



TOWN OF ORLEANS

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SELECTBOARD

TOWN
MANAGER

ZERO EMISSION VEHICLE FIRST POLICY

This Zero Emission Vehicle First Policy for the Town of Orleans is intended to comply with Criterion 4 of the State of Massachusetts Green Communities Program and the Climate Leader Community Program.

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 either to replace an existing fleet vehicle or to expand the fleet.
- b) **Alternative fuel vehicles (AFVs)** – Dedicated, flexible fuel, or dual-fuel vehicles designated to operate on at least one alternate 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 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 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** – Vehicle that are exempt from the Green Communities Fuel Efficient Vehicle Policy, including off road vehicles, motorcycles and heavy-duty vehicles. 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 by the Town of Orleans.
- 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. Note that such vehicles with adequate hydrogen refilling infrastructure are not currently commercially available so these vehicle types will not be an option in the early years of this policy and not discussed below.
- 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; it applies to all light-duty vehicle acquisitions.
- 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 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 storage device that can be recharged from an external source of electricity and that 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 current odometer, maintenance needs, and fuel/electricity consumption.

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.

PURPOSE

The purpose of this Zero-Emission First Vehicle Policy is to set standards and guidelines for the purchase, operation, and maintenance of the Town of Orleans 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:

- Fully comply with Green Community requirements for vehicle needs of the town to maintain Green Community eligibility.
- 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, including minimizing vehicle weight, size and other factors, where appropriate
- Where feasible, make recommendations to minimize vehicle miles traveled (VMT)
- 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. Any intended exception to this policy shall require the approval of the Town Manager or their designee with a justification for the exception prior to vehicle purchase.

APPLICABILITY

This policy applies to all divisions and departments of the Town of Orleans. It applies to road-worthy passenger vehicles, pick up and utility trucks, and SUVs. It does not apply to specialized equipment or off-road vehicles.

STEPS TO IMPLEMENT FUEL EFFICIENT VEHICLE POLICY

The following steps are required to meet the Green Communities Act requirement to “purchase only fuel-efficient vehicles for municipal use whenever such vehicles are commercially available and practicable”:

I. Municipal Fleet Inventory

Town of Orleans is utilizing Mass Energy Insight (MEI) and can maintains the full municipal fleet within the database. Otherwise, the Town of Orleans will maintain an annual vehicle inventory for all vehicles and a plan for upgrading vehicles with vehicles that are higher in the zero emission-first procurement hierarchy established by this policy and set forth below. The Town of Orleans 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.

The following sample table lists the information that needs to be included in a vehicle inventory list for each vehicle owned by the town with examples of different vehicle types. The Town will update the list on an annual basis and provided to Town of Orleans Energy and Climate Action Committee, and if required to the MA DOER, to demonstrate compliance.

Sample Vehicle Inventory Tracking Table

Model	Make	Model Year	Year/Month Purchased	Vehicle Fuel Source	Drive System: 2WD, 4WD, AWD	>8500 pounds (Y or N)	Exempt or non-exempt (with reason supplied in footnote)	MPG Rating	Vehicle Function
Ford	Explorer	2021	01/2021	HEV	4WD	N	NE	Hybrid	Police Cruiser
Ford	F250	2016	08/2017	Diesel	4WD	Y	Exempt	N/A	DPW Maint
Ford	Focus	2014	07/2014	Gasoline	2WD	N	NE	32	Assessors
International	Dump Truck	2011	09/2011	Diesel	RWD	Y	Exempt	N/A	Sander/Snow Plow
Chevy	Bolt	2022	09/2022	BEV	2WD	N	NE	BEV	Inspector

I. Zero Emission First Replacement Plan

All vehicles subject to this zero-emission vehicle first policy shall be replaced according to the zero emission first hierarchy listed below 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 higher in the zero-emissions first procurement hierarchy [below] 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 vehicle that is higher in the zero emission-first procurement hierarchy below:

Zero emission-first procurement hierarchy:

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 alternate 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 Orleans purchases or leases light-duty vehicles for its operations, followed by plug-in hybrid, then hybrid electric or other alternate fuel vehicle.

Fuel-efficient requirements for standard vehicles

If it is determined, after a thoroughly documented written analysis, that a zero-emission vehicle does not meet operational needs, the purchase 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.¹ These limits are based upon the most recently published U.S. Environmental Protection Agency combined city and highway MPG ratings (see www.fueleconomy.gov). The EPA maintains a database on vehicle fuel efficiency that is updated throughout the year as new models are released.

Exempt Vehicles

Vehicles exempt from the fuel efficiency requirements include:

- Any vehicle with emergency response capabilities such as radios, computers, emergency lights, sirens, etc. Note that police cruisers exemption is expected to end in 2025, as vehicles meeting these standards (BEV, PHEV and MEV) become commercially available.
- Off-road vehicles

All other vehicles, including pick-up trucks, vans, and police/fire administrative are not exempt and therefore must comply with the zero-emission vehicle first requirements of this policy.

PURCHASE AUTHORIZATION

All proposed vehicle replacements that are non-exempt shall be approved by the Town Manager's Office prior to initiating procurement.

III. Questions / Enforcement

All inquiries should be directed to the Assistant Town Manager. This policy is enforced by the Town Manager or their designee.

Adopted: October 16, 2024

¹ As of [February 26], 2024, this guidance can be found at <https://www.mass.gov/doc/criterion-4-guidance-1/download>.