

## **U.S. Department of Housing and Urban Development Fleet AFV Program Report for Fiscal Year 2004**

This report presents the Department's data on the number of alternative fuel vehicles (AFVs) acquired in Fiscal Year (FY) 2004, and its planned and projected acquisitions for FY 2005 and FY 2006. The report has been developed in accordance with the Energy Policy Act of 1992 (42 U.S.C. 13211-13219) as amended by the Energy Conservation Reauthorization Act of 1998 (Public Law 105-388) (ECRA), and with Executive Order 13149 (signed by the President in April 2000). As shown in Figure 1, HUD exceeded the AFV-acquisition requirement by acquiring 2 total credits in FY 2004. Plans indicate an even greater level of compliance for FY 2005 and FY 2006 with acquisitions of 10 and 10 total credits, respectively. Detailed vehicle acquisition tables are shown in Appendix A.

The one-mile per gallon (mpg) fleet acquisition average fuel economy increase was not achieved in FY 2004. It should be noted that HUD started out with a favorably high FY1999 23 mpg baseline. With few available vehicle acquisition options greater than 23 mpg, it will be difficult to achieve this fuel economy increase. HUD will continue to improve its verification processes to ensure that acquisitions meet the mpg requirement wherever practicable.

### **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 operated in a metropolitan statistical 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. The EPAct also sets a goal of using replacement fuels to displace at least 30 percent of each year's projected consumption of motor fuel in the United States by the year 2010. The **Energy Conservation and Reauthorization Act of 1998** amended the EPAct to allow one alternative fuel vehicle acquisition credit for every 450 gallons of pure biodiesel fuel consumed in vehicles with a gross vehicle weight rating greater than 8,500 pounds. "Biodiesel credits" may fulfill up to 50 percent of an agency's EPAct requirements. The head of each federal agency must also prepare and submit annually a report to Congress outlining the agency's AFV acquisitions and future plans. **Executive Order 13149 (E.O. 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 1 mpg by FY 2002 and 3 mpg by FY 2005, and using other fleet efficiency measures.

## HUD Approach to Compliance with EPCa and E.O. 13149

To achieve compliance with the legislative mandates of the EPCa and E.O. 13149, HUD has developed a compliance strategy consisting of three primary elements: (1) AFV acquisitions and alternative fuel use; (2) higher fuel economy vehicles; and (3) fleet efficiency improvements.

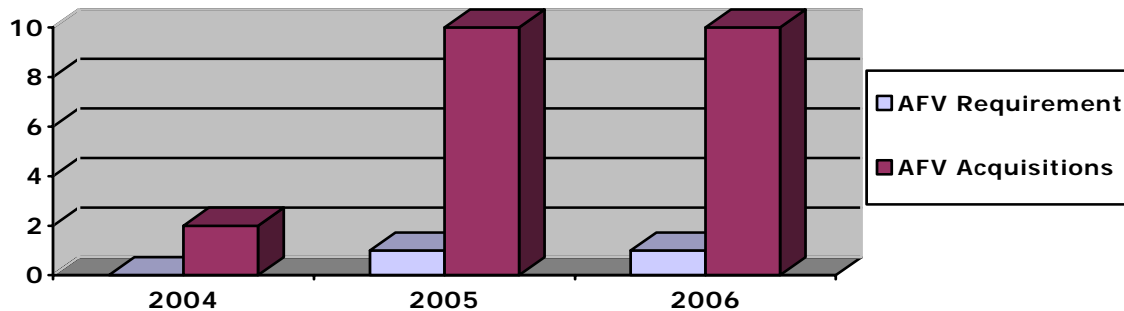
The first strategy element is the acquisition of AFVs and use of alternative fuels. AFVs are the most effective means of reducing petroleum fuel use as long as they operate on alternative fuels. Therefore, key factors in assigning AFVs to fleet locations are the availability of on-site or public AFV refueling stations and use of alternative fuels in these vehicles the majority of the time. There are additional costs associated with using AFVs compared with conventional vehicles, so careful consideration must be given for placing these vehicles in appropriate fleets.

