

Department of Veterans Affairs



Vehicle Fleet Report On Alternative Fuel Vehicles

FY 2008

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Table of Contents

| | <u>Page No.</u> |
|--|-----------------|
| I. Introduction | 1 |
| II. Compliance with Executive Order 13423 | 2 |
| III. Compliance with Energy Policy Acts of 1992 and 2005 | 4 |
| IV. Summary and Conclusions | 6 |
| Attachment A..... | 7 |
| FY 2008 VA Actual Vehicle Acquisitions | |
| Attachment B..... | 9 |
| FY 2009 VA Planned Vehicle Acquisitions | |
| Attachment C | 10 |
| FY 2010 VA Projected Vehicle Acquisitions | |

Department of Veterans Affairs (VA)
Fiscal Year 2008 Vehicle Fleet Report on Alternative Fuel Vehicles

I. Introduction

VA is pleased to report significant progress towards achieving Energy Policy Act (EPA) and Executive Order (EO) 13423 goals by increasing alternative fuel vehicle acquisitions, alternative fuel use, and reducing petroleum consumption. Also this year, VA's Department-level Fleet Management Task Force drafted a multi-year action plan that addresses the following main agency challenges:

- (1) Data and Reporting. A key VA activity is to participate in the General Services Administration's (GSA) pilot vehicle management information system (VMIS) program. VA's participation will help to create a functional data system that can be adapted throughout the federal government and will give VA a unified data system.
- (2) Utilization. VA is updating existing guidance and developing new policies and procedures to ensure compliance with federal regulations and executive orders, and to enhance efficiency. Among other actions, all VA components will conduct annual utilization analyses for Departmental review.
- (3) Fueling. Actions planned and underway include identifying key facilities for upgrading existing fueling infrastructure, and installing new alternative fueling stations to maximize opportunities to increase alternative fuel use. During 2008, VA was successful in opening a new alternative fueling station (AFS) at the San Francisco VA Medical Center (VAMC). In FY 2009, VA is conducting a national planning and concept-level design study as the first step in applying \$7 million in minor construction funding approved for alternative fueling station construction.
- (4) Acquisition and Disposal. VA continues to exceed the mandated 75 percent AFV acquisition requirement, and expanded its acquisition strategy to include hybrid electric vehicles in FY 2009. VA is establishing new policies and procedures for the acquisition and disposal of vehicles from a "cradle to grave" perspective, ensuring compliance with federal mandates. Planned actions include educating VA fleet administrators in the importance of rightsizing the fleet while increasing our alternative fuel vehicle fleet.

These steps and others will assist the VA in achieving its primary goal of providing care for our Nation's Veterans and their families while striving to achieve compliance with federal mandates for efficient and effective use of the agency's fleet.

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 reducing petroleum consumption and increasing the use of alternative fuels in motor vehicles.

Performance Against Baselines. In FY 2008, VA exceeded both alternative fuel use and petroleum consumption reduction requirements of the EO. **Tables 1 and 2** present the 2005 baselines (established by the Department of Energy) and VA's annual performance with respect to the baselines through the current reporting year; **Table 3** presents details on baseline and 2008 fuel use.

Table 1. FY 2005 Subject Petroleum Baseline and Comparison of Subject Petroleum Usage by VA in FYs 2006-2008

| SUBJECT PETROLEUM USE | | | |
|-----------------------|--|---|--|
| | Petroleum Use (Gasoline Gallon Equivalent (GGE)) | Percent Change from Previous Year | Percent Change from Base Year (2005) |
| FY 2005 | 8,514,876 | -- | -- |
| FY 2006 | 6,952,242 | - 18% | - 18% |
| FY 2007 | 6,543,626 | - 6% | - 23% |
| FY 2008 | 7,253,776 | 11% | - 15% |

