

FREQUENTLY ASKED QUESTIONS

About Federal Fleet Management

Federal agencies ask numerous reoccurring questions about Federal fleet management. The U.S. Department of Energy (DOE) Federal Energy Management Program (FEMP) helps Federal agencies answer these questions while meeting Federal fleet goals and requirements.

Definitions

What is an alternative fuel?

The Energy Policy Act (EPAct) of 1992 defines alternative fuel as methanol, ethanol, natural gas, liquefied petroleum gas, hydrogen, electricity, pure or neat biodiesel (B100), or any other fuel deemed by the Secretary of Energy to yield “substantial energy security and environmental benefits.” Gasoline blends only qualify if the mixture contains less than 20 percent gasoline. [See Appendix A for more detail.]

Additional information is available in FEMP’s Alternative Fuels & Federal Fleet Vehicle FAQ at http://www.eere.gov/femp/pdfs/federal_fleet_fa.pdf.



FEMP facilitates the Federal Government’s implementation of sound, cost-effective energy management and investment practices to enhance the nation’s energy security and environmental stewardship.



Photo credit: PIX1381

Mike Bourbeau, a part-time flexible letter carrier in Coon Rapids, Minnesota, fills up his flexible fuel vehicle with E85 at a nearby fuel station. Bourbeau works for the USPS Northland District, which covers most of Minnesota and part of Wisconsin.

[energy.gov/femp/pdfs/federal_fleet_fa.pdf](http://www.eere.gov/femp/pdfs/federal_fleet_fa.pdf).

What is an alternative fuel vehicle (AFV)?

EPAct 1992 defines alternative fuel vehicles as vehicles that can operate on alternative fuels. The National Defense Authorization Act (NDAA) of 2008 amended EPAct 1992 to include fuel cell, lean burn, and hybrid technology vehicles (based on definitions in Section 30B of the Internal Revenue Code of 1986). NDAA also added any other type of vehicle that the U.S. Environmental Protection Agency’s (EPA) Administrator demonstrates to the Secretary of Energy would achieve a significant reduction in petroleum consumption.

Alternative fuel vehicles (AFVs) can be dedicated (capable of operating on alternative fuels only) or dual fuel (capable of operating on either alternative or conventional fuels). Dual fuel

vehicles are also known as flexible fuel vehicles (FFVs). [See Appendix B for more detail.]

Federal Requirements

What Federal requirements govern fleet management?

EPAct 1992, EPAct 2005, Executive Order (E.O.) 13423, and the Energy Independence and Security Act (EISA) of 2007 set the following requirements for Federal fleets:

- **EPAct 1992:** Requires 75 percent of new light duty vehicle acquisitions be AFVs.
- **EPAct 2005:** Requires dual fueled AFVs to be fueled with alternative fuels unless the DOE grants a waiver.
- **E.O. 13423:** Requires a two percent reduction in annual petroleum consumption through 2015 compared against a 2005 baseline, a 10 percent

annual increase in alternative fuel consumption through 2015 compared against a 2005 baseline, and that agencies acquire plug-in hybrids if available and reasonable in cost.

- **EISA 2007:** Requires Federal agencies to purchase low greenhouse gas emitting vehicles. EPA is to issue guidance.
- **EISA 2007:** Requires the installation of renewable fuel pumps at Federal fleet fueling centers.
- **EISA 2007:** Contains language similar to, but not consistent with, E.O. 13423 for petroleum reduction and alternative fuel use increases. DOE is conducting a rulemaking to further explain these requirements.

Further information on Federal fleet management and alternative fuel requirements is available on the FEMP Web site at <http://www.eere.energy.gov/femp/regulations/regulations.html>.

What Federal fleets and agencies must comply with Federal fleet requirements?