The second element of the strategy, acquisition of higher fuel economy vehicles, is another practical means of reducing fleet fuel consumption. It is also a necessary part of the strategy, since E.O. 13149 requires improvements in federal fleet fuel economy as one of its performance measurements for compliance. Specifically, the Executive Order requires a 1.0 mpg fuel economy increase by FY 2002 and a 3.0 mpg fuel economy increase by FY 2005 for light duty petroleum-fueled vehicles acquired as compared with the FY 1999 baseline. Individual fleet locations must achieve these fuel economy increases by acquiring smaller vehicles, vehicles with smaller engines, and vehicles that are most appropriate for mission requirements. For example, a four wheel-drive pickup may not be necessary for local routine city travel.

The final element of the HUD strategy, fleet efficiency improvements, relates to how the fleet is managed, how vehicle trips are made, and what routes are taken, among other factors. Senior agency fleet managers continue to assess their fleets' efficiency in accomplishing their missions.

### HUD Fleet Compliance for FY 2004

Figure 1 is a graphical depiction of AFV acquisitions by HUD's fleet in FY 2004 and projections for FYs 2005 and 2006. HUD acquired no covered light-duty vehicles (LDVs) and 2 non-covered AFVs in FY 2004. Appendix A provides detailed information on the number and types of LDVs leased or purchased by HUD fleets in FY 2004, and projections for FY 2005 and FY 2006 acquisitions.



### Figure 1. Summary of HUD’s Actual and Projected AFV Acquisitions

All vehicles leased and purchased by HUD were “non-covered” vehicles. Of the total of 73 LDVs acquired in FY 2004, the following were not counted for compliance:

- 59 were exempt because they were in fleets of fewer than 20 vehicles; and
- 14 were exempt as law enforcement vehicles.

HUD Fleet	EPAct-Covered Acquisitions	AFV Acquisition Requirements for FY 2004	Total AFV Acquisitions (including credits)
73	0	0	2

Table 1. HUD Fleets Exhibiting Required Acquisition of AFVs in FY 2004

### Improved Fuel Economy

Baseline fleet average fuel economy for covered, conventional petroleum LDVs was 23 mpg in FY 1999. In FY 2004, HUD achieved a fleet average fuel economy of 22.82 mpg.

As stated earlier, HUD started out with a favorably high fuel economy baseline. With few available vehicle acquisition options greater than 23 mpg, it will be difficult to achieve a fuel economy increase of 1 mpg/year. HUD will continue to work closely with GSA to obtain vehicles which meet mission requirements and provide the best fuel economy. Per the FY 2004 FAST data call, there were only 6 vehicles out of 54 available with mpgs greater than 23 (Escort (28), Focus wagon (29.4), Malibu (23.2), Voyager (23.3), Intrepid (27.7), and a Civic hybrid (48.1)). HUD will work to ensure that acquisitions of petroleum LDVs meet the mpg requirement, to the extent that vehicles are available and meet mission requirements.

### HUD Fleet AFV Acquisitions for FYs 2005 and 2006

Appendix A provides detailed information on projected vehicle acquisitions and inventory for HUD fleets for FY 2005 and FY 2006. In FY 2005, the HUD fleets are planning to acquire a total of 82 LDVs, of which 10 will be alternative fuel vehicles, thus surpassing the EPAct requirement of 1 AFV.

In FY 2006, the HUD fleets are planning to acquire a total of 78 LDVs, of which 10 will be alternative fuel vehicles, thus surpassing the EPAct requirement of 1 AFV.

