GREEN COMMUNITIES DESIGNATION and GRANT PROGRAM

GUIDANCE

Fuel efficient vehicles

Criterion 4

INTRODUCTION

Criterion Four of the Green Communities Program states that communities must purchase only fuel-efficient vehicles for municipal use whenever such vehicles are commercially available and practicable. The purpose behind this criterion is to reduce carbon dioxide emissions by municipal vehicles, which has a positive impact on the environment and saves municipalities money.

As background, the US Environmental Protection Agency's Green Vehicle Guide states that:

Vehicles with lower fuel economy create more carbon dioxide - the most prevalent greenhouse gas - than vehicles with higher fuel economy. Every gallon of gasoline your vehicle burns puts about 20 pounds of carbon dioxide into the atmosphere because air has weight and mass, and it takes a lot of it to burn a gallon of gasoline. One of the most important things you can do to reduce your contribution to global warming is to buy a vehicle with higher fuel economy. The difference between 25 miles per gallon and 20 miles per gallon can amount to the prevention of 10 tons of carbon dioxide over a vehicle's lifetime. Buying a more fuel efficient vehicle will also will help to reduce our nation's dependence on fossil fuels. And of course, you will save money by having to fuel up less often.

COMPLIANCE

To meet this criterion, municipalities need to adopt by action of the local official or body with authority to enact municipal policies a written Fuel Efficient Vehicle Policy that requires municipal departments and divisions to purchase only fuel efficient vehicles **(*See Appendix A, model policy*)**. Both general government and school districts are required to enact a fuel efficient vehicle policy for a municipality to meet this requirement, and letters documenting adoption must be provided and signed by the appropriate municipal authorities, as noted below. Letters from other municipal officials are not acceptable.

For letters from the general government and school district:

- **General Government** – The general government must provide a letter from the Chief Executive Officer of the city or town stating that it has adopted the Fuel Efficient Vehicle Policy.

The Chief Executive Officer is defined as the manager in any city having a manager and in any town having a city form of government, the Mayor in any other city, and the Board of Selectmen in any other town unless some other officer or body is designated to perform the functions of a Chief Executive Officer under the provisions of a local charter or laws having the force of a charter.

- **Public School Districts** - For a municipality to meet this requirement, its public school district must provide a letter from the School Superintendent stating that is has adopted the Fuel Efficient Vehicle Policy. Please note that even if the school only has vehicles that are exempt from the Policy, adoption of the Policy by the school must be provided since the school may acquire non-exempt vehicles in the future.

- **Regional School Districts** – Regional School Districts are not required to be part of a municipality's Green Communities designation application. However, for regional school districts that wish to be part of a municipality's Green Communities designation (with approval by the municipality), the regional school district must also adopt the Fuel Efficient Vehicle Policy and provide a letter from the Superintendent stating that it has adopted the Policy.

Sample adoption letters are provided in Appendices B and C.

In addition, the municipality is required to develop and maintain a vehicle inventory for all vehicles, both exempt and non-exempt. A plan for replacing non-exempt vehicles with vehicles that meet the fuel efficiency ratings below must also be developed and maintained. This inventory of all vehicles and replacement plan for non-exempt vehicles must include school vehicles. The fuel efficiency ratings are set to ensure that at least five or more automatic transmission models of mass production are available for sale in Massachusetts (all from affordable brands; no luxury brands). Based on 2010 EPA data, vehicles are to have a combined city and highway MPG no less than the following:

- 2 wheel drive car: 29 MPG
- 4 wheel drive car: 24 MPG
- 2 wheel drive minivan 20 MPG
- 4 wheel drive minivan 18 MPG
- 2 wheel drive pick-up truck: 17 MPG
- 4 wheel drive pick-up truck: 16 MPG
- 2 wheel drive sport utility vehicle: 21 MPG
- 4 wheel drive sport utility vehicle: 18 MPG

Hybrid or electric vehicles in these vehicle classes will meet these criteria.

