

**U.S. Department of Homeland Security  
Alternative Fuel Vehicle Program Report for Fiscal Year 2005  
February 7, 2006**

The U.S. Department of Homeland Security (DHS) Alternative Fuel Vehicle (AFV) Program Report for Fiscal Year 2005 presents the Department's data on the number of alternative fuel vehicles acquired in fiscal year (FY) 2005, and its planned acquisitions and projections for FY 2006 and FY 2007. The report has been developed in accordance with the Energy Policy Act of 1992 (EPAAct) (42 U.S.C. 13211-13219) as amended by the Energy Conservation Reauthorization Act of 1998 (Public Law 105-388) (ECRA), and Executive Order (EO) 13149 (signed by the President in April 2000). Of the 949 covered vehicles DHS acquired in FY 2005, 637 were required to be AFVs in order to comply with the 75 percent acquisition requirement mandated by EPAAct. Of the 949 vehicles acquired, 859 or 91 percent were AFVs. Our projected acquisitions for FY 2006 and FY 2007 indicate sustained compliance, with acquiring 620 (of 648) and 850 (of 870) AFVs respectively.

**Legislative Requirements**

The Energy Policy Act of 1992 (EPAAct) requires that 75 percent of all covered light-duty vehicles acquired for Federal fleets in FY 2001 and beyond must be AFVs (where the fleets have 20 or more vehicles, are capable of being centrally fueled, and are operated in a metropolitan statistical (MSA) area with a population of more than 250,000 based on the 1980 census). Certain emergency, law enforcement, and national defense vehicles are exempt from these requirements. EPAAct also sets a goal of using replacement fuels to displace at least 30 percent of the projected consumption of motor fuel in the United States annually by the year 2010. ECRA amended the EPAAct to allow one alternative fuel vehicle acquisition credit for every 450 gallons of pure biodiesel fuel consumed in vehicles over 8,500 pounds gross vehicle weight rating. "Biodiesel credits" may fulfill up to 50 percent of an agency's EPAAct requirements. The head of each Federal agency must also prepare and submit a report to Congress outlining the agency's AFV acquisitions and future plans by February 15th each year. EO 13149 directs Federal agencies operating a fleet of 20 or more vehicles within the United States to reduce their annual petroleum consumption by at least 20 percent by the end of FY 2005 (compared to FY 1999 levels) by using alternative fuels in AFVs more than 50 percent of the time, improving the average fuel economy of new light-duty petroleum-fueled vehicle acquisitions by one mpg by FY 2002, and 3 mpg by FY 2005, and using other fleet efficiency measures.

**Homeland Security Approach to Compliance with EPAAct and EO 13149**

Due to the manner in which the Department was created, challenges were encountered by consolidating fleets and AFV strategies from a number of disparate organizations with extremely diverse missions and operating requirements. Each component currently operates, maintains, acquires, and funds its vehicle program. Overall, 90% of the Department's fleet is used for law enforcement or is operated outside of an MSA, resulting in ten percent of the Department's fleet covered under the Act. This includes the majority of DHS owned vehicles, as well as a portion of those leased from the General Services Administration (GSA).

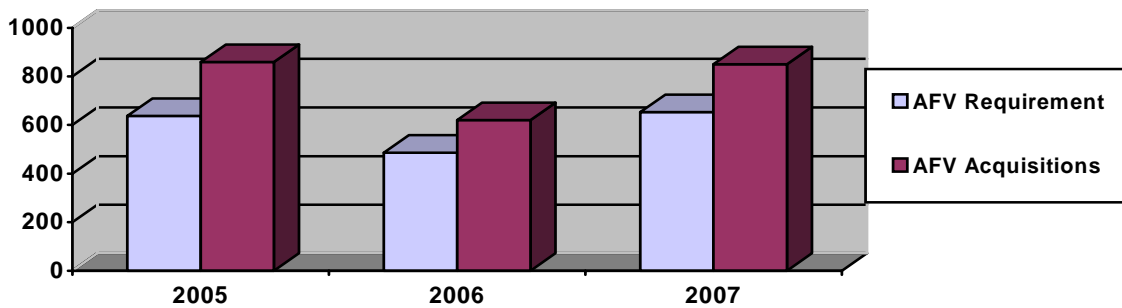
To achieve compliance with the legislative mandates of EPAAct and EO 13149, DHS will acquire 75 percent of new covered light-duty vehicles as AFVs, and use alternative fuel in these vehicles

a majority of the time, where the vehicles and alternative fuels are readily available and do not adversely affect mission accomplishment. The decision to take advantage of a surcharge program that will add to the cost of every vehicle leased through GSA to help cover the higher incremental cost of many AFV models (compared to conventional vehicles) will rest with each component. Factors that will be analyzed include: mission needs; availability of alternative fuels; and vehicle fund availability.

DHS will also endeavor to continue to acquire light duty vehicles with a higher fuel economy of 3 mpg in FY 2006, consistent with mission suitability. DHS has investigated the possibility of establishing additional refueling facilities; however, a significant portion of the fleet not already using these facilities neither start from nor returns to a common location. The Department will also investigate the possibility of refueling at sites operated by other Federal agencies.

