minimize the cost of city operations to taxpayers, to protect and preserve the natural environment and quality of life in Melrose and to reduce GHG emissions.

## I. POLICY OBJECTIVES

It is the intent of this policy to create guidelines for the purchase and operation of city fleet vehicles in order to reduce municipal GHG emissions and demonstrate leadership in achieving the city's community-wide sustainability goals.

It is not the intent of this policy to require a department to take any action which conflicts with local, state, or federal requirements. Nor is it the intent of this policy to mandate the procurement of equipment that does not perform adequately for the intended use, to exclude adequate purchasing competition, or to require a purchase when a vehicle is not available at a reasonable price.

The objectives of this policy are to:

- Increase the use of all-electric vehicles in the city and school fleets
- Increase the average fuel economy of each vehicle
- Optimize the fleet size and minimize vehicle size, weight, and other factors affecting fuel use when appropriate
- Minimize vehicle miles traveled (VMT)
- Reduce total cost of ownership over the lifetime of the vehicle
- Reduce GHG emissions from the city's fleet vehicles
- Maximize the use of grant funding and incentives to convert and purchase electric and emissions-reduction technology for the city fleet

## II. APPLICABILITY

This policy applies to all departments of the City of Melrose including the Melrose Public Schools.

## III. DEFINITIONS

- Electric Vehicle:** a vehicle that gets all or part of its energy from electricity instead of gasoline
- BEV:** Battery electric vehicle, also known as all-electric or full-electric, have a rechargeable battery and rely on electricity as their sole source of fuel
- PHEV:** Plug-in hybrid electric vehicles have a rechargeable battery as well as a gasoline tank, which can be used if the battery is depleted.
- Combined city and highway MPG** (EPA combined fuel economy) – The fuel economy from driving a standardized combination of 43% city and 57% highway miles, for comparison purposes, calculated as follows:  
$$= (1 / ((0.43 / \text{City MPG}) + (0.57 / \text{Highway MPG})))$$
- Drive System** – The manner in which mechanical power is directly transmitted from the drive shaft to the wheels. The following codes are used in the vehicle inventory drive field:  
AWD = All Wheel Drive: four-wheel drive automatically controlled by the vehicle powertrain system  
4WD = 4-Wheel Drive: driver selectable four-wheel drive with 2-wheel drive option  
2WD = 2-Wheel Drive
- GVWR** – Gross Vehicle Weight Rating refers to the vehicle's weight and class
- Heavy-duty vehicle** – A vehicle with a manufacturer's GVWR of more than 8,500 pounds. Note: If a vehicle can be found on [www.fueleconomy.gov](http://www.fueleconomy.gov), then it has a GVWR of less than 8,500 pounds and is therefore NOT a heavy-duty vehicle and is NOT exempt from Green Communities fuel efficiency standards. (Reference: EPA Emissions Classification)
- Light duty** – A vehicle with a GVWR of less than 8,500 pounds. (Reference: EPA Emissions

Classification)

- i) **Medium duty** – A vehicle with a GVWR between 8,500 and 10,000 pounds. (Reference: EPA Emissions Classification)
- j) **Hybrid electric vehicle** - A vehicle powered by an internal combustion engine and an electric motor, which uses energy stored in batteries. 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.
- k) **Standard vehicle** – A vehicle powered by an internal combustion engine

#### **IV. VEHICLE INVENTORY**

##### **a. Maintain inventory of all city vehicles**

As required by the DOER Green Communities Program, the city will maintain an inventory of all vehicles owned by the city and school departments.

This inventory will include the following information at a minimum: model, make, model year, month and year purchased, VIN, drive system, weight class, miles per gallon, annual miles driven, total fuel consumption, department, vehicle function.

##### **b. Early retirement program for the least efficient vehicles**

Departments shall develop a plan to replace all non-exempt vehicles with fuel-efficient vehicles. Said plan shall prioritize vehicle replacement according to the life cycle cost, outline the process by which the city will replace vehicles, and set goals for when the existing fleet will be replaced. The early retirement plan shall be reviewed and revised, if necessary, on an annual basis.

#### **V. VEHICLE PROCUREMENT**

##### **a. Electric-first procurement**

Vehicle procurement should be prioritized as follows:

1. Battery-electric vehicle (BEV)
2. Plug-in hybrid vehicle (PHEV)
3. Hybrid-electric vehicle or other alternative fuel vehicle
4. Standard vehicle

The fleet policy is electric-first, meaning that electric vehicles shall be prioritized when the city purchases or leases motor vehicles for its municipal operations. Beginning in FY23, all light-duty passenger vehicles purchased or leased are required to be BEVs.

Departments may request an exemption from the BEV replacement. All exemptions shall require approval by the Department of Public Works' Director after a recommendation is made by the Public Works Operations Manager.

## **b. Fuel-efficient requirements for standard vehicles**

If it is determined that an electric vehicle (BEV or PHEV) does not meet the city's needs, the purchased or leased vehicle must be the most fuel-efficient class, drive train, and model available that will fulfill the intended municipal function.

When determining the most fuel-efficient vehicle for a given class, the city will utilize the fuel efficiency limits contained in the most recent guidance for Criteria 4 published by the Massachusetts [DOER Green Communities Program](#). These limits are based on the most recently published U.S. Environmental Protection Agency combined city and highway MPG ratings (see [www.fueleconomy.gov](http://www.fueleconomy.gov)). The EPA maintains a [database](#) on vehicle fuel efficiency that is updated throughout the year as new models are released. As increasing numbers of fuel-efficient vehicle models are released, the minimum combined MPG requirements of the Green Communities Program may be revised.