To inform your purchasing decisions, information on makes and models of vehicles, including fuel economy comparisons, can be found at: http://www.fueleconomy.gov/ We encourage use of this valuable resource for informing decisions.

In addition, many vehicles that meet the above criteria can be found on statewide contract OVM10, "Purchase of Vehicles: Gasoline, Hybrid and Other Alternative Fuel Vehicles," located on www.comm-pass.com .

***NOTE:** The EPA maintains a database on vehicle fuel efficiency that is updated occasionally throughout the year, as new models are released. As increasing numbers of fuel efficient vehicle models are released, the minimum combined MPG requirements of Criterion 4 will be revised upwards. Thus, cities and towns must check the Criterion 4 Guidance for updates prior to ordering new vehicles.

In order to encourage efficient driving practices, municipalities should implement a monitoring system to record miles driven, fuel consumption, etc. for each vehicle in every department. A monitoring system will help facilitate the municipality's reduction in aggregate energy consumption. If a municipality provides fuel for fleet vehicles, it should consider using a universal fleet card that provides a monitoring system for tracking fuel use.

VEHICLE RECYCLING

Recycling of vehicles – i.e., moving a previously purchased and used vehicle from one municipal department to another municipal department in need of a vehicle - is only allowed if the vehicle being recycled to a new department meets the fuel efficient criteria listed above. Please be advised that a recycled Ford Crown Victoria does not meet the MPG rating and therefore would not meet fuel efficient vehicle requirements. When a city or town is ready to retire a Crown Victoria police vehicle, fleet disposal companies can provide an attractive option.

EXEMPTIONS

Vehicles that are exempt from the municipal Fuel Efficient Vehicle Policy include heavy-duty vehicles 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. In addition, police cruisers, passenger vans, and cargo vans are exempt from this criterion, but, municipalities must commit to purchasing fuel efficient cruisers, passenger vans, and cargo vans when they become commercially available. Police and fire department administrative vehicles MUST meet fuel efficient requirements.

Emergency Response vehicles that are under 8,500 pounds and for which fuel efficient models are available are NOT exempt.

***PLEASE NOTE**: If a vehicle is found on www.fueleconomy.gov, then it has a GVWR of less than 8,500 pounds, is **NOT** a heavy-duty vehicle and is **NOT** exempt.*

ALTERNATIVE COMPLIANCE

If a municipality has a vehicle fleet composed of all exempt vehicles (e.g. heavy-duty vehicles and/or police cruisers), it must propose alternative means of reducing vehicle fuel consumption in order to comply with this criterion. Examples of Alternative Compliance include having in place policies and programs that reduce vehicle fuel consumption such as: carpooling incentives for municipal employees; preferred parking for employees with hybrid vehicles; bicycle racks at municipal buildings; incentives to encourage

employees to bike to work; or a bicycle sharing program for employees to travel within the municipality. Alternative compliance can also be provided through the Installation of electric vehicle charging stations, and/or use of alternative fuels such as biodiesel blends from B-5 to B-20 for heavy duty fleets. While DOER encourages policies such as these for all municipalities, cities and towns that do not have any vehicles in their fleet subject to the MPG criteria MUST provide some form of Alternative Compliance. In addition, a municipality must note that, should it acquire non-exempt vehicles in the future, it is committed to purchasing non-exempt vehicles that meet the most recent guidance for Criterion 4 published by the MA Department of Energy Resources' Green Communities Division. See Appendix D for a model Fuel Efficient Vehicle Policy for Alternative Compliance.

A vehicle inventory of exempt vehicles must be provided.

Please note: Even if a municipality has only one non-exempt vehicle, it must have a Fuel Efficient Vehicle Policy in place. Alternative Compliance for meeting Criterion 4 can only be used if ALL vehicles in the fleet are exempt.

