## Department of Veterans Affairs



## **Vehicle Fleet Report on Alternative Fuel Vehicles**

**FY 2007** 

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# Department of Veterans Affairs (VA) FY 2007 Annual Transportation Management Report to Congress

#### Introduction

This report summarizes VA's performance in meeting the federal fleet-related requirements of 1) the Energy Policy Act (EPAct) of 1992 (Public Law 102-486, as amended by the Energy Conservation Reauthorization Act of 1998 (Public Law 105-388)); 2) EPAct 2005 (Public Law 109-58); and 3) Executive Order (EO) 13423, "Strengthening Federal Environmental, Energy and Transportation Management," signed January 2007. EO 13423 requirements supersede the previously applicable requirements in EO 13149, "Greening the Government Through Federal Fleet and Transportation Efficiency."

### I. Compliance with Energy Policy Acts of 1992 and 2005

#### FY 2007 Acquisitions

VA exceeded its EPAct requirements for alternative fuel vehicle (AFV) acquisitions in FY 2007 (see **Attachment A** for details). As a result of its AFV acquisitions and biodiesel fuel use in FY 2007, VA earned AFV acquisition credits amounting to 88 percent of its covered vehicle acquisitions, which is 13 points higher than the EPAct acquisition requirement of 75 percent.

#### VA:

- Acquired 1,383 EPAct-covered Light Duty Vehicles (LDVs). Of these, 1,193 (86 percent) were AFVs. This number is 11 points higher than the 75 percent compliance requirement of 1,037 AFVs.
- Received an additional 24 credits through the use of biodiesel.
- Earned a total of 1,222 credits (including vehicle acquisitions and additional credits) to reach 88 percent of covered acquisitions.

#### 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, VA earned 1,193 credits for AFV acquisitions, and 24 for biodiesel use.

#### <u>Vehicles</u>

Flexible-fuel vehicles (FFVs), which can run on E85 or gasoline, were the AFV of choice in FY 2007. Of the 1,193 AFVs that VA acquired in FY 2007, 1,187 of them were FFVs. VA acquired no compressed natural gas (CNG) vehicles this year.

#### Exemptions

Of the 1,640 LDVs that VA acquired in FY 2007, 247 (15 percent) were exempt from compliance with EPAct. EPAct language grants exemptions for fleet size, geographic

location or use outside a Metropolitan Statistical Area/Consolidated Metropolitan Statistical Area (MSA/CMSA), and law enforcement/emergency uses. In FY 2007, VA recorded exemptions as follows:

•	Fleet size	3 <sup>1</sup>
•	Geographic	15
•	Law Enforcement	23
•	Non-MSA Operation (Fleet)	40
•	Non-MSA Operation (Vehicles)	<u>166</u>
	TOTAL	247

#### Planned and Projected Acquisitions in FYs 2008 and 2009

**Attachments B and C** to this report offer a detailed look at VA's planned acquisitions for FY 2008 and projected acquisitions for FY 2009.

As illustrated in the chart on the following page, EPAct covered acquisitions in FY 2007 totaled 1,383 vehicles. The required number of AFVs to be acquired was 1,037 and the number of AFVs acquired and ordered was 1,193.

EPAct covered acquisitions in FY 2008 are planned to be 1,418 vehicles, a 2.5 percent increase from FY 2007. The required number of AFVs to be acquired is 1,063, a 2.5 percent increase from FY 2007. The number of AFVs projected to be acquired and ordered is 1,206, a 1.1 percent increase from FY 2007.

For FY 2009, EPAct covered acquisitions are projected to be 1,285, a 9.4 percent decrease from FY 2008. The required number of AFVs to be acquired is 963, a 9.4 percent decrease from FY 2008. The number of AFVs projected to be acquired and ordered is 1,128, a 6.5 percent decrease from FY 2008.

#### II. Compliance with Executive Order 13423

The overall intention of EO 13423 Section 2(g) is for Federal agencies to take a leadership role in the reduction of petroleum consumption and the increased use of alternative fuels in motor vehicles. Specifically, agencies are directed to reduce petroleum consumption annually by two percent through 2015 and increase use of non-petroleum fuels by 10 percent annually.

#### Performance Against Baselines

In order to measure fleet performance, the EO required agencies to first establish baselines for petroleum use and alternative fuel use, as shown in **Table 1**. VA worked with the Department of Energy (DOE) as directed to establish these baselines. **Tables 2 and 3** present the baselines and VA's performance with respect to the baselines.

<sup>&</sup>lt;sup>1</sup> Beginning with FY 2008 reporting, no exemptions based on fleet size will be claimed.

