

# U.S. Department of Housing and Urban Development Fleet Alternative Fuel Vehicle Acquisition Report

Compliance with EPO Act and E.O. 13149 in Fiscal Year 2005

This report summarizes the U.S. Department of Housing and Urban Development (HUD) fiscal year (FY) 2005 fleet performance in meeting the requirements of the Energy Policy Act (EPO Act) of 1992 (Public Law 102-486), as amended by the Energy Conservation Reauthorization Act of 1998 (Public Law 105-388), and in meeting the goals of Executive Order (E.O.) 13149, "Greening the Government through Federal Fleet and Transportation Efficiency" (65 FR 24607), which was signed in April 2000 (Exhibit 1). Signed into law in August 2005, section 705 of the EPO Act of 2005 (Public Law 109-58), amended the due date of this report to February 15<sup>th</sup>. Additional requirements placed on Federal fleets by the EPO Act of 2005 do not impact fleets in FY 2005, but will be incorporated in subsequent reporting.

**Exhibit 1. HUD's Performance in Meeting EPO Act and E.O. 13149 Requirements, FY 2005**

Authority/ Mandate	Performance Measure	Goal/Requirement	HUD's Performance In FY 2005
EPO Act	Alternative fuel vehicle (AFV) acquisitions	75 percent of the 98 covered light-duty vehicles (LDV) acquired in FY 2005 must be AFVs	Acquired 25 AFVs, or 26 percent of covered acquisitions
E.O. 13149	Alternative fuel use in AFVs	By FY 2005, increase alternative fuel use in AFVs to a majority of the total fuel used in those vehicles	Achieved .1 percent alternative fuel use in AFVs
	Fuel economy of light-duty acquisitions	By FY 2005, increase fuel economy by 3 miles per gallon (mpg) compared to FY 1999 baseline of 23 mpg	Increased to 34.3 mpg, an increase of 11.3 mpg over the FY 1999 baseline
	Petroleum consumption	By FY 2005, reduce covered consumption by 20 percent compared to FY 1999 baseline of 210,122 gasoline gallon equivalent (GGE)	Consumed 197,574 GGE, a reduction of 6 percent from the FY 1999 baseline

## **EPO Act Compliance**

HUD fell short of the EPO Act requirements in FY 2005. As a result of its AFV acquisitions in FY 2005, HUD earned 25 AFV acquisition credits amounting to 26 percent of its 98 EPO Act-covered LDVs.

## **Credits**

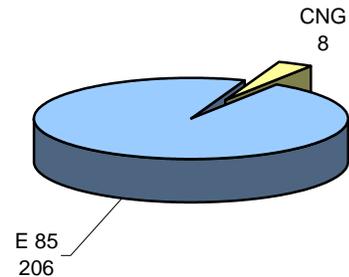
In FY 2005, HUD earned 25 credits. Federal fleets earn one credit for every bi- or flexible-fuel AFV acquired and for every 450 gallons of neat biodiesel (B100) or 2,250 gallons of B20 (20 percent biodiesel and 80 percent petroleum diesel) used. Additional credits are earned for AFVs that operate exclusively on alternative fuels. For this reporting period, HUD earned 25 credits for AFV acquisitions, 0 credits for biodiesel use, and no additional credits for purchasing dedicated light-duty AFVs.

## Vehicles

Of the 25 AFVs acquired in FY 2005, all of them were flexible-fuel vehicles (FFVs), which can run on E85 (85 percent ethanol, 15 percent gasoline). No compressed natural gas (CNG) vehicles were acquired.

FFVs capable of operating on E85 presently comprise 96 percent of HUD's AFV fleet (Exhibit 2), with CNG vehicles making up an additional 4 percent. As the availability of CNG vehicle models decreases, these vehicle types have become less prevalent in HUD's fleet.