APPLICABILITY

All communities seeking Green Communities designation must adopt a fuel efficient vehicle policy that reflects the most recent MPG criteria published in this Guidance. If a municipality has adopted a policy that reflects old MPG criteria, it must have done so within the six months immediately preceding issuance of revised Guidance in order to qualify for credit under this criterion when applying for designation.
All designated Green Communities must review their Fuel Efficient Vehicle Policy on an annual basis and ensure that their policies reflect DOER's most recently published MPG minimums. The Annual Reporting required of Green Communities will include this information.

Future Financial Considerations

Contingency language regarding potential future budgetary constraints in Fuel Efficient Vehicle Policies will not be accepted. DOER recognizes that predicting and committing future budgets is difficult and will work with municipalities on a case-by-case basis should they encounter difficulty complying with their Fuel Efficient Policy due to a budget issue in a particular year.

FOR MORE INFORMATION

Websites:

www.mass.gov/energy/greencommunities

www.fueleconomy.gov

Statewide contract ***OVM10, "***Purchase of Vehicles: Gasoline, Hybrid and Other Alternative Fuel Vehicles," located on www.comm-pass.com .

Contact your Regional Coordinator

APPENDIX A

This model policy was prepared to assist cities and towns in developing a fuel efficient vehicle policy. This model policy is intended for illustration purposes. Communities are free to utilize the format provided.

Municipality / School District **FUEL EFFICIENT VEHICLE POLICY**	
Effective Date	
Revisions	
Board of Selectman Approval Date	
School Superintendant Approval Date	

DEFINITIONS

Combined city and highway MPG (EPA Combined fuel economy): Combined Fuel Economy means the fuel economy from driving a combination of 43 percent city and 57 Percent highway miles and is calculated as follows:

=1/((0.43/City MPG)+(0.57/Ihighway 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 drive field:

- AWD = All Wheel Drive: 4 -wheel drive automatically controlled by the vehicle power train system
- 4WD = 4-Wheel Drive: driver selectable 4-wheel drive with 2-wheel drive option
- 2WD = 2-Wheel Drive

Heavy-duty vehicle: A vehicle with a manufacturer's gross vehicle weight rating (GVWR) of more than 8,500 pound

POLICY STATEMENT

In an effort to reduce the (city/town/school district/other local entity)'s fuel consumption and energy costs the (policy making body) hereby adopts a policy to purchase only fuel efficient vehicles to meet this goal.

August 2013

PURPOSE

To establish a requirement that the (city/town/school district/other local entity) purchase only fuel efficient vehicles for municipal/school use whenever such vehicles are commercially available and practicable.

APPLICABILITY

This policy applies to all divisions and departments of the (city/town/school district/other local entity).

GUIDELINES

All departments/divisions shall purchase only fuel-efficient vehicles for municipal use whenever such vehicles are commercially available and practicable.

The (city/town/school district/other local entity) will maintain an annual vehicle inventory for ALL vehicles and a plan for replacing any non-exempt vehicles with vehicles that meet, at a minimum, the fuel efficiency ratings contained in the most recent guidance for Criterion 4 published by the MA Department of Energy Resources' Green Communities Division.

It is the responsibility of the (city/town/school district/other local entity) to check the Green Communities Division's Guidance for Criterion 4 for updates prior to ordering replacement vehicles.

Exemptions

- Heavy-duty vehicles: examples include fire-trucks, ambulances, and some public works trucks that meet the definition of heavy-duty vehicle

- Police cruisers, passenger vans and cargo vans are exempt from this criterion since fuel efficient models are not currently available. However, we commit to purchasing fuel efficient police cruisers, passenger vans and cargo vans when they become commercially available. Police and fire department administrative vehicles are NOT exempt and must meet fuel efficient requirements.

