U.S. Department of Homeland Security
Fleet AFV Program Report for Fiscal Year 2004
March 16, 2005

The U.S. Department of Homeland Security (DHS) Fleet AFV Program Report for Fiscal Year 2004 presents the Department's data on the number of alternative fuel vehicles (AFVs) acquired in fiscal year (FY) 2004, and its planned acquisitions and projections for FY 2005 and FY 2006. The report has been developed in accordance with the Energy Policy Act of 1992 (EPAct) (42 U.S.C. 13201-13556) 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 704 covered vehicles DHS acquired in FY 2004, 528 were required to be AFV's in order to comply with the 75 percent acquisition requirement mandated by EPAct. Of the 704, 683 or 97 percent were AFV's. Our plans indicate an improved level of compliance for FY 2005 and FY 2006 with projected acquisitions of 900 and 950 AFV's respectively.

Legislative Requirements

The Energy Policy Act of 1992 (EPAct) requires that 75 percent of all covered light-duty vehicles acquired for Federal fleets in FY 1999 and beyond must be AFVs (where the fleets have 20 or more vehicles, are capable of being centrally fueled, and are located in a metropolitan statistical area (MSA) 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. EPAct 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 EPAct 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 no more than 50 percent of an agency's EPAct 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 November 13th 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 EPAct and E.O. 13149

Due to the manner in which the Department was created, as well as its varied and diverse missions, DHS was faced with the challenge of consolidating fleets and AFV strategies from a number of disparate organizations with extremely diverse missions and operating requirements. Each organizational element (OE) currently operates, maintains, acquires, and funds its vehicle program. Overall, 90% of the Department's fleet, including the majority of DHS owned vehicles as well as a portion of those leased from the General Services Administration (GSA), 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.

To achieve compliance with the legislative mandates of EPAct and E.O. 13149, DHS must 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 new surcharge program that will add $10 monthly 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 OE. Factors that will be analyzed include: mission needs; availability of alternative fuels; and vehicle fund availability.

DHS will also endeavor to acquire light duty vehicles with a higher fuel economy of 3 mpg in FY 2005, consistent with mission suitability. DHS has investigated the possibility of establishing its own refueling facilities; however, a significant portion of the fleet neither starts from nor returns to a common location. The Department will also investigate the possibility of refueling at commercial facilities or those sites operated by other Federal agencies where alternative fuels are available.

DHS Fleet Compliance for FY 2004

Figure 1 is a graphical depiction of AFV acquisitions by the Department's covered fleet in fiscal year 2004 and projections for FY 2005 and FY 2006. DHS acquired 704 covered light-duty vehicles (LDVs) in fiscal year 2004, of which 528 were required to be AFVs. 683 AFVs were actually acquired.

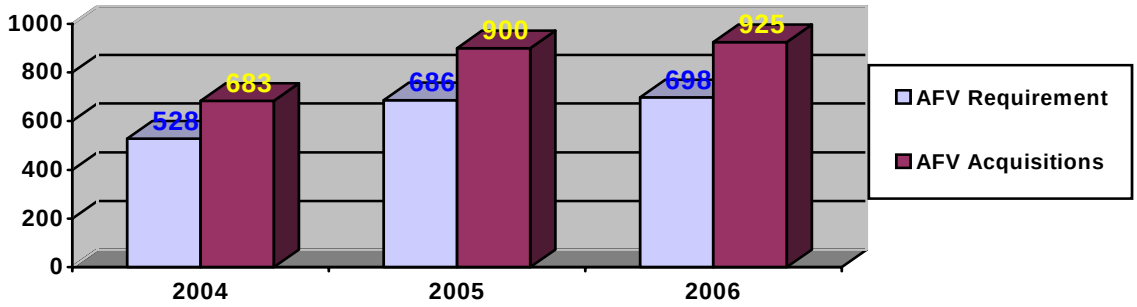

Figure 1. Summary of Homeland Security's FY 2004 AFV Acquisitions

In FY 2004, the Department acquired 2,601 law enforcement vehicles via purchases and commercial leases that were not "covered" vehicles under EPAct and EO 13149. The law enforcement light duty vehicles acquired in FY 2004 included both normal fleet replenishment and fleet expansions due to added mission requirements.

Special Projects Related to AFV and Infrastructure Acquisitions

The Department is investigating 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. 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 (ethanol) capable light-duty vehicles. Additionally, B20 Bio-diesel (20% Bio-diesel) is being considered for Border Patrol sectors having their own refueling capabilities.