**Exhibit 2. HUD's Total AFV Inventory**



## Exemptions

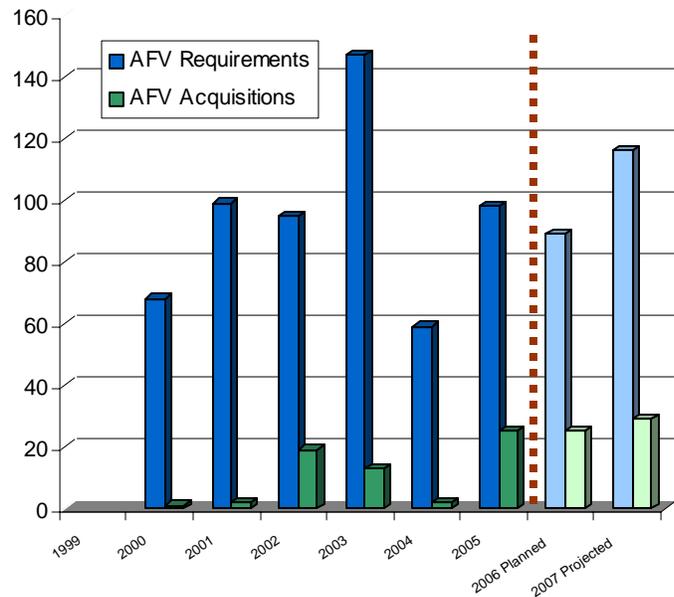
Of the 106 total LDVs acquired by HUD in FY 2005, 8 vehicles (7.5 percent) were considered exempt from compliance with EPO. Exemptions are granted for fleet size, geographic location or use outside a Metropolitan Statistical Area/Consolidated Metropolitan Statistical Area (MSA/CMSA), and use for law enforcement. (Note: The data recorded in FAST for FY 2005 inadvertently omitted the commercially-leased and owned portions of two exempted fleets, a total of 111 law enforcement vehicles.) In FY 2005, exemptions were granted as follows:

- Fleet Size (0)
- Geographic (0)
- Law Enforcement (3)
- Non-MSA/CMSA Operation/Fleet (0)
- Non-MSA/CMSA Operation/Vehicles (5)

## FY 2006/2007 Projected Acquisitions

The attachments to this report offer a detailed look at HUD's FY 2005 acquisitions and its projected acquisitions for FY 2006 and FY 2007. As illustrated in Exhibit 3, HUD has not yet met its annual EPO requirements since FY 1999. The planned and projected acquisitions currently entered into the Federal Automotive Statistical Tool (FAST) unfortunately would continue this trend (Appendices B and C). Recognizing this shortfall, HUD will work more closely with the General Services Administration (GSA) in an effort to acquire additional AFVs and achieve EPO compliance.

**Exhibit 3. EPO AFV Acquisitions and Requirement (Actual, Planned, and Projected)**



## E.O. 13149 Compliance

E.O. 13149 calls for each agency to

reduce vehicular petroleum consumption by 20 percent by the end of FY 2005 and specifies three approaches agencies should take to achieve this goal:

- Comply with EPA's annual AFV acquisition requirements (as previously discussed).
- Use alternative fuels in fleet AFVs the majority of the time.
- Increase the fuel economy of LDV acquisitions (excluding AFVs) by 3 mpg by the end of FY 2005, as compared to baseline FY 1999 acquisitions.

### Use Alternative Fuels in AFVs

In FY 2005, .1 percent of the fuel used in HUD AFVs was alternative fuel. HUD will continue to work toward greater access to alternative fuel for fleet vehicles.

Exhibit 4 compares HUD's covered fuel use in FY 2005 and FY 1999. Although not by a substantial amount in FY 2005, HUD did improve its alternative fuel use over FY 1999 by .03 percent. During this period, HUD's total covered fuel consumption decreased by six percent.

### Improve Fuel Economy

Toward the petroleum reduction goal set forth in E.O. 13149, the E.O. calls for each agency to increase the fuel economy of its LDV acquisitions (excluding AFVs). With the acquisition of 72 highly fuel-efficient vehicles (60 Honda Civics and 12 Chevrolet Malibus), HUD was able to improve the average fuel economy of its vehicles by 11.3 miles per gallon over FY 1999.

### Summary and Conclusions

In FY 2005, HUD fell short of its EPA requirements, acquiring 25 AFVs, 26 percent of its total covered AFV acquisitions. Toward compliance with E.O. 13149, HUD used .1 percent alternative fuels in its AFVs, but achieved an 11.3-mpg increase in average fuel economy, and reduced its petroleum consumption by 6 percent compared to FY 1999.