Using this EPA data, at the time of approval of this policy, when standard or hybrid vehicle exemptions are requested, such vehicles are to have a combined city and highway MPG no less than the following:

- 2-wheel drive car: 30 MPG
- 4-wheel drive car: 29 MPG
- 2-wheel drive van: 22 MPG
- 4-wheel drive van: 20 MPG
- 2-wheel drive pick-up truck: 21 MPG
- 4-wheel drive pick-up truck: 18 MPG
- 2-wheel drive sport utility vehicle: 24 MPG
- 4-wheel drive sport utility vehicle: 21 MPG

This policy may be updated from time to time to reflect these changes. **The [Green Communities' Criteria 4 Guidance](#) must be checked for updates prior to requesting an exemption for replacement vehicles.**

*In addition, many vehicles that meet the above criteria can be found on statewide contracts:*

[VEH110](#) - Light and Medium-Duty Vehicles

[VEH111](#) - Heavy-Duty Vehicles, Road Maintenance and Construction Equipment

[VEH102](#) - Advanced Vehicle Technology Equipment, Supplies and Services [includes Electric Vehicle Supply Equipment]

Nothing contained herein shall be construed to derogate from the authority and discretion of the procurement officers of the city or schools acting pursuant to the Uniform Procurement Law, Chapter 30B of the General Laws.

## **c. Transfers between departments**

Vehicles may not be recycled from one municipal department to another unless the recycled replacement meets the fuel efficiency ratings outlined in this Policy and is more efficient than the vehicle it is replacing. All vehicle transfers must be approved by the Department of Public Works' Director after a recommendation is made by the Public Works Operations Manager.



#### **d. Exempt vehicles**

Vehicles that are exempt from the MPG requirements above include off-road vehicles, motorcycles and heavy-duty vehicles. Heavy-Duty vehicles are defined as having a manufacturer's gross vehicle weight rating (GVWR) of more than 8,500 pounds. Examples include fire engines, ambulances, and some public works vehicles.

While exempt vehicles are not required to meet the specific MPG requirements listed above (Section V item b), exempt vehicles should prioritize vehicle procurement as outlined in this policy (Section V item a). If purchasing a standard vehicle, exempt vehicle purchases should prioritize the most fuel-efficient model available and consider fuel-reduction and emissions-reduction technology, such as diesel particle filters, selective catalytic reduction systems, exhaust gas recirculation, NOx adsorbers, oxidation catalysts, anti-idling devices, etc.

Where opportunities exist, particularly if grants and new technologies become available, the city should pilot electric options for heavy-duty and exempt vehicles.

#### **e. Evaluation of fleet and vehicle size**

The city will procure vehicles and equipment of minimum size according to assessed needs. Specifically, the city will ensure that purchase plans require vehicle class and model of the smallest size and weight appropriate for each vehicle's tasks. All positions requiring vehicle use shall be evaluated as to the required vehicle class size necessary to conduct the job.

The city will evaluate ways to reduce its fleet size. Departments will also investigate whether vehicles can be shared between departments. When retiring a vehicle from the fleet, the city will evaluate whether replacement is necessary.

#### **f. Evaluation of leasing**

If it is determined that an electric vehicle (BEV or PHEV) is not currently available to meet the city's needs, the city should consider leasing a standard vehicle to allow for flexibility to transition to an electric option if it becomes available during the life-cycle of that vehicle.

### **VI. POLICY IMPLEMENTATION AND ENFORCEMENT**

#### **a. Electric Vehicle transition plan**

The city will conduct a fleet baseline and develop an electric vehicle transition plan by FY2023. This fleet study will include a plan to transition the vehicle fleet to electric vehicles, identify necessary charging infrastructure, and consider opportunities for piloting and deploying vehicle-to-grid technology.

#### **b. Electric vehicle charging**

Where possible, efforts will be made to install charging equipment at locations convenient for vehicle users to minimize operational inefficiencies. However, flexibility may be required of vehicle operators and city staff to adjust procedures to accommodate charging locations.

### **c. Funding**

The purchase of policy-compliant vehicles and equipment may be more expensive in the initial years. Departments should estimate upfront investment required for vehicle purchases and budget accordingly in capital budget requests. The city shall evaluate existing capital requests for vehicles and evaluate opportunities to fund additional upfront costs. The city shall take advantage of grant funding to offset the upfront costs of electric vehicles and charging apparatus.

## **VII. VEHICLE OPERATION AND MAINTENANCE**

Where applicable, the city will use available resources to build awareness and educate its employees regarding responsible vehicle operation as detailed below.

### **a. Anti-Idling**

Vehicle idling produces both excessive waste of fuel and air pollution. As a part of this policy the city hereby recognizes the importance of enforcing the existing Anti-Idling Law, as allowed by M.G.L. Chapter 90 Section 16A. Additionally, city staff should reduce idling as much as possible in vehicle operations. The city will also incorporate anti-idling education into other public health and sustainability forums.

### **b. Reinforce operator awareness**

The city and its employees will encourage energy-saving driving habits (i.e. awareness of sudden acceleration or sudden stopping), and paying attention to the need for regular preventative maintenance of vehicles.

### **c. Reduce Vehicle Miles Travelled (VMTs)**

The city will reinforce employee awareness of vehicle miles travelled during work hours as well as for commuting, and will encourage alternate travel practices such as carpools, vanpools, bicycling, and walking.

### **d. Vehicle maintenance**

A well-maintained vehicle will optimize fuel use and reduce air pollution. Preventative maintenance that ensures optimal vehicle operation shall be performed regularly for each vehicle. Vehicles will be inspected regularly and prior to extended use to ensure correct tire pressure, oil and coolant levels, and to identify possible signs of other fluid leaks.