Inventory

The following information shall be included in a vehicle inventory list and said list shall be updated on an annual basis and provided to the Green Communities Division:

Model	Make	Model Year	Year/month Purchased	Drive System: 2 WD, 4WD or AWD	> 8500 pounds ? (Y or N)	Exempt or non-exempt	MPG Rating	Vehicle Function

NOTE: Departments/Divisions may use EPA combined MPG estimates or actual combined MPG.

FUEL EFFICIENT VEHICLE REPLACEMENT PLAN

All non-exempt vehicles shall be replaced with fuel-efficient vehicles that adhere to the most recent Green Communities Criterion 4 Guidance. 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 vehicle meets the fuel efficiency ratings outlined in the Policy. In addition, when replacing exempt vehicles, the function of the vehicle will be reviewed for potential replacement with a more fuel efficient vehicle, including a fuel efficient non-exempt vehicle.

(city/town/school district/other local entity) will review on an annual basis the Vehicle Inventory, along with the Green Communities Criterion 4 Guidance, to plan for new acquisitions as part of planning for the new fiscal year budget.

QUESTIONS / ENFORCEMENT

All other inquiries should be directed to the department/division responsible for fleet management and/or fleet procurement. This policy is enforced by the Chief Administrative Officer and/or his/her designee(s).

Appendix B

Sample town adoption letter

Letter must be on Town Letterhead

MA Department of Energy Resources
Green Communities Division
100 Cambridge Street – Suite 1040
Boston, MA 02114

{date of letter}

At a public Board of Selectmen meeting held on [DATE], the Board of Selectmen voted to adopt the attached Fuel Efficiency Vehicle Policy.

Thank you.

Signature and Typed Name of Chair

Appendix C

Sample School Adoption Letter

Letter must be on School letterhead

MA Department of Energy Resources
Green Communities Division
100 Cambridge Street – Suite 1040
Boston, MA 02114

{date of letter}

Please be advised that the Public Schools of [Town] hereby adopted the attached Fuel Efficiency Vehicle Policy.

Thank you.

Signature and Typed Name of Superintendent of Schools

Appendix D

This model policy was prepared to assist cities and towns in developing a fuel efficient vehicle policy. This model policy is intended for illustration purposes. Communities are free to utilize the format provided.

(city/town/school district/other local entity name) Alternative Compliance Fuel Efficient Vehicle Policy

FEVP Effective Date	
Date of Municipal Approval	
Date of Board of Selectmen Approval	
Date of School Superintendant Approval	

INTRODUCTION

Criterion Four of the Green Communities Program states that a Green Community must purchase fuel-efficient vehicles for municipal use, including schools, whenever such vehicles are commercially available and practicable. (city/town/school district/other local entity name) currently owns 10 vehicles for municipal use. All vehicles fall into the exempt status according to the Green Community's Criterion 4 guidance. (city/town/school district/other local entity name) has adopted this Fuel Efficient Vehicle Policy (FEVP) to purchase the most fuel-efficient vehicles for all departments/divisions whenever they become commercially available.

This policy is established to reduce the consumption of fossil fuels, which in turn will have a positive impact on the environment and save tax dollars. Under this policy (city/town/school district/other local entity name) hereby establishes a monitoring system to help facilitate the municipality's reduction in vehicle consumption. (city/town/school district/otherlocal entity name) Select Board will establish and oversee the monitoring system in conjunction with the town and school officials and staff. Additionally, (city/town/school district/other local entity name) has adopted an anti-idling policy for all municipally-owned vehicles.

ALTERNATIVE COMPLIANCE

(city/town/school district/other local entity name) has all exempt vehicles (see attachment A, vehicle inventory). Therefore, city/town/school district/other local entity is seeking Alternative Compliance for Criterion 4 based on the following three actions:

1) (city/town/school district/other local entity name) has developed an inventory of all registered vehicles for each department.