## Petroleum Savings

In FY 1999, HUD's baseline petroleum consumption was 210,122 Gasoline Gallon Equivalent (GGE), and FY 2004 petroleum consumption was 176,865 GGE, a decrease of 33,257 GGE (15.8 percent). At a meeting with the EPA's Regulatory Manager of the Department of Energy (DOE) on November 24, 2004, DOE expressed concern over the accuracy of the FY 1999 baseline petroleum consumption data and how HUD could have achieved such a large decrease in fuel consumption with such a minimal amount of alternative fuel usage. HUD is currently working with General Services Administration and Department of Energy to verify the accuracy of HUD's baseline petroleum consumption. It is difficult to project petroleum savings for FY 2005 and FY 2006 until HUD finalizes its baseline figures; however, HUD still anticipates a reduction in fuel consumption from our baseline year.

## Alternative Fuel Use by HUD Fleets in FY 2004

Table 2 presents alternative fuel use data for HUD's fleets in FY 2004. The majority of vehicles acquired by HUD and other federal 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 or E-85), it is difficult for credit vendors to accurately track the purchase of alternative fuels with this credit card. Instead, HUD approximates alternative fuel use utilizing GSA data and internal records.

In FY 2004, HUD's alternative fuel consumption was 108 GGE compared to 31,044 GGE of all fuels used in AFVs (including petroleum used in AFVs and excluding biodiesel, which is not used in HUD's AFVs). Thus, AFVs operated on alternative fuels less than one percent of the time in FY 2004. HUD is closely monitoring its existing AFV fleet in conjunction with the availability of current alternative fueling stations.

There are very few refueling stations for HUD's fleet to utilize and there are currently no plans for the development of on-site infrastructure at any of HUD's locations. However, HUD will explore possibilities for partnering with other agencies for sharing usage of alternative fuel infrastructure from both private and public vendors.

Fuel Type	Quantity	Unit
Biodiesel – B100	0	Gallons
CNG	0	Gallons @ 2,400 psi, 70°F
CNG	0	Hundred cu. ft.
Diesel	756	Gallons
E-85	57	Gallons*
Gasoline	176,865	Gallons
Methanol	0	Gallons
Propane	51	Gallons

\* Estimate based on incomplete data

**Table 2. HUD Fuel Use in FY 2004**

**Summary**

As detailed in this report and Appendix A, HUD exceeded the AFV acquisition requirements of EPAct in FY 2004. HUD will continue to implement its strategy for complying with the requirements of E.O. 13149, working toward the goal of a 20 percent reduction in the fleet's annual petroleum consumption by FY 2005.

**Department of Housing and Urban Development  
Complex-Wide AFV Report 2004 - Actual**

<b>Actual Department of Housing and Urban Development FY 2004 Vehicle Acquisitions</b>					
<b>Actual FY 2004 Light-Duty Vehicle Acquisitions</b>				<b>Total Vehicle Inventory</b>	
	<b>Leased</b>	<b>Purchased</b>	<b>Total</b>		
Total number of Light-Duty (8,500 GVWR) - Vehicle Acquisitions		73	0	73	526
Exemptions	Fleet Size	59	0	59	471
	Geographic	0	0	0	0
	Law Enforcement	14	0	14	52
	Non-MSA Operation (fleet)	0	0	0	0
	Non-MSA Operation (vehicles)	0	0	0	(n/a)
<b>EPAct Covered Acquisitions</b>		<b>0</b>	<b>0</b>	<b>0</b>	<b>3</b>
<b>Actual FY 2004 AFV Acquisitions</b>				<b>Total Vehicle Inventory</b>	
<b>Vehicle</b>	<b>Leased</b>	<b>Purchased</b>	<b>Total</b>		
Sedan	CNG Bi-Fuel Subcompact	0	0	0	4
Sedan	E-85 Flex-Fuel Compact	2	0	2	26
Sedan	E-85 Flex-Fuel Midsize	0	0	0	36
Pickup 4x2	E-85 Flex-Fuel	0	0	0	6
Minivan 4x2 (Passenger)	E-85 Flex-Fuel	0	0	0	7
Van 4x2 (Passenger)	E-85 Flex-Fuel	0	0	0	8
<b>Total Number of AFV Acquisitions</b>		<b>2</b>	<b>0</b>	<b>2</b>	<b>87</b>
Zero Emission Vehicle Credits		0	0	0	0
Dedicated Light-Duty AFV Credits		0	0	0	0
Dedicated Medium-Duty AFV Credits		0	0	0	0
Dedicated Heavy-Duty AFV Credits		0	0	0	0
Biodiesel Fuel Usage Credits - Actual		0	0	0	0
<b>Total AFV Acquisitions with Credits</b>		<b>2</b>	<b>0</b>	<b>2</b>	<b>0</b>
<b>AFV Percentage of Covered Light-Duty Vehicle Acquisition</b>				<b>0%</b>	