### DHS Fleet Compliance for FY 2005

Figure 1 is a graphical depiction of AFV acquisitions by the Department's covered fleet in fiscal year 2005 and projections for FY 2006 and FY 2007. DHS acquired 949 covered light-duty vehicles (LDVs) in fiscal year 2005, of which 859 were AFVs.



**Figure 1. Summary of Homeland Security's FY 2005 AFV Acquisitions**

In FY 2005, the Department acquired 2,193 law enforcement vehicles via purchases and commercial leases that were not "covered" vehicles under EPO and EO 13149. The law enforcement light duty vehicles acquired in FY 2005 included both normal fleet replenishment and fleet expansions due to added mission requirements. DHS has continued to urge its components to acquire AFV capable law enforcement vehicles where available and compatible with the mission.

### **Special Projects Related to AFV and Infrastructure Acquisitions**

The Department has investigated the potential for “fast fill” compressed natural gas refueling facilities at the Federal Law Enforcement Training Center (FLETC) campus in Brunswick, GA and the Nebraska Avenue Complex in Washington, DC. Unfortunately, the number of dedicated or bi-fuel CNG vehicles offered by manufacturers is decreasing in numbers and types. The potential for placing alternative fuel vehicles at major air or seaports which have refueling facilities on-site is also being investigated and the Transportation Security Administration has committed to ordering all E-85 capable light-duty vehicles. Additionally, B20 Bio-diesel is being considered for Border Patrol sectors having their own refueling capabilities.

### **Alternative Fuel Use in FY 2005**

Table 2 presents alternative fuel use data for the DHS fleets in FY 2005. The majority of covered vehicles acquired by DHS and its component fleets are leased from GSA, and the leasing contract folds in the maintenance and fuel costs for the vehicles. This is accomplished by the use of a GSA credit card that the fleets use to purchase alternative fuel. However, since product code standards are not uniform among suppliers of alternative fuels (e.g., ethanol, CNG, or E-85), it is impossible for credit card vendors to accurately track the purchase of alternative fuels. A limited exception is natural gas, which is on-site at FLETC, allowing it to provide an accurate accounting of fuel used.

**Table 2. Homeland Security Fuel Use in FY 2005**

<b>Fuel Type</b>	<b>Quantity</b>	<b>Unit</b>
Biodiesel – B100		Gallons
CNG	1,737	Gallons @ 3,600 psi, 70°F
CNG		Hundred cu. ft.
Diesel	1,437,560	Gallons
E-85	220,897	Gallons
Gasoline	15,819,324	Gallons
Methanol		Gallons
Propane		Gallons

### **Homeland Security’s Fleet AFV Acquisitions for FY 2006 and FY 2007**

The DHS supports the goals of the EPAct and EO 13149 and has urged its components to comply with the requirements to the maximum extent possible, including exempt vehicles. The following challenges may impede our progress in meeting these goals:

- Insufficient availability of dedicated or bi-fuel AFVs suitable for the intended missions, whether from GSA, a commercial lease, or directly from the manufacturer;
- GSA is the first choice for covered vehicles. If the required vehicles are not available through GSA Auto Choice, purchasing from a dealer through GSA Express Desk or commercial leasing costs may be an impediment even if the required vehicles are available;
- The additional incremental cost of dedicated AFVs; which can be significant and must be covered from appropriated funds;

- Except for some Border Patrol and FLETC locations, the DHS fleet is dependent on commercial facilities for refueling and those that do refuel at centralized locations are primarily law-enforcement;
- Where CNG may be available from a public utility or municipal government, each one has its own payment system or billing process, and a separate agreement must be established with each one. Different fueling systems also exist for CNG and the vehicles must use compatible sites or carry adapters; and
- Resale value of dedicated or bi-fuel AFVs, as all Department-owned vehicles are replaced using exchange/sale procedures to help reduce the need for appropriated funds when replacing the vehicle.

## **Petroleum Savings**

It is difficult to project petroleum savings for FY 2006 and FY 2007 based upon the estimated availability of flex-fuel (E-85 capable) and hybrid vehicles, improvements in fuel economy, and fleet efficiency measures. Also, as was noted in prior year reporting, DHS did not exist as a Department until mid-FY 2003, and capturing prior year data to establish the FY 1999 baseline year for petroleum usage was extremely difficult, and in some cases impossible.

## **Summary**

As detailed in this report, DHS has acquired, to the extent possible, AFVs in accordance with the EPlact for FY 2005 and projects sustained compliance in FY 2006. The Department will continue to implement its strategy for complying with the requirements of EO 13149, with the goal of a continuing reduction in the fleet's annual petroleum consumption. This will be done by:

- Encouraging the components to acquire the most fuel-efficient vehicle suited for the task;
- Urging that the number of miles driven by the components be reduced by:
  - Consolidating trips;
  - Using taxis or public transportation to the maximum extent possible;
  - Where possible, meeting electronically rather than face-to-face;
- Implementing a Department-wide fleet management information system that will allow for analysis of overall fleet data and trends, providing opportunities for consolidations that will enhance efficiency and mileage.
- Building on and formalizing a Department-wide Vehicle Authorization Document (VAD) process which determines the appropriate vehicle requirements for each component based on mission, staffing, and location; and
- Reviewing component motor vehicle fleet acquisitions and GSA vehicle assignments.