Alternative Fuel Use in FY 2004

Table 2 presents alternative fuel use data for the DHS covered fleets in FY 2004. The majority of covered vehicles acquired by the 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 2004

Fuel Type	Quantity	Unit
Biodiesel – B100		Gallons
CNG	3,327	Gallons @ 3,600 psi, 70^{0}F
CNG		Hundred cu. ft.
Diesel	1,150,556	Gallons
E-85	1,441,940	Gallons
Gasoline	20,033,328	Gallons
Methanol		Gallons
Propane	296	Gallons

Homeland Security's Fleet AFV Acquisitions for FY 2005 and FY 2006

The DHS supports the goals of the EPAct and EO13149. DHS requires its OEs to comply with the statutes to the maximum extent possible, even for those vehicles not covered. 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;
- DHS is required to purchase passenger vehicles through GSA. If the required vehicles are not available through purchase or GSA fleet lease, the higher costs of commercial leasing or purchase from a dealer's inventory may be an impediment even if the required vehicles are available from those sources;
- The additional incremental cost of dedicated and flex fuel AFVs which may be significant and must be covered from appropriated funds;
- Except for some Border Patrol and Federal Law Enforcement Training Center (FLETC) locations, the DHS fleet is primarily dependent on commercial facilities for refueling;
- 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. 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 2005 and FY 2006 based upon the estimated availability of flex-fuel (E-85 capable) and hybrid vehicles, improvements in fuel economy, and fleet efficiency measures. Although DHS did not exist as a Department until mid FY 2003, working with the Department of Energy a 1999 baseline of 2,579,295 gallons was created for the covered fleet based on available historical data. Of this amount, 2,423,503 gallons were attributed to gasoline and 155,789 gallons to diesel fuel. Usage in FY 2004 was 2,634,996 gallons with 2,475,746 gallons being gasoline, and 159,250 gallons being diesel fuel.

Summary

As detailed in this report, in FY 2004 DHS acquired AFVs in accordance with the EPAct. DHS projects continued compliance in FY 2005. The Department will continue to implement its strategy for complying with the requirements of Executive Order 13149, with the goal of at least a 20 percent reduction in the fleet's annual petroleum consumption in FY 2005. Actions to be taken in FY 2005 include:

- Encouraging the OEs to acquire the most fuel-efficient vehicle suited for the task;
- Urging that the number of miles driven by the OEs be reduced by:
    - Consolidating trips;
    - Using taxis or public transportation to the maximum extent possible;
    - Where possible, meeting electronically rather than face-to-face;
- Building on and formalizing a Department-wide Vehicle Authorization Document (VAD) process which determines the appropriate vehicle requirements for each OE based on mission, staffing, and location; and
- Reviewing OE acquisitions and GSA vehicle assignments for areas of improvement; and
- Increasing petroleum displacement through the use of alternative fuels by increasing the amount of E-85 usage and implementing the use of B-20 where in-house facilities exist for fueling diesel vehicles.

Actual Department of Homeland Security FY 2004 Vehicle Acquisitions					
Actual FY 2004 Light-Duty Vehicle Acquisitions					**Total Vehicle Inventory**
		Leased	**Purchased**	**Total**	
Total number of Light-Duty (8,500 GVWR) - Vehicle Acquisitions		1,066	1,774	2,840	30,082
Exemptions	Fleet Size	0	8	8	65
	Geographic	0	72	72	804
	Law Enforcement	288	1,555	1,843	26,459
	Non-MSA Operation (fleet)	0	17	17	72
	Non-MSA Operation (vehicles)	196	0	196	*(n/a)*
EPACT Covered Acquisitions		**582**	**122**	**704**	**2,682**
Actual FY 2004 AFV Acquisitions					**Total Vehicle Inventory**
Vehicle		**Leased**	**Purchased**	**Total**	
Sedan	CNG Bi-Fuel Subcompact	2	0	2	4
Sedan	CNG Dedicated Subcompact	0	0	0	1
Sedan	CNG Bi-Fuel Compact	1	0	1	9
Sedan	E-85 Flex-Fuel Compact	173	32	205	422
Sedan	E-85 Flex-Fuel Midsize	65	49	114	207
Pickup 4x2	CNG Bi-Fuel	3	0	3	5
Pickup 4x2	CNG Dedicated	0	0	0	1
Pickup 4x2	E-85 Flex-Fuel	10	1	11	37
Pickup 4x2	LPG Bi-Fuel	1	0	1	2
Pickup 4x4	E-85 Flex-Fuel	20	0	20	8
SUV 4x2	E-85 Flex-Fuel	14	44	58	54
SUV 4x4	E-85 Flex-Fuel	87	104	191	238
Minivan 4x2 (Passenger)	E-85 Flex-Fuel	58	10	68	432
Van 4x2 (Passenger)	E-85 Flex-Fuel	0	4	4	5
Pickup MD	CNG Bi-Fuel	0	0	0	1
Van MD (Passenger)	CNG Bi-Fuel	5	0	5	4
Van MD (Passenger)	CNG Dedicated	0	0	0	3
Van MD (Cargo)	CNG Dedicated	0	0	0	1
HD 16,001 + GVWR	Electric Dedicated	0	0	0	4
HD 16,001 + GVWR	LPG Dedicated	0	0	0	1
Total Number of AFV Acquisitions		**439**	**244**	**683**	**1,439**
Zero Emission Vehicle Credits		0	0	0	
Dedicated Light-Duty AFV Credits		0	0	0	
Dedicated Medium-Duty AFV Credits		0	0	0	
Dedicated Heavy-Duty AFV Credits		0	0	0	
Biodiesel Fuel Usage Credits - Actual				0	
Total AFV Acquisitions with Credits		**439**	**244**	**683**	
AFV Percentage of Covered Light-Duty Vehicle Acquisition				**97 %**	