**Department of Housing and Urban Development  
Complex-Wide AFV Report 2005 – Planned**

<b>Planned Department of Housing and Urban Development FY 2005 Vehicle Acquisitions</b>			
<b><i>Planned FY 2005 Light-Duty Vehicle Acquisitions</i></b>			
	<b>Leased</b>	<b>Purchased</b>	<b>Total</b>
Total number of Light-Duty (8,500 GVWR) - Vehicle Acquisitions	82	0	82
Exemptions	Fleet Size	73	0
	Geographic	0	0
	Law Enforcement	8	0
	Non-MSA Operation (fleet)	0	0
	Non-MSA Operation (vehicles)	0	0
<b>EPAct Covered Acquisitions</b>	<b>1</b>	<b>0</b>	<b>1</b>
<b><i>Planned FY 2005 AFV Acquisitions</i></b>			
<b>Vehicle</b>	<b>Leased</b>	<b>Purchased</b>	<b>Total</b>
Sedan	6	0	6
Minivan 4x2 (Passenger)	3	0	3
Van 4x2 (Passenger)	1	0	1
<b>Total Number of AFV Acquisitions</b>	<b>10</b>	<b>0</b>	<b>10</b>
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	0	0
<b>Total AFV Acquisitions with Credits</b>	<b>10</b>	<b>0</b>	<b>10</b>
<b>AFV Percentage of Covered Light-Duty Vehicle Acquisition</b>			<b>1,000 %</b>

**Department of Housing and Urban Development  
Complex-Wide AFV Report 2006 – Projected**

<b>Projected Department of Housing and Urban Development FY 2006 Vehicle Acquisitions</b>			
<b><i>Projected FY 2006 Light-Duty Vehicle Acquisitions</i></b>			
	<b>Leased</b>	<b>Purchased</b>	<b>Total</b>
Total number of Light-Duty (8,500 GVWR) - Vehicle Acquisitions	78	0	78
Exemptions	Fleet Size	63	0
	Geographic	0	0
	Law Enforcement	14	0
	Non-MSA Operation (fleet)	0	0

	Non-MSA Operation (vehicles)	0	0	0
<b>EPAct Covered Acquisitions</b>		<b>1</b>	<b>0</b>	<b>1</b>
<b><i>Projected FY 2006 AFV Acquisitions</i></b>				
	<b>Vehicle</b>	<b>Leased</b>	<b>Purchased</b>	<b>Total</b>
Sedan	E-85 Flex-Fuel Compact	4	0	4
Sedan	E-85 Flex-Fuel Midsize	2	0	2
Pickup 4x2	E-85 Flex-Fuel	1	0	1
Minivan 4x2 (Passenger)	E-85 Flex-Fuel	3	0	3
<b>Total Number of AFV Acquisitions</b>		<b>10</b>	<b>0</b>	<b>10</b>
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		0	0	0
<b>Total AFV Acquisitions with Credits</b>		<b>10</b>	<b>0</b>	<b>10</b>
<b>AFV Percentage of Covered Light-Duty Vehicle Acquisition</b>				<b>1,000 %</b>