### Actual FY 2007, Planned FY 2008 and Projected FY 2009 EPAct Covered/AFV Acquisitions

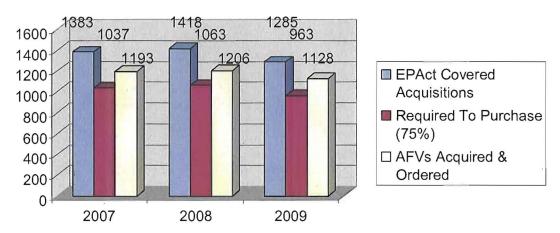


Table 1. Required Procedures for Establishing 2005 Baselines for Petroleum Reduction and Alternative Fuel Use Under EO 13423

EO 13423 REQUIREMENT	DUE DATE	VA STATUS
Executive agencies and independent agencies subject to this	October 31,	In compliance
Order must:	2007	
<ul> <li>Review the FY 2005 subject petroleum consumption and</li> </ul>		
FY 2005 alternative fuel use reported in FAST.	*	
<ul> <li>If the reported values are incorrect, the agency must work</li> </ul>		
with DOE to resolve any issues.		
<ul> <li>Using the reported or corrected values, the agency should</li> </ul>		
review the establishment of its Subject Petroleum		
Baseline and Alternative Fuel Baseline based on the		€.
methodology in this guidance document.		
<ul> <li>The agency will work with DOE to resolve any baseline</li> </ul>		
issues by October 31, 2007.		

Table 2. FY 2005 Subject Petroleum Baselines and Comparison of Subject Petroleum Usage by VA in FYs 2005, 2006 and 2007

	PETROLEU			
Gasoline Gallon Equivalent (GGE)			PERCENT	CHANGE
FY 2005         FY 2006         FY 2007		FY 2007	2005-2006	2005-2007
8,514,876	6,952,242	6,543,626	- 18%	- 23%

Table 3. FY 2005 Alternative Fuel Use Baseline and Comparison of Alternative Fuel Usage by VA in FYs 2005, 2006 and 2007

	ATE FUEL U allon Equivale	PERCENT	CHANGE	
FY 2005 BASELINE	FY 2006	2005-2006	2005-2007	
36,583	55,768	78,168	+ 52%	+ 114%

**Table 4** presents the EO 13423 Section 2(g) requirements established for Federal fleets and summarizes VA's related FY 2007 performance.

Table 4. Federal Fleet Performance Requirements of EO 13423 and VA FY 2007 Performance

Performance		
Measure	Goal / Requirement	VA FY 2007 Performance
Petroleum Reduction	Beginning in FY 2007, reduce petroleum consumption by subject vehicles 2 percent annually through 2015, compared to the FY 2005 Subject Petroleum Baseline	Requirement met. VA consumed 6,543,626 GGE in FY 2007, a decrease of 23% from the FY 2005 baseline of 8,514,876 GGE.
Increase in Consumption of Alternative Fuels	Beginning in FY 2007, increase consumption of alternative fuels by at least 10 percent compounded annually, relative to the FY 2005 Alternative Fuel Baseline	Requirement met. VA consumed 78,168 GGE in FY 2007, a 114% increase from the FY 2005 baseline of 36,583 GGE.
Use of Plug-in Hybrid Vehicles (PHEVs)	PHEVs should be used as they become commercially available and have lifecycle costs comparable to non-PHEV vehicles. EO Implementing Instructions: "Agencies shall consider the use of PHEVs as a strategy to help meet the goals of the EO."	VA will consider the use of PHEVs that are compatible with VA's needs as a strategy to help meet the goals of the EO as they become commercially available and cost comparable to non-PHEV vehicles.

#### Discussion

**Table 5** compares VA's baseline fuel use established for FY 2005 with detailed fuel use for FYs 2006 and 2007. As shown, in FY 2007, 1.2 percent of the total covered fleet fuel VA used was alternative fuels. VA's total fleet has about 11,000 vehicles in 270 unique fleets. In many of the locations in which VA fleet vehicles operate, alternative fuels and associated infrastructure is scarce. The scope of this issue is demonstrated by the fact that DOE has granted waivers to about 50 percent of VA's AFVs for FY 2008 (under the Section 701 provisions of EPAct 2005) primarily because alternate fuel is not proximately available. As alternative fueling infrastructure becomes more widely available, and as VA pursues strategies such as installing on-site fueling facilities, the percentage of alternative fuel use will increase.

