

Date Adopted: December 14, 2020

**Town of Concord
APP #65
Sustainable Fleet Policy**

Effective Date: January 1, 2021

Revisions: December 2020

Approval Date: December 14, 2020

BACKGROUND

The Town of Concord Select Board have approved the following policy to govern the replacement and purchase of all non-exempt municipal vehicles with the most sustainable vehicle option, as defined below.

This policy replaces APP #63, "Fuel Efficient Vehicle Policy" adopted in October of 2013.

POLICY STATEMENT

Whereby unanimous declaration of the Select Board the Town has pledged to reduce its municipal energy use by realistic and measurable means of 20% using a 2011 baseline as required by Concord's participation in the Green Communities Program as established by the Green Communities Act M.G.L. Chapter 25A Section 10.

Whereby as part of the Town's overall goal to conserve natural resources, reduce our dependence on foreign oil, reduce greenhouse gas emissions, and promote the use of clean technologies, as directed by the 2011 adoption of Sustainability Principles.

Whereby the Town committed to a goal of 80% reduction in community-wide greenhouse gas (GHG) emissions by 2050 in 2017.

Whereby the Town's 2020 Climate Action and Resilience Plan calls for the Town to lead by example and implement a plan to electrify town vehicle fleets.

It is recognized that all Town departments will take action to minimize greenhouse gas emissions from Town operations by adopting a Sustainable Fleet Policy including:

- **The purchase or lease of exclusively battery electric vehicles for all light-duty passenger fleet replacements by FY22;**
- **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 Select Board hereby adopts this Policy to inform and guide all Town employees regarding the purchase and efficient use of town vehicles. Town departments shall make efficient use of municipal vehicles in order to minimize the cost of town operations to taxpayers, to protect and preserve the natural environment and quality of life in Concord, and reduce GHG emissions.

Further, this Policy is adopted in order to:

- Reduce GHG emissions as directed by Article 51 at the 2017 Annual Town Meeting
- Comply with the [DOER Green Communities Program requirements](#)
- Demonstrate leadership in electrifying transportation as called for in the 2020 Climate Action and Resilience Plan
- Reduce life-cycle cost of vehicle ownership
- Enforce environmentally-responsible fleet maintenance
- Minimize the Town's consumption of natural resources
- Improve local air quality and public health

We the Concord Select Board do hereby approve the following Sustainable Fleet Policy dated this 14 day of December 2020.

CONCORD SELECT BOARD

Linda L. Escobedo

NAME, Chair

Jane Hotchkiss

NAME

Susan Bates

NAME

Terri Ackerman

NAME

Matthew Johnson

NAME

Date Signed:

December 24, 2020

Sustainable Fleet Policy

I. POLICY OBJECTIVES

It is the intent of this policy to create guidelines for the purchase and operation of town fleet vehicles in order to reduce municipal GHG emissions and demonstrate leadership in achieving the town'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 products that do not perform adequately for their 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 town fleet
- 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 town's fleet vehicles
- Maximize the use of grant funding and incentives to convert and purchase electric and emissions-reduction technology for the town fleet

II. APPLICABILITY

This policy applies to all departments of the Town of Concord and is adopted in conjunction with a similarly-worded policy adopted by the Concord School Committee.

III. DEFINITIONS

- a) Electric Vehicle: a vehicle that gets all or part of its energy from electricity instead of gasoline
- b) BEV: Battery Electric Vehicles, also known as All-electric or Full-electric, have a rechargeable battery and rely on electricity as their sole source of fuel
- c) 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.
- d) Combined city and highway MPG (EPA Combined fuel economy) – The fuel economy from driving a standard combination of 43% city and 57% highway miles, calculated as follows:
$$= (1 / ((0.43 / \text{City MPG}) + (0.57 / \text{Highway MPG})))$$
- e) 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:
 - a. AWD = All Wheel Drive: four-wheel drive automatically controlled by the vehicle powertrain system
 - b. 4WD = 4-Wheel Drive: driver selectable four-wheel drive with 2-wheel drive option
 - c. 2WD = 2-Wheel Drive

- f) GVWR – Gross Vehicle Weight Rating refers to the vehicle’s weight and class.
- g) Heavy-duty vehicle – A vehicle with a manufacturer’s gross vehicle weight rating (GVWR) of more than 8,500 pounds. Note: If a vehicle can be found on 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)
- h) 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)

IV. VEHICLE INVENTORY

a. Maintain inventory of all Town vehicles

As required by the DOER Green Communities Program, the Town will maintain an inventory of all Town- and School-owned vehicles.

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.

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 Town 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 Town purchases or leases motor vehicles for its municipal operations. Beginning in FY22, 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 Town Manager after a recommendation is made by the Director of Sustainability.

b. Fuel-efficient requirements for standard vehicles

If it is determined that an electric vehicle (BEV or PHEV) does not meet the Town’s needs, the purchased or leased vehicles 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 Town will utilize the fuel efficiency limits contained in the most recent guidance for Criteria 4 published by the MA Department of Energy Resources' Green Communities Division (<https://www.mass.gov/guides/becoming-a-designated-green-community>). These limits are based on 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. 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, 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 sports utility vehicle: 24 MPG
- 4 wheel drive sports 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 ordering replacement vehicles.

In addition, many vehicles that meet the above criteria can be found on statewide contract VEH98:
"Purchase of Light Duty Vehicles – Passenger Cars, SUVs, Trucks, Vans, SSVs and PPVs located on www.commbuys.com .

These fuel efficiency rules are set to ensure that at least five or more automatic transmission models of mass production (excluding luxury models) are available for sale in Massachusetts.

Nothing contained herein shall be construed to derogate from the authority and discretion of the procurement officers of the Town 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 Town Manager after a recommendation is made by the Director of Sustainability.

d. 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 cruisers are not commercially available

- Heavy-duty trucks, such as fire trucks, ambulances, and public works trucks
- Off-road vehicles

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.

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 are or become available, the Town should pilot electric options for heavy-duty and exempt vehicles.

Where the Town contracts vehicle services, the Town will allow for consideration of contracts and seek out companies for competitive bidding that offer the use of electric and/or fuel-efficient vehicles.

e. Evaluation of fleet and vehicle size

The Town will procure vehicles and equipment of minimum size according to assessed needs. Specifically, the Town 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 Town 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 Town 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 Town's needs, the Town 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 Town will conduct a fleet baseline and develop an electric vehicle transition plan by 2022. This fleet study will include a plan to transition the vehicle fleet to electric vehicles, identify necessary charging infrastructure, and 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 town staff to adjust procedures to accommodate charging locations.

Electric vehicles should be scheduled to charge only during off-peak hours (as defined by Concord Municipal Light Plant) unless it would negatively impact town operations. Off-peak hours are listed here: <https://concordma.gov/DocumentCenter/View/1201/Residential-Time-of-Use-Rate-PDF>

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 Town shall evaluate existing capital requests for vehicles and evaluate opportunities to fund additional upfront costs.

The Town 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 Town 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 Town hereby recognizes the importance of enforcing the existing Anti-Idling Law, as allowed by M.G.L. Chapter 90 Section 16A. Additionally, Town staff should reduce idling as much as possible in vehicle operations. The Town will also incorporate anti-idling education into other public health and sustainability forums.

b. Reinforce operator awareness

The Town 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 Town 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.

The Town will dispose of hazardous materials such as waste oil, lubricants, antifreeze, and batteries safely through environmentally-responsible practices and in accordance with all applicable state and federal regulations.