**Exhibit 4. HUD's Total Covered Fuel Use**

Fuel Use	FY 1999 (GGE)	FY 2005 (GGE)
<u>Alternative Fuel</u>		
B100	0	0
CNG	0	0
E85	0	55
Electricity	0	0
LNG	0	0
LPG	0	0
<b>Total Alternative Fuel Use</b>	<b>0</b>	<b>55</b>
<u>Petroleum</u>		
Diesel	1,132	0
Gasoline	208,990	197,574
<b>Total Covered Petroleum Use</b>	<b>210,122</b>	<b>197,574</b>
<i>Total Covered Fuel Use</i>	<i>210,122</i>	<i>197,629</i>
<i>Alternative Fuel Use as a Percentage of Total Fuel Use</i>	<i>0</i>	<i>.03</i>

HUD has used this reporting process as an opportunity to assess its shortcomings and to implement a functional strategy that will promote compliance in FY 2006 and FY 2007. HUD will re-evaluate and modify as necessary its compliance strategy to better meet both EPA requirements and E.O. 13149 goals. This will include the following:

- Negotiate and issue a policy memorandum, that accurately reflects the revised compliance strategy;
- Collaborate closely with GSA to acquire additional AFVs; and
- Work to overcome obstacles in acquiring access to alternative fuel.

Exhibit 5 summarizes HUD's FY 2005 performance.

**Exhibit 5. HUD's Performance in Meeting its Requirements/Goals**

	<b>FY 1999 Baseline</b>	<b>FY 2005</b>	<b>Change FY 1999 vs. FY 2005</b>
<b>EPA Act</b>	N/A	26 percent	N/A
<b>Alternative Fuel Use in AFVs</b>	N/A	.1 percent	N/A
<b>Fuel Economy of LDV Acquisitions</b>	23 mpg	34.3 mpg	+11.3 mpg
<b>Petroleum Consumption</b>	210,122 GGE	197,574 GGE	-6 percent

# Appendices

## Appendix A

Actual Department of Housing and Urban Development FY 2005 Vehicle Acquisitions						
Actual FY 2005 Light-Duty Vehicle Acquisitions				Total Vehicle Inventory		
	Leased	Purchased	Total			
Total number of Light-Duty (8,500 GVWR) - Vehicle Acquisitions		106	0	106	766	
	Fleet Size	0	0	0	0	
	Geographic	0	0	0	0	
	Law Enforcement	3	0	3	37*	
	Non-MSA Operation (fleet)	0	0	0	0	
Exemptions	Non-MSA Operation (vehicles)		5	0	5	(n/a)
<b>EPACT Covered Acquisitions</b>		<b>98</b>	<b>0</b>	<b>98</b>	<b>729</b>	
Actual FY 2005 AFV Acquisitions				Total Vehicle Inventory		
Vehicle	Leased	Purchased	Total			
Sedan	CNG Bi-Fuel Subcompact	0	0	0	8	
Sedan	E-85 Flex-Fuel Compact	13	0	13	73	
Sedan	E-85 Flex-Fuel Midsize	6	0	6	85	
SUV 4x2	E-85 Flex-Fuel	0	0	0	2	
SUV 4x4	E-85 Flex-Fuel	2	0	2	12	
Minivan 4x2 (Passenger)	E-85 Flex-Fuel	4	0	4	34	
<b>Total Number of AFV Acquisitions</b>		<b>25</b>	<b>0</b>	<b>25</b>	<b>214</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 – Actual				0		
<b>Total AFV Acquisitions with Credits</b>		<b>25</b>	<b>0</b>	<b>25</b>		
<b>AFV Percentage of Covered Light-Duty Vehicle Acquisition</b>				<b>26%</b>		

\*The data recorded in FAST for FY 2005 inadvertently omitted the commercially-leased and owned portions of two exempted fleets, a total of 111 law enforcement vehicles.