Table 2. FY 2005 Alternative Fuel Use Baseline and Comparison of Annual Alternative Fuel Usage by VA in FYs 2006-2008

| ALTERNATIVE FUEL USE | | | |
|----------------------|----------------------------------|---|--|
| | Alternative Fuel Use (GGE) | Percent Change from Previous Year | Percent Change from Base Year (2005) |
| FY 2005 | 36,583 | -- | -- |
| FY 2006 | 55,768 | 52% | 52% |
| FY 2007 | 78,168 | 40% | 114% |
| FY 2008 | 427,862 | 447% | 1,070% |

**Table 3. VA Detailed Covered Fuel Consumption
Baseline Year and Reporting Year**

| | FY 2005 BASELINE | FY 2008 |
|-----------------------------|---|-----------|
| | <i>Gasoline Gallon Equivalent (GGE)</i> | |
| Alternative Fuel | | |
| B100 | n/a | 25,196 |
| CNG | n/a | 1,526 |
| E85 | n/a | 401,126 |
| Electricity | n/a | 0 |
| LNG | n/a | 0 |
| LPG | n/a | 0 |
| M-85 | n/a | 14 |
| Total Alternative Fuel Use | 36,583 | 427,862 |
| Petroleum | | |
| B20 | n/a | 51,252 |
| Diesel | n/a | 1,265,395 |
| Gasoline | n/a | 5,937,129 |
| Total Covered Petroleum Use | 8,514,877 | 7,253,776 |

Table 4 lists the EO 13423 Section 2(g) requirements for Federal fleets and summarizes VA's related FY 2008 performance.

Table 4. EO 13423 Federal Fleet Requirements and VA FY 2008 Performance

| Performance Measure | Goal / Requirement | VA FY 2008 Performance |
|--|---|--|
| Petroleum consumption reduction | Reduce petroleum consumption by subject vehicles 2 percent or more annually in FYs 2007-2015, compared to the FY 2005 subject petroleum baseline | Requirement exceeded. VA consumed 7.2 million gasoline gallon equivalents (GGE), a decrease of 15 percent from the FY 2005 baseline of 8.5 million GGE, and 0.8 million GGE better than the goal of 8.0 million GGE. |
| Significant increase in consumption of alternative fuels | Increase consumption of alternative fuels by at least 10 percent compounded annually, relative to the FY 2005 alternative fuel baseline, beginning in FY 2007 | Requirement exceeded. VA consumed 427,862 GGE, a 1,070 percent increase from the FY 2005 baseline of 36,583 GGE and 379,171 GGE better than the goal of 48,691 GGE. |
| Use of plug-in hybrid (PIH) vehicles (also known as PHEVs or HEVs) | Use plug-in hybrid (PHEV) vehicles as they become commercially available and have life-cycle costs comparable to non-PHEV vehicles, and consider the use of PHEVs as a strategy to help meet the goals of the EO 13423. | GSA is providing HEVs in their FY 2009 AFV product line and VA has ordered 102 HEVs for delivery in FY 2009. Use of HEVs is compatible with VA's needs to help meet the EO mandate. |

Future Performance. VA's Fleet Management Task Force completed a Fleet Management Action Plan, which provides a blueprint to improve the management and performance of the VA vehicle fleet, including alternative fuel use and petroleum reduction. Among other activities, the plan features construction of alternative fueling stations, training for fleet managers and administrators, and annual utilization reports in order to right size the fleet to best fit agency missions and goals. With \$7 million in newly approved minor construction funding, VA will conduct a national planning study in FY 2009 to identify, prioritize and select approximately 35 sites for installing alternative fueling capacity, and to develop concept-level design and construction cost estimates.

III. Compliance with Energy Policy Acts of 1992 and 2005

AFV Acquisition

VA exceeded its EAct requirements for AFV acquisitions in FY 2008 (see **Attachment A** for details). As a result of its AFV acquisitions and biodiesel fuel use in FY 2008, VA earned AFV acquisition credits amounting to 123 percent of its covered vehicle acquisitions, which is 48 percentage points higher than the EAct acquisition requirement of 75 percent.