2) The annual miles driven (or hours used) and total fuel consumption will be determined starting in the municipal fiscal years of 2014, beginning on July 1, 2014. city/town/school district/other local entity will review this information in September of each year for potential ways to reduce consumption, including: reducing vehicle miles traveled, replacing exempt vehicles with fuel-efficient non-exempt vehicles, replacing exempt vehicles with more efficient exempt vehicles.
3) (city/town/school district/other local entity name) has adopted an anti-idling policy, in accordance with MGL chapter 90, Section 16A (see Attachment B) applicable to all municipal vehicles to reduce vehicle fuel consumption and emissions.
4) (city/town/school district/other local entity name) is a rural community with no access to public transportation, and, since employees travel to work from multiple directions, carpooling is unrealistic. However, two (2) priority parking place for employees traveling to work with hybrid and electric vehicles have been created closest to the main entrance of Town Hall.

POLICY STATEMENT

In an effort to reduce (city/town/school district/other local entity name)'s fuel consumption and energy costs, (city/town/school district/other local entity name)'s Board of Selectmen herby adopts this policy to purchase the most fuel–efficient vehicles to meet this goal.

APPLICABILITY

This policy applies to all divisions and departments of (city/town/school district/other local entity name).

GUIDELINES

All departments/divisions will purchase the most fuel-efficient vehicles for municipal use (including police, fire and highway) whenever such vehicles are commercially available and practicable.

(city/town/school district/other local entity name) will maintain an annual vehicle inventory for all vehicles and a plan for replacing any non-exempt vehicles that meet, at a minimum, the fuel efficiency ratings contained in the most recent guidance for Criterion 4 published by the MA Department of Energy Resources' Green Communities Division. The fuel efficiency ratings contained therein are based on the most recently published US Environmental Protection Agency combined city and highway MPG ratings for vehicles. The most recent Green Communities Guidance for Criterion 4 will be checked for updates prior to ordering replacement vehicles.

<u>Exemptions</u>

Heavy-duty vehicles such as fire trucks, ambulances, heavy-duty trucks and vans and public works trucks are exempt from this criterion. Police cruisers are also exempt from this criterion. However, (city/town/school district/other local entity name) commits to purchasing fuel-efficient cruisers when they become commercially available and practicable. Police Department administrative vehicles must meet fuel-efficient requirements unless they are also used as police cruisers.

Inventory

An inventory of all Town vehicles is contained in Attachment A and shall be updated on an annual basis.

FUEL EFFICIENT VEHICLE REPLACEMENT PLAN

All non-exempt vehicles shall be replaced with fuel-efficient vehicles that meet the fuel efficiency ratings outlined in the 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 vehicle meets the fuel efficiency ratings outlined in the Policy. In addition, when replacing exempt vehicles, the function of the vehicle will be reviewed for potential replacement with a more fuel efficient vehicle, including a fuel efficient non-exempt vehicle.

The Vehicle Inventory will be reviewed on an annual basis along with the Green Communities Criterion 4 Guidance to plan for new acquisitions as part of planning for the new fiscal year budget.

DEFINITIONS

Combined City and Highway MPG (EPA Combined fuel economy): Combined Fuel Economy means the fuel economy from driving a combination of 43 percent city and 57 percent highway miles and is calculated as follows:

Combined City and highway MPG = $\frac{1}{\left(\frac{0.43}{CityMPG}\right) + \left(\frac{0.57}{HighwayMPG}\right)}$

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 drive field:

- AWD = All Wheel Drive: four-wheel drive automatically controlled by the vehicle power train system
- 4WD = 4 Wheel Drive: driver selectable four-wheel drive with 2-wheel drive option
- 2WD = 2-wheel Drive

Heavy-Duty Vehicle: A heavy-duty vehicle is defined as a vehicle with a manufacturer's gross vehicle weight rating (GVWR) of more than 8,500 pounds.

QUESTIONS AND ENFORCEMRNT

All inquires should be directed to the department/division responsible for fleet management and/or fleet procurement. This fuel Efficient Vehicle Replacement Plan is enforced by the Chief Administrative Officer and/or his/her designee(s).