## Appendix B

<b>Planned Department of Housing and Urban Development FY 2006 Vehicle Acquisitions</b>				
<b>Planned FY 2006 Light-Duty Vehicle Acquisitions</b>				
		<b>Leased</b>	<b>Purchased</b>	<b>Total</b>
Total number of Light-Duty (8,500 GVWR) - Vehicle Acquisitions		118	0	118
Exemptions	Fleet Size	0	0	0
	Geographic	0	0	0
	Law Enforcement	10	0	10
	Non-MSA Operation (fleet)	0	0	0
	Non-MSA Operation (vehicles)	19	0	19
<b>EPACT Covered Acquisitions</b>		<b>89</b>	<b>0</b>	<b>89</b>
<b>Planned FY 2006 AFV Acquisitions</b>				
	<b>Vehicle</b>	<b>Leased</b>	<b>Purchased</b>	<b>Total</b>
Sedan	CNG Bi-Fuel Subcompact	2	0	2
Sedan	E-85 Flex-Fuel Compact	3	0	3
Sedan	E-85 Flex-Fuel Midsize	17	0	17
Minivan 4x2 (Passenger)	E-85 Flex-Fuel	3	0	3
<b>Total Number of AFV Acquisitions</b>		<b>25</b>	<b>0</b>	<b>25</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
<b>Total AFV Acquisitions with Credits</b>		<b>25</b>	<b>0</b>	<b>25</b>
<b>AFV Percentage of Covered Light-Duty Vehicle Acquisition</b>				<b>28%</b>

## Appendix C

<b>Projected Department of Housing and Urban Development FY 2007 Vehicle Acquisitions</b>				
<b>Projected FY 2007 Light-Duty Vehicle Acquisitions</b>				
		<b>Leased</b>	<b>Purchased</b>	<b>Total</b>
Total number of Light-Duty (8,500 GVWR) - Vehicle Acquisitions		130	0	130
Exemptions	Fleet Size	0	0	0
	Geographic	0	0	0
	Law Enforcement	11	0	11
	Non-MSA Operation (fleet)	0	0	0
	Non-MSA Operation (vehicles)	3	0	3
<b>EPACT Covered Acquisitions</b>		<b>116</b>	<b>0</b>	<b>116</b>
<b>Projected FY 2007 AFV Acquisitions</b>				
	<b>Vehicle</b>	<b>Leased</b>	<b>Purchased</b>	<b>Total</b>
Sedan	E-85 Flex-Fuel Compact	12	0	12
Sedan	E-85 Flex-Fuel Midsize	11	0	11
SUV 4x4	E-85 Flex-Fuel	1	0	1
Minivan 4x2 (Passenger)	E-85 Flex-Fuel	5	0	5
<b>Total Number of AFV Acquisitions</b>		<b>29</b>	<b>0</b>	<b>29</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
<b>Total AFV Acquisitions with Credits</b>		<b>29</b>	<b>0</b>	<b>29</b>
<b>AFV Percentage of Covered Light-Duty Vehicle Acquisition</b>				<b>25%*</b>

\* This is worst-case scenario. HUD will endeavor to acquire additional AFVs to the extent practicable.

## Appendix D

Acronym	Phrase
AFV	Alternative Fuel Vehicle
B100	Biodiesel (100 percent, neat)
B20	Biodiesel (20 percent biodiesel, 80 percent petroleum diesel)
CNG	Compressed Natural Gas
HUD	U.S. Department of Housing and Urban Development
E85	Ethanol (85 percent ethanol, 15 percent petroleum)
E.O.	Executive Order
EPAct	Energy Policy Act
FFV	Flexible Fuel Vehicle
FR	Federal Register
FY	Fiscal Year
GGE	Gasoline Gallon Equivalent
GVWR	Gross Vehicle Weight Rating
HD	Heavy-Duty
INL	Idaho National Laboratory
LD	Light-Duty
LDV	Light-Duty Vehicle
LNG	Liquefied Natural Gas
LPG	Liquefied Petroleum Gas (Propane)
MD	Medium-Duty
MPG	Miles Per Gallon
MSA/CMSA	Metropolitan Statistical Area/Consolidated Metropolitan Statistical Area
SUV	Sport Utility Vehicle