



## Town of Acton Zero-Emission Vehicle First Policy

Town of Acton	
<b>ZERO EMISSION FIRST VEHICLE POLICY</b>	
Effective Date	1/22/2024
Select Board Approval Date	1/22/2024

### 1) DEFINITIONS

- a) **Acquisition** - In the context of this guideline, acquisition refers to the purchase or lease of on-road vehicles (whether used or new) by and for the Town of Acton either to replace an existing fleet vehicle or to expand a fleet.
- b) **Alternative fuel vehicles (AFVs)** - Dedicated, flexible fuel, or dual-fuel vehicles designed to operate on at least one alternative fuel (such as electricity, biodiesel, propane, or natural gas) to reduce carbon emissions.
- c) **Battery electric vehicle (BEV)** – An electric vehicle that draws propulsion energy solely from an on-board electrical energy storage device during operation that is charged from an external source of electricity.
- d) **Electric vehicle supply equipment (EVSE) or electric vehicle charging station** – An electric component assembly or cluster of component assemblies designed specifically to charge batteries within electric vehicles by permitting the transfer of electric energy to a battery or other storage device in an electric vehicle.
- e) **Exempt vehicles** - Vehicles that are exempt from the Green Communities [Fuel Efficient Vehicle Policy](#) include off-road vehicles, motorcycles and heavy-duty vehicles with a manufacturer's gross vehicle weight rating (GVWR) of more than 8,500 pounds. Examples include fire engines, ambulances, and some public works vehicles.
- f) **Fleet vehicles** - In the context of this guideline, refers to on-road vehicle assets owned or leased and operated by the Town of Acton.

- g) **Fuel-cell electric vehicle (FCEV or FCV)** - An electric vehicle that draws propulsion energy solely from an on-board energy storage device during operation, where energy stored as hydrogen is converted to electricity by a fuel cell, that is recharged from an external source of hydrogen.
- h) **Fuel Efficient Vehicle (FEV) Policy** - Issued by the Department of Energy Resources (DOER) to fulfill the requirements of the Green Communities Act. The [FEV Policy](#) requires designated Green Communities to acquire fuel-efficient vehicles; applies to all light-duty vehicle acquisitions with a gross vehicle weight rating (GVWR) of 8,500 pounds or less.
- i) **Gross vehicle weight rating (GVWR)** - The maximum safe operating weight of a vehicle, as specified by the manufacturer, including passenger and cargo loads.
- j) **Heavy-duty vehicle** – A vehicle with a manufacturer’s gross vehicle weight rating (GVWR) of more than 8,500 pounds.
- k) **Hybrid electric vehicle (HEV)** - Powered by an internal combustion engine and a small electric motor that uses energy stored in a battery. Under light load, for instance during initial acceleration, only electricity is consumed. The vehicle is typically fueled with gasoline to operate the internal combustion engine, and the battery is charged through the engine and regenerative braking, not by plugging in.
- l) **Light-duty vehicle** – A vehicle with a GVWR of less than 8,500 pounds.
- m) **Plug-in hybrid electric vehicle (PHEV)** – An electric vehicle with an on-board electrical energy storage device that can be recharged from an external source of electricity and that also has the capability to run on another fuel.
- n) **Telematics** - A system that is installed in a vehicle that records and transmits information about the vehicle such as the current odometer, maintenance needs, and fuel/electricity consumption.
- o) **Zero emission vehicle (ZEV)** – Zero emission vehicles include battery electric vehicles, plug-in hybrid electric vehicles, and fuel-cell electric vehicles; if the most recent definition of ZEVs per the Massachusetts Zero Emission Vehicle Commission diverges from this scope, the Commission definition shall take precedence.

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## PURPOSE

The purpose of the Zero-Emission First Vehicle Policy is to set standards and guidelines for the purchase, operation, and maintenance of the Town of Acton fleet vehicles that will advance the economic, energy, and climate sustainability of municipal operations by achieving long-term reductions in energy costs, energy consumption, and greenhouse gas (GHG) emissions. The primary objectives of this policy are to:

- Accelerate the adoption of emissions-reduction technologies and the transition of the fleet to all electric or other environmentally advantageous vehicles
- Minimize the long-term environmental and financial impacts of fleet vehicles
- Optimize the composition of the fleet to achieve maximum fuel efficiency
- Advance the installation of electric charging infrastructure across municipal facilities
- Prioritize the utilization of grants, rebates, and incentives to support the acquisition of vehicles and technologies that will improve efficiency and reduce GHG emissions.

This policy shall not require a department to take any action which conflicts with local, state, or federal requirements nor mandate the procurement of products that do not perform adequately for their intended use, exclude adequate purchasing competition, or require the purchase of vehicles that are not commercially available or practicable.

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## **APPLICABILITY**

This policy applies to all divisions and departments of the Town of Acton. It applies to road-worthy passenger vehicles, pick up and utility trucks, and SUVs. It does not apply to specialized equipment (plowing, dump trucks, and public works operations) or off-road vehicles.

## **GUIDELINES VEHICLE PROCUREMENT**

### **I. 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 (HEV) or other alternative fuel vehicle (AFV)
4. Standard vehicle operated by an internal combustion engine fueled by fossil fuels

The fleet policy is electric-first, meaning that electric vehicles shall be prioritized when the Town of Acton purchases or leases light-duty vehicles for its operations, followed by plug-in hybrid vehicles, then hybrid electric or other alternative fuel vehicle.

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

If it is determined that a ZEV does not meet operational 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 municipality will utilize the fuel efficiency limits contained in the most [recent guidance for the Fuel-Efficient Vehicle Policy](#) established by DOER's Green Communities Division.

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.

### **III. Exempt vehicles**

Vehicles exempt from the fuel efficiency requirements above include:

- Any vehicle with emergency response capabilities (i.e. vehicles with radios, computers, emergency lights, and sirens) Note: Police cruisers are exempt, only if fuel-efficient pursuit-rated cruisers are not commercially available
- Heavy-duty trucks, such as fire trucks, ambulances, and public works trucks
- Off-road vehicles

While exempt vehicles are not required to meet the specific MPG requirements described above (Section II), exempt vehicles should prioritize vehicle procurement as outlined in this policy (Section I).

All other vehicles, including pickup trucks, vans, and police/fire administrative vehicles are not exempt and therefore must comply with the fuel efficiency requirements of this policy.

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 absorbers, oxidation catalysts, anti-idling devices, etc.

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

#### **IV. Inventory**

As required by the DOER Green Communities program, the Town of Acton will maintain an annual vehicle inventory for ALL vehicles and a plan for replacing any vehicles with vehicles that adhere to the ZEV hierarchy established by this policy. The Town of Acton will review on an annual basis the Vehicle Inventory, along with this policy to plan for new acquisitions as part of planning for the new fiscal year budget.

This inventory will include the following information: 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.

#### **V. Zero-Emission First Replacement Plan**

All vehicles shall be replaced with following the electric-first hierarchy as indicated by this policy. Vehicles shall be replaced when they are no longer operable and will not be recycled from one municipal department to another unless the recycled replacement is more efficient than the vehicle it is replacing. In addition, when considering vehicle replacement, the function of the vehicle will be reviewed for potential replacement with a more fuel-efficient vehicle, including a zero-emission non-exempt vehicle.

Where possible, efforts will be made to install charging equipment at locations convenient for vehicle users to minimize operational inefficiencies.

The Town shall take advantage of grant funding to offset the upfront costs of electric vehicles and charging apparatus.

#### **VI. Questions / Enforcement**

All other inquiries should be directed to the Sustainability Office. This policy is enforced by the Town of Acton Town Manager.