Agencies subject to the fleet requirements of E.O. 13423, or subject agencies, operate 20 or more motor vehicles within the United States. Subject agencies must also comply with E.O. 13423 and EISA 2007 petroleum reduction and alternative fuel increase requirements. Subject agencies are executive agencies defined by Section 105 of Title 5 U.S.C. excluding the Government Accountability Office (GAO). For the purpose of E.O. 13423, military department defined by Section 102 of the same code are covered under the auspices of the Department of Defense (DOD).

EPA 1992 and EPA 2005 AFV acquisition and alternative fuel use requirements apply only to covered fleets. Covered fleets are those consisting of 20 or more light duty vehicles centrally located in a metropolitan statistical area that are owned, leased, or operated by the Federal Government. Vehicles exempt from



Photo credit: PIX13811

these requirements include law enforcement vehicles, emergency vehicles, test/evaluation vehicles, rental vehicles available to the general public, certain military vehicles, and non-road vehicles (e.g. construction, farm, etc.). [See Appendix C for more detail.]

What are agencies doing to meet these goals?

Agency approaches to meet these goals vary widely. However, the following fundamental strategic goals are generally agreed upon:

- **AFV Acquisition and Alternative Fuel Use:** Maximize procurement of AFVs in the fleet through the normal acquisition process. Also maximize use of alternative fuel in dual fuel AFVs and install alternative fuel infrastructure at high-use fueling centers.
- **Biodiesel Blend Use:** Replace medium and heavy duty gasoline vehicles with diesel vehicles through the normal acquisition process. Maximize use of B20 in diesel vehicles and install B20 fuel infrastructure at high-use fueling centers.

Acquisition of High Efficiency and Advanced Technology Vehicles:

Acquire hybrid electric vehicles or neighborhood electric vehicles as part of the normal acquisition cycle at sites where no E85 infrastructure is present or planned.

Fleet Efficiency Improvements:

Reduce fuel use by implementing fleet operating efficiencies like reducing vehicle miles traveled, improved car sharing, teleconferencing, ride sharing, etc.

Do all alternative fuel vehicles have to use alternative fuel all the time?

Section 701 of EPA 2005 requires dual fueled AFVs to operate on alternative fuels unless the Secretary of Energy determines that alternative fuel is not reasonably available or is unreasonably expensive. DOE guidance defines alternative fuel as not reasonably available if it cannot be obtained within a 15-minute drive or within five miles (one way) from the vehicle's garaged location. It also defines alternative fuel as unreasonably expensive if it costs more per gallon than gasoline at the same station. If these conditions are met, Federal agencies can request a waiver.

Section 701 guidance is available at http://www.eere.energy.gov/femp/pdfs/701_guidance.pdf.

What fleet information must agencies report?

EPA 1992, as amended by the Energy Conservation Reauthorization Act of 1998, requires each agency to report to Congress annually on compliance with Federal fleet requirements. EPA 2005 requires these reports be posted by February 15th of each year. DOE provides links to these reports at http://www.eere.energy.gov/femp/regulations/fleet_reports.html.

DOE and the General Services Administration (GSA) have additional reporting requirements. E.O. 13423 requires DOE to report annually on Federal fleet compliance. This report is available at http://www.eere.energy.gov/femp/regulations/fleet_reports.html.

GSA publishes an annual report on Federal fleet inventory, costs, and miles traveled. This report is at http://www.gsa.gov/Portal/gsa/ep/contentView.do?contentType=GSA_OVERVIEW&contentId=10077.

How can Federal agencies meet AFV acquisition requirements?

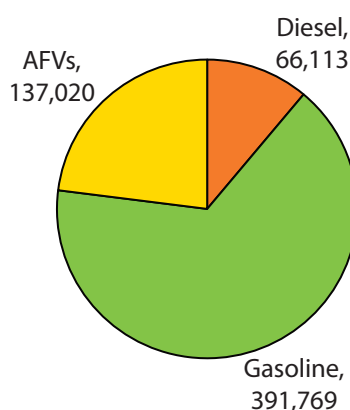
AFV acquisition credits are used to determine if Federal agencies meet the EPA 1992 annual AFV acquisition requirements of 75 percent. AFV credits are based on type of fuel and vehicle as shown in the table above right. Agencies must accumulate 75 credits per 100 covered vehicles purchased to comply.