Table 5. VA Covered Fuel Consumption FY 2005 (Baseline) - FY 2007

	FY 2005 BASELINE	FY 2006	FY 2007
FUEL TYPE	Gasoli	ine Gallon Equivaler	nt (GGE)
Alternative Fuel			
B100		16,055	12,490
CNG		1,172	2,848
E85		37,658	62,830
Electricity		147	0
LNG		0	0
LPG		736	0
Total Alternative Fuel Use	36,583	55,768	78,168
Petroleum			
B20	9	32,167	41,475
Diesel		1,163,558	1,122,566
Gasoline	e	5,756,518	5,379,585
Total Covered Petroleum Use	8,514,876	6,952,242	6,543,626
Alternative Fuel Use as a Percentage	0.4%	0.8%	1.2%
of Total Fuel Use*			

<sup>\*</sup> Total fuel use = total covered petroleum use plus total alternative fuel use.

VA published a Vehicle Fleet Management Guidebook in December 2006, which provides guiding principles to improve the management of the VA vehicle fleet, including alternative fuel use and petroleum reduction. Also, VA required all fleet managers to submit an alternative fuels plan in 2006 and 2007. VA is developing a Department-level Fleet Management Action Plan and incorporating key activities to increase the use of alternative fuels. Finally, VA recently established a Department-wide Fleet Management Task Force, which will be completing the action plan and coordinating its implementation.

#### III. Summary and Conclusions

In FY 2007, VA fully satisfied the alternative fuel vehicle acquisition, alternative fuel usage requirements, and petroleum usage reduction requirements of EO 13423 and the Energy Policy Acts of 1992 and 2005. With Department-level coordination and planning taking place through a new Fleet Management Task Force, and a VA-wide Fleet Management Action Plan under development, VA anticipates continuing to improve its fleet management practices and meet Federal fleet mandates.

## **ATTACHMENT A - Cont'd**

	isition			Total Vehicle	
V	ehicle	Leased	Purchased	Total	Inventory
Sedan	CNG Bi-Fuel Subcompact	0	0	Q	1
Sedan	CNG Dedicated Compact	0	0	0	4
Sedan	E-85 Flex-Fuel Compact	8	3	11	764
Sedan	E-85 Flex-Fuel Midsize	691	0	691	1,075
Sedan	CNG Dedicated Large	4	0	4	0
Sedan	E-85 Flex-Fuel Large	4	1	5	1
Pickup 4x2	CNG Bi-Fuel	0	0	0	8
Pickup 4x2	E-85 Flex-Fuel	- 29	0	29	108
Pickup 4x4	CNG Dedicated	0	0	0	1
Pickup 4x4	E-85 Flex-Fuel	12	0	12	23
SUV 4x2	E-85 Flex-Fuel	10	1	11	33
SUV 4x4	E-85 Flex-Fuel	30	0	30	92
Minivan 4x2 (Passenger)	CNG Dedicated	1	0	1	0
Minivan 4x2 (Passenger)	E-85 Flex-Fuel	350	3	353	. 901
Minivan 4x2 (Cargo)	E-85 Flex-Fuel	32	0	32	34
Van 4x2 (Passenger)	E-85 Flex-Fuel	1	2	3	38
Van 4x4 (Passenger)	E-85 Flex-Fuel	0	1	1	5
Van 4x2 (Cargo)	E-85 Flex-Fuel	0	7	7	20
Bus	CNG Bi-Fuel	1	0	1	1
SUV MD	E-85 Flex-Fuel	0	1	1	0
Van MD (Passenger)	CNG Bi-Fuel	0	0	0	3
Van MD (Passenger)	CNG Dedicated	0	0	0	3
Van MD (Passenger)	E-85 Flex-Fuel	0	1	1	1
MD 8,501-16,000 GVWR	CNG Dedicated	0	0	0	1
HD 16,001 + GVWR	CNG Bi-Fuel	0	. 0	0	1
Total Number of AFV	Acquisitions	1,173	20	1,193	3,118
Zero Emission Vehicle Credits		0	0	0	
Dedicated Light-Duty AFV Credits		5	0	5	
Dedicated Medium-Duty AFV Credits		0	0	0	
Dedicated Heavy-Duty AFV Credits		0	0	0	
Biodiesel Fuel Usage (	Credits - Actual			24	
Total AFV Acquisition	ns with Credits	1,178	20	1,222	
AFV Percentage of Co	overed Light-Duty Vehicle	Acquis	ition	88 %	

#### ATTACHMENT B

#### Planned Department of Veterans Affairs FY 2008 **Vehicle Acquisitions** Planned FY 2008 Light-Duty Vehicle Acquisitions Leased Purchased Total Total number of Light-Duty (8,500 GVWR) - Vehicle 1,520 259 1,779 Acquisitions Fleet Size1 Geographic 35 42 Exemptions Law Enforcement 15 15 Non-MSA Operation (fleet) 4 70 74 Non-MSA Operation (vehicles) 203 208 **EPACT Covered Acquisitions** 1,291 141 1,432

<sup>&</sup>lt;sup>1</sup> Beginning with FY 2008 reporting, no exemptions based on fleet size will be claimed.