Specifically, VA:

- Acquired 2,149 EAct-covered light duty vehicles (LDVs). Of these, 1,570 (58 percent) were AFVs.
- Received an additional 49 credits through the use of biodiesel.
- Earned a total of 1,619 credits (including vehicle acquisitions and additional credits) to reach 123 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 1,570 credits for AFV acquisitions, and 49 for biodiesel use.

Vehicles. Flexible-fuel vehicles (FFVs), which can run on E85 (85 percent ethanol and 15 percent gasoline) or gasoline, were the AFV of choice in FY 2008. Of the 2,149 AFVs that VA acquired in FY 2008, 1,570 were FFVs. VA acquired no compressed natural gas (CNG) vehicles this year.

Exemptions. Of the 2,149 LDVs that VA acquired in FY 2008, 837 were considered exempt from compliance with EAct. Exemptions are in general granted for fleet size, geographic location or use outside a Metropolitan Statistical Area/Consolidated Metropolitan Statistical Area (MSA/CMSA), and use for law enforcement. In FY 2008, VA exemptions were as follows:

VA Fleet Exemptions

| | |
|------------------------------|------------|
| Fleet size | 10 |
| Geographic | 479 |
| Law Enforcement | 87 |
| Non-MSA Operation (Fleet) | 47 |
| Non-MSA Operation (Vehicles) | <u>214</u> |
| TOTAL | 837 |

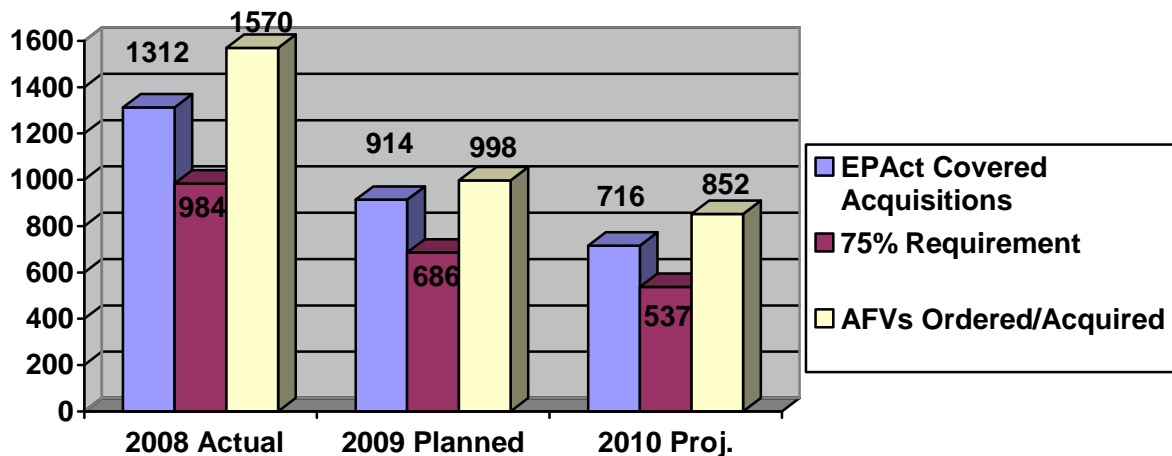
Projected Acquisitions in FYs 2009 and 2010. **Attachments B and C** to this report offer a detailed look at VA's FY 2009 planned acquisitions and its FY 2010 projected acquisitions.

As illustrated in the chart on the following page, EPO covered acquisitions in FY 2008 totaled 1,312 vehicles. The required number of AFVs to be acquired was 984 and the number of AFVs actually acquired and ordered was 1,570.

EPO-covered acquisitions in FY 2009 are projected to be 914 vehicles, a 30 percent decrease from FY 2008. The required number of AFVs to be acquired is 686 and the number of AFVs projected to be acquired and ordered is 998, a 36 percent decrease from FY 2008.