Federal Inventory and Fuel Consumption

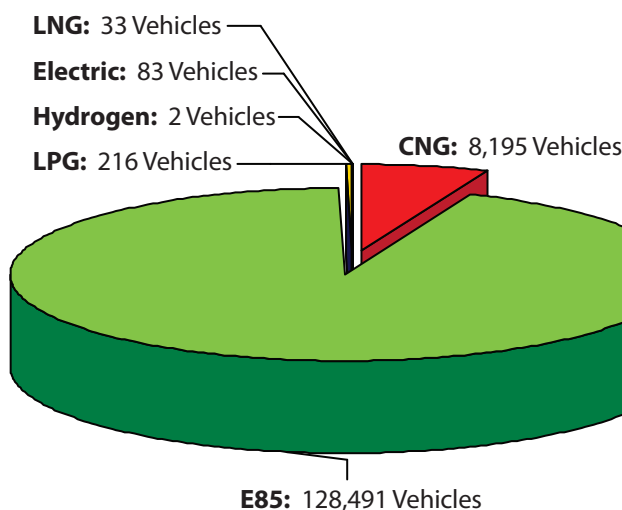
How many and what types of vehicles are owned by the Federal Government?

In fiscal year 2008, the Federal fleet inventory contained nearly 600,000 domestic vehicles. Twenty-three percent of these vehicles (137,020 vehicles) were AFVs.

Credits	Situation
1	Dual fuel (flexible or bi-fuel) vehicles, regardless of vehicle size class as long as the vehicle meets the AFV definition of EPA 1992
2	Dedicated light duty AFVs (includes battery-electric vehicles)
3	Dedicated medium duty AFVs
4	Dedicated heavy duty AFVs
1	Every 450 gallons of pure biodiesel (equivalent to 2,250 gallons of B20) used in diesel vehicles; cannot exceed 50 percent of EPA requirements
1	Fuel cell vehicle
1	Lean burn technology vehicle
1	Hybrid vehicle (includes plug-in hybrid vehicles)
1	Other vehicles achieving significant reduction in petroleum consumption



Covered Federal Fleet Inventory



EPA AFV Inventory

E85 vehicles, which run on a blend of 85 percent ethanol and 15 percent gasoline, make up the largest percentage of alternative fuel vehicles, followed by compressed natural gas vehicles. Although diesel vehicles often use B20, they are not considered AFVs.

How much petroleum does the Federal Government use in its vehicles?

In fiscal year 2008, the Federal Government consumed approximately 272 million gasoline gallons equivalent (GGE) of covered petroleum. This is a 4.5 percent reduction compared to fiscal year 2005. Federal agencies subject to E.O. 13423 were 1.5 percent short of achieving the E.O. 13423 fiscal year 2008 goal of 267,972,000 GGE. GGE measures the amount of alternative fuel required to equal the energy content of one liquid gallon of gasoline.

How much alternative fuel do Federal vehicles use?