## **ATTACHMENT B - Cont'd**

	Vehicle	Leased	Purchased 7	Total 71
Sedan	E-85 Flex-Fuel Compact	64		
Sedan	E-85 Flex-Fuel Midsize	576	31	607
Sedan	CNG Dedicated Large	4	0	4
Sedan	E-85 Flex-Fuel Large	5	1	6
Pickup 4x2	E-85 Flex-Fuel	31	3	34
Pickup 4x4	E-85 Flex-Fuel	10	0	10
SUV 4x2	E-85 Flex-Fuel	11	0	11
SUV 4x4	E-85 Flex-Fuel	32	2	34
Minivan 4x2 (Passenger)	E-85 Flex-Fuel	350	31	381
Minivan 4x2 (Cargo)	E-85 Flex-Fuel	31	0	31
Van 4x2 (Passenger)	E-85 Flex-Fuel	0	10	10
Van 4x2 (Cargo)	E-85 Flex-Fuel	1	1	2
Bus	CNG Bi-Fuel	1	0	1
Van MD (Passenger)	E-85 Flex-Fuel	0	4	4
Total Number of AFV Acqu	isitions	1,116	90	1,206
Zero Emission Vehicle Credit	S	0	0	0
Dedicated Light-Duty AFV Cr	edits	4	0	4
Dedicated Medium-Duty AFV Credits		0	0	0
Dedicated Heavy-Duty AFV Credits		0	0	0
Biodiesel Fuel Usage Credits - Planned				45
Total AFV Acquisitions wit	n Credits	1,120	. 90	1,255
AFV Percentage of Covered Light-Duty Vehicle Acquisition				88 %

## **ATTACHMENT C**

Projec	ted Department of Ve Vehicle Acqu		ffairs FY 2	2009	
	Projected FY 2009 Light-Duty	Vehicle Acq	uisitions	Sale of	
Leased Purchased Total					
Total number of Acquisitions	f Light-Duty (8,500 GVWR) - Vehicle	1,359	99	1,458	
	Fleet Size <sup>1</sup>	0	3	3	
	Geographic	. 0	27	27	
Exemptions	Law Enforcement	8	0	8	
	Non-MSA Operation (fleet)	2	10	. 12	
	Non-MSA Operation (vehicles)	117	0	117	
<b>EPACT Covere</b>	ed Acquisitions	1,232	59	1,291	

 $<sup>^{1}</sup>$  Beginning with FY 2008 reporting, no exemptions based on fleet size will be claimed.

## **ATTACHMENT C - Cont'd**

P	rojected FY 2009 AFV Acq	uisitions		
Basel View Zing (A View )	Vehicle	Leased	Purchased	Total
Sedan	E-85 Flex-Fuel Compact	65	0	65
Sedan	E-85 Flex-Fuel Midsize	588	7	595
Sedan	CNG Dedicated Large	4	0	4
Sedan	E-85 Flex-Fuel Large	0	1	1
Pickup 4x2	CNG Bi-Fuel	1	0	1
Pickup 4x2	E-85 Flex-Fuel	26	2	28
Pickup 4x4	E-85 Flex-Fuel	9	0	9
SUV 4x2	E-85 Flex-Fuel	10	0	10
SUV 4x4	E-85 Flex-Fuel	29	0	29
Minivan 4x2 (Passenger)	CNG Dedicated	1	0	1
Minivan 4x2 (Passenger)	E-85 Flex-Fuel	327	10	337
Minivan 4x2 (Cargo)	E-85 Flex-Fuel	30	0	30
Van 4x2 (Passenger)	E-85 Flex-Fuel	0	3	3
Van 4x2 (Cargo)	E-85 Flex-Fuel	0	1	1
Bus	CNG Bi-Fuel	1	0	1
Van MD (Passenger)	E-85 Flex-Fuel	0	13	13
Total Number of AFV Acqu	isitions	1,091	37	1,128
Zero Emission Vehicle Credit	S	0	0	0
Dedicated Light-Duty AFV Cr	edits	5	0	5
Dedicated Medium-Duty AFV Credits		0	0	0
Dedicated Heavy-Duty AFV Credits		0	0	0
Biodiesel Fuel Usage Credits	- Projected			93
Total AFV Acquisitions with	n Credits	1,096	37	1,226
AFV Percentage of Covered	AFV Percentage of Covered Light-Duty Vehicle Acquisition			