Planned Department of Homeland Security FY 2005 Vehicle Acquisitions				
Planned FY 2005 Light-Duty Vehicle Acquisitions				
		Leased	**Purchased**	**Total**
Total number of Light-Duty (8,500 GVWR) - Vehicle Acquisitions		547	4,447	4,994
Exemptions	Fleet Size	0	2	2
	Geographic	0	52	52
	Law Enforcement	94	4,364	4,458
	Non-MSA Operation (fleet)	0	0	0
	Non-MSA Operation (vehicles)	81	0	81
EPACT Covered Acquisitions		**372**	**29**	**401**
Planned FY 2005 AFV Acquisitions				
Vehicle		**Leased**	**Purchased**	**Total**
Sedan	E-85 Flex-Fuel Compact	161	0	161
Sedan	E-85 Flex-Fuel Midsize	13	33	46
Pickup 4x2	E-85 Flex-Fuel	1	2	3
Pickup 4x4	E-85 Flex-Fuel	11	0	11
SUV 4x2	E-85 Flex-Fuel	6	46	52
SUV 4x4	E-85 Flex-Fuel	84	89	173
Minivan 4x2 (Passenger)	E-85 Flex-Fuel	99	68	167
Total Number of AFV Acquisitions		**375**	**238**	**613**
Zero Emission Vehicle Credits		0	0	0
Dedicated Light-Duty AFV Credits		0	0	0
Dedicated Medium-Duty AFV Credits		0	0	0
Dedicated Heavy-Duty AFV Credits		0	0	0
Biodiesel Fuel Usage Credits - Planned				0
Total AFV Acquisitions with Credits		**375**	**238**	**613**
AFV Percentage of Covered Light-Duty Vehicle Acquisition				**153 %**

Projected Department of Homeland Security FY 2006 Vehicle Acquisitions				
Projected FY 2006 Light-Duty Vehicle Acquisitions				
		Leased	**Purchased**	**Total**
Total number of Light-Duty (8,500 GVWR) - Vehicle Acquisitions		486	4,552	5,038
Exemptions	Fleet Size	0	0	0
	Geographic	0	61	61
	Law Enforcement	76	4,362	4,438
	Non-MSA Operation (fleet)	0	18	18
	Non-MSA Operation (vehicles)	0	0	0
EPACT Covered Acquisitions		**410**	**111**	**521**
Projected FY 2006 AFV Acquisitions				
Vehicle		**Leased**	**Purchased**	**Total**
Sedan	E-85 Flex-Fuel Compact	131	10	141

Sedan	E-85 Flex-Fuel Midsize	17	120	137
Pickup 4x2	E-85 Flex-Fuel	30	2	32
Pickup 4x4	E-85 Flex-Fuel	10	0	10
SUV 4x2	E-85 Flex-Fuel	8	46	54
SUV 4x4	E-85 Flex-Fuel	75	114	189
Minivan 4x2 (Passenger)	E-85 Flex-Fuel	106	68	174
Minivan 4x2 (Cargo)	E-85 Flex-Fuel	4	0	4
Van 4x2 (Passenger)	E-85 Flex-Fuel	15	0	15
Total Number of AFV Acquisitions		**396**	**360**	**756**
Zero Emission Vehicle Credits		0	0	0
Dedicated Light-Duty AFV Credits		0	0	0
Dedicated Medium-Duty AFV Credits		0	0	0
Dedicated Heavy-Duty AFV Credits		0	0	0
Biodiesel Fuel Usage Credits - Projected				4
Total AFV Acquisitions with Credits		**396**	**360**	**760**
AFV Percentage of Covered Light-Duty Vehicle Acquisition				**146 %**