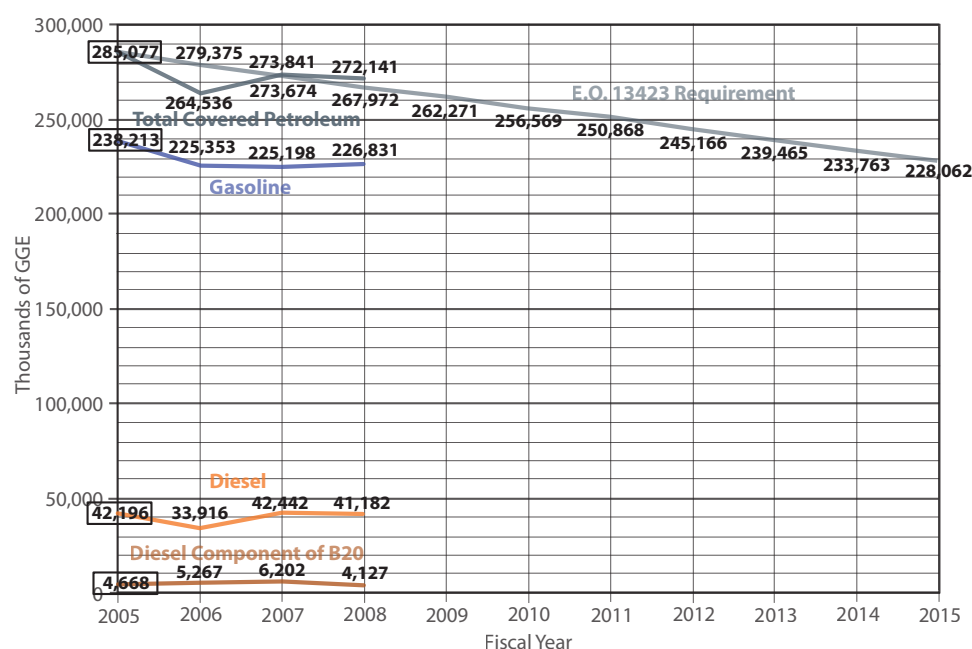
In fiscal year 2008, covered Federal agencies used a combined 8,848,000 GGE of alternative fuel, which represents a 63 percent increase from the fiscal year 2005 combined alternative fuel baseline. Covered Federal agencies exceeded the combined fiscal year 2008 E.O. 13423 alternative fuel consumption goal of 7,221,000 GGE by over 1.6 million GGE.

Barriers and Opportunities

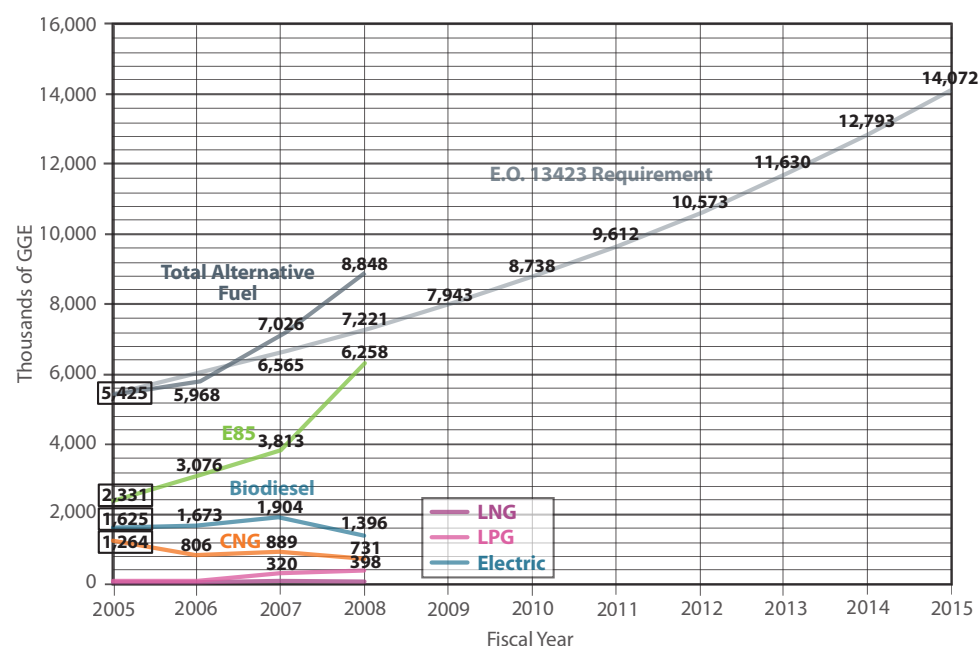
What barriers exist for reducing petroleum consumption and increasing alternative fuel use?