ATTACHMENT A

(city/town/school district/other local entity name) MUNICIPAL VEHICLE INVENTORY

#	Department	Make	Model	Model Year	Drive System[1]	Date Purchased (month/yr)	Gross Vehicle Weight[2]	Exempt	Function
1	Ambulance	Ford		2004	4W	11/04	15,000	Yes	
2	DPW	Cat		1999	4W	6/04	11,100	Yes	
3	DPW	International		2007	2W	12/06	40,780	Yes	
4	DPW	John Deere		2008	4W	4/08	14,000	Yes	
5	Fire	Dodge		1951	4W	8/78	8,000	Yes	Brush Truck
6	Fire	International		1990	2W	12/89	35,000	Yes	Pumper
7	Fire	GMC	Yukon	1999	4W	12/10	8,500	Yes	
8	Fire	International	4400	2002	2W	8/02	35,000	Yes	Pumper
9	Highway	Cat	426B	1993	4W	4/08	16,000	Yes	Backhoe
10	Police	Ford	Crown Victoria	2006	4W	6/06	< 8,500	Yes	Cruiser

Notes: 1. Drive System: 2 WD, 4WD, or AWD
2. At minimum, a Town must indicate if the vehicle is <8,500 or >8,500 pounds

ATTACHMENT B

This sample policy was taken from the MA DEP's idling reduction toolkit, found at http://www.mass.gov/dep/air/community/depirkit.doc.

(city/town/school district/other local entity name)**ANTI-IDLING POLICY**

This policy applies to [Insert target audience: residents, municipal fleet, school] vehicles operated by or within the town/city of [name of municipality].

OBJECTIVES

1) To eliminate unnecessary idling of vehicles in order to reduce the community's exposure to exhaust from gasoline and diesel engines.
2) To educate and inform municipal employees and residents about the health and environmental effects of gasoline and diesel exhaust.

PURPOSE

Idling vehicles pollute the air and present several health and environmental hazards. Gasoline and diesel vehicles produce carbon monoxide, carbon dioxide, volatile organic compounds (VOCs) and oxides of nitrogen (NOx). Carbon monoxide causes respiratory distress and in high concentrations can be lethal; carbon dioxide is a primary contributor to global warming; and VOCs and NOx and form ozone, ground-level smog and impair lung function. In addition, diesel exhaust contains fine particulate matter, which the U.S. Environmental Protection Agency has designated as a likely carcinogen. The elderly, chronically ill and children are all particularly vulnerable to these health effects because their lung function is respectively decreased, impaired or still in development.

In addition, Massachusetts General Law (MGL Chapter 90, Section 16A) and the Massachusetts Department of Environmental Protection (DEP) idling reduction regulation (310 CMR 7.11(1)(b)) both prohibit unnecessary vehicle idling by stating that the engine must be shut down if the vehicle will be stopped for more than five minutes. Exemptions include: 1) the vehicle is being serviced and the idling is required to repair the vehicle; or 2) the vehicle is making deliveries and needs to keep its engine running (to power refrigerators, for example); and, 3) the vehicle's accessory equipment needs to be powered, such as a fork lift or a truck's rear dump bed, or a wheelchair lift in a bus or van. To provide additional protections for children, MGL Chapter 90, Section 16B further restricts unnecessary idling in school zones.

In order to reduce the health and environmental effects of vehicle exhaust, comply with the state's idling reduction regulation and law, and decrease our use of fuel by reducing unnecessary idling, the following actions shall be implemented to the maximum extent practicable:

[*Municipality would insert specific actions it will implement in its Idling Reduction Campaign such as: posting of signs in public areas, educating municipal employees and residents, establishing best management practices for municipal vehicle operations, etc.*]

This policy is hereby approved by the [Governing Body], this [date], to eliminate unnecessary idling.

Signature:_____

Authorized Official