Three common barriers exist for Federal agencies working to reduce petroleum consumption and increase alternative fuel use:

- **Availability:** More than half of current Federal AFVs are waived from using alternative fuel. As a result of a forum between Federal fleet managers and alternative fuel providers, DOE made public the locations of Federal flexible fuel vehicles that do not currently have access to alternative fuel. Approximately



Total Petroleum Use by Covered Fleets



Alternative Fuel Use by Covered Fleet

60 alternative fuel infrastructure projects have since been completed across Alabama, California, Florida, Georgia, Maryland, Mississippi, North Carolina, Texas, and Virginia. In total, more than 1,000 waived Federal fleet vehicles now have access to alternative fuel.

- **Efficient Vehicle Technology:** Historically, most competitively priced AFVs were available only with

powerful engines, often making them less efficient than the conventionally fueled alternative. However, this trend has begun to change. To increase the availability of fuel efficient AFVs, DOE worked to add highly efficient vehicles to the list of qualifying AFVs. Highly efficient vehicles help agencies reduce petroleum consumption where alternative fuel is not available. Advanced technology

plug-in hybrid and electric vehicles are not currently commercially available.

- **Fuel Coding and Reporting:** Fuel purchases are often improperly coded for fuel type at fueling stations. The improper coding leads to poor data quality on the amount of alternative fuel that Federal fleets are using. In 2007, DOE commissioned a study that quantified the problem and identified barriers to correctly identifying alternative fuel purchases with fleet cards. Since then, Visa publicly announced changes to address this problem. An October 2008 GAO report also highlighted the problem of fuel coding data quality. GSA and DOE are currently working with fuel providers and credit card companies to encourage deployment of more accurate fuel coding systems.

Where is alternative fuel available?

Federal agencies can apply for an alternative fuel vehicle waiver per Section 701 of EPCA 2005 if alternative fuel is not reasonably available. While waivers were allocated to the Federal Government in 2009, more alternative fuel is becoming available across the U.S.

As of December 2008, more than 1,900 stations offer E85 in the U.S. compared to approximately 162,000 gasoline stations. DOE continually updates a database of nationwide alternative fuel infrastructure, which is available through the Alternative Fuels and Advanced Vehicles Data Center Station Locator at http://www.afdc.energy.gov/afdc/stations/find_station.php.

What resources are available to Federal fleet managers?

FEMP services include online summaries of legislative requirements, guidance documents, reporting requirements, field technical support teams, and interagency coordination. More information is available on the FEMP Web site at <http://www.femp.energy.gov>.

If questions remain, contact:

Brad Gustafson
Federal Energy Management
Program
202-586-5865
brad.gustafson@ee.doe.gov

Amanda Sahl
Federal Energy Management
Program
202-586-1662
amanda.sahl@ee.doe.gov

Hayes Jones
Federal Energy Management
Program
202-586-8873
hayes.jones@ee.doe.gov

Appendix A: Definitions of Alternative Fuel

The definition of alternative fuel is derived primarily from Section 301(2) of the Energy Policy Act of 1992 (codified at 42 U.S.C. 13211(2)) which states:

The term ‘alternative fuel’ means methanol, ethanol, and other alcohols; mixtures containing 85 percent or more (or such other percentage, but not less than 80 percent, as determined by the Secretary, by rule, to provide for requirements relating to cold start, safety, or vehicle functions) by volume of methanol, ethanol, and other alcohols with gasoline or other fuels; natural gas; liquefied petroleum gas; hydrogen; electricity;

and any other fuel the Secretary determines, by rule, is substantially not petroleum and would yield substantial energy security benefits and substantial environmental benefits.

Several additions have been made to this list along the way, both by legislative and regulatory processes.

- **Liquid Fuels from Natural Gas:** In December 2000, in the Consolidated Appropriations Act of 2001 (P.L. 106-554), Congress added the words “including liquid fuels domestically produced from natural gas” to the definition list.
- **Neat (100%) Biodiesel (B100):** During development of the Final Rule for the Alternative Fuel Transportation Program (10 C.F.R. Part 490, which included the regulation covering State and Fuel Provider Fleets), DOE added “(including neat biodiesel)” to the list of fuels. The rulemaking is available at 61 Federal Register 10621, March 14, 1996, or http://www.eere.energy.gov/vehicle-sandfuels/epact/pdfs/fed_reg.pdf.
- **Biodiesel Blends:** The Energy Conservation Reauthorization Act of 1998 (P.L. 105-388, Section 7) allows covered fleets to purchase biodiesel in blends of 20 percent or more for use. For every 450 gallons of B100, agency fleets receive a credit equal to the acquisition of an alternative fuel vehicle. Guidance on biodiesel



Photo credit: PIX15132

for Federal fleets is contained within the Executive Order 13149 guidance document available at <http://www.eere.energy.gov/vehiclesandfuels/epact/pdfs/eo13149.pdf>.

Appendix B: Definitions of Alternative Fuel Vehicles

The following legislation and guidance defines alternative fuel vehicles:

Energy Policy Act of 1992 (42 USC Section 13211):

(3) the term “alternative fueled vehicle” means a dedicated vehicle or a dual fueled vehicle.

(6) the term “dedicated vehicle” means:

(A) a dedicated automobile, as such term is defined in section 32901 (a)(7) of title 49; or

(B) a motor vehicle, other than an automobile, that operates solely on alternative fuel.

(8) the term “dual fueled vehicle” means:

(A) dual fueled automobile, as such term is defined in section 32901 (a)(8) of title 49; or

(B) a motor vehicle, other than an automobile, that is capable of operating on alternative fuel and is capable of operating on gasoline or diesel fuel.

National Defense Authorization Act of 2008:

Section 2862 of the National Defense Authorization Act (NDAA) of 2008 amended the Energy Policy Act of 1992, (EPA 1992, 42 U.S.C. 13211(3)) by adding several new vehicles to the definition of “alternative fueled vehicle.” Newly defined alternative fueled vehicles (AFVs) include the following four types of vehicles:

- A new qualified fuel cell motor vehicle (as defined in section 30B(b)(3) of the Internal Revenue Code of 1986);
- A new advanced lean burn technology motor vehicle (as defined in section 30B(c)(3) of that Code);
- A new qualified hybrid motor vehicle (as defined in section 30B(d)(3) of that Code); and
- Any other type of vehicle that the Administrator of the Environmental Protection Agency demonstrates to the Secretary of Energy would achieve a significant reduction in petroleum consumption. [There are currently no vehicles that meet this definition.]

A full list of definitions is listed in U.S. Code Title 49, Subtitle VI, Part C, Chapter 329, Section 32901 entitled Definitions available at http://www4.law.cornell.edu/uscode/uscode49/usc_sec_49_00032901----000-.html.

Draft NDAA guidance is available online at http://www.eere.energy.gov/femp/pdfs/ndaa_guidance.pdf.

Appendix C: Definitions of Covered and Non-Covered Federal Fleets

The Energy Policy Act of 1992 (42 U.S.C. 13211) defines the following:

The term ‘Federal fleet’ means 20 or more light duty motor vehicles, located in a 1980 metropolitan statistical area or consolidated metropolitan statistical area that are centrally fueled or capable of being centrally fueled and are owned, operated, leased, or otherwise controlled by or assigned to any Federal executive department, military department, Government

corporation, independent establishment, or executive agency, the United States Postal Service, the Congress, the courts of the United States, or the Executive Office of the President. Such term does not include—

(A) motor vehicles held for lease or rental to the general public;

(B) motor vehicles used for motor vehicle manufacturer product evaluations or tests;

(C) law enforcement vehicles;

(D) emergency vehicles;

(E) motor vehicles acquired and used for military purposes that the Secretary of Defense has certified to the Secretary must be exempt for national security reasons; or

(F) nonroad vehicles, including farm and construction vehicles.

Executive Order 13423 covers all agencies that operate 20 or more motor vehicles within the U.S.