For FY 2010, acquisitions are projected to total 716, a 22 percent decrease from FY 2009. The required number of AFVs to be acquired is 537, and the number of AFVs VA anticipates acquiring and ordering is 852, a 15 percent decrease from FY 2009.

**Actual FY 2008, Planned FY 2009 and Projected FY 2010
EPO Covered/AFV Acquisitions**



Alternative Fuel Use in AFVs

VA's total fleet is 12,501 vehicles in 270 fleets across the U.S., including the U.S. Virgin Islands, Puerto Rico, American Samoa and the Philippines. In many of the locations in which VA fleet vehicles operate, alternative fuels and associated infrastructure are sparse or non-existent. While VA is more than successful in acquiring the mandated percentage of AFVs each year, meeting the EPA's 2005 mandate that each AFV run on alternative fuel 100 percent of the time is a major challenge. In addition to lack of commercially available fuel and fueling infrastructure, problems in accurately recording alternative fuel purchases continue to plague the industry. As alternative fueling infrastructure becomes more available, and as VA continues to pursue its strategies of installing on-site fueling facilities and acquiring PHEVs where appropriate, VA anticipates steadily increasing use of alternative fuels in its AFV fleet.

IV. Summary and Conclusions

In FY 2008, VA fully satisfied the alternative fuel vehicle acquisition, alternative fuel use requirements, and petroleum consumption reduction requirements of EO 13423 and the Energy Policy Acts of 1992 and 2005. With Department-level coordination and planning taking place through the Fleet Management Task Force, and with implementation of a VA-wide Fleet Management Action Plan, VA anticipates continuing to improve its fleet management practices to better meet federal fleet mandates and internal goals.

ATTACHMENT A

| (1) Actual Department of Veterans Affairs FY 2008 Vehicle Acquisitions | | | | | |
|--|------------------------------|-----------|-------|-------------------------|--------------|
| 1. Actual FY 2008 Light-Duty Vehicle Acquisitions | | | | Total Vehicle Inventory | |
| | Leased | Purchased | Total | | |
| Total number of Light-Duty (8,500 GVWR) - Vehicle Acquisitions | | 1,797 | 352 | 2,149 | 9,614 |
| Exemptions | Fleet Size | 10 | 0 | 10 | 83 |
| | Geographic | 368 | 111 | 479 | 1,633 |
| | Law Enforcement | 82 | 5 | 87 | 373 |
| | Non-MSA Operation (fleet) | 32 | 15 | 47 | 270 |
| | Non-MSA Operation (vehicles) | 214 | 0 | 214 | <i>(n/a)</i> |
| EPACT Covered Acquisitions | | 1,091 | 221 | 1,312 | 7,255 |

ATTACHMENT A - Cont'd

| Actual FY 2008 AFV Acquisitions | | | | | Total Vehicle Inventory |
|--|------------------------|-----------|-------|-------|-------------------------|
| Vehicle | Leased | Purchased | Total | | |
| Sedan | E-85 Flex-Fuel Compact | 153 | 2 | 155 | 722 |
| Sedan | M-85 Flex-Fuel Compact | 0 | 0 | 0 | 1 |
| Sedan | E-85 Flex-Fuel Midsize | 824 | 31 | 855 | 2,097 |
| Sedan | E-85 Flex-Fuel Large | 23 | 3 | 26 | 60 |
| Pickup 4x2 | CNG Bi-Fuel | 1 | 0 | 1 | 5 |
| Pickup 4x2 | E-85 Flex-Fuel | 38 | 0 | 38 | 156 |
| Pickup 4x4 | CNG Bi-Fuel | 0 | 0 | 0 | 1 |
| Pickup 4x4 | E-85 Flex-Fuel | 4 | 1 | 5 | 29 |
| SUV 4x2 | E-85 Flex-Fuel | 16 | 5 | 21 | 51 |
| SUV 4x4 | E-85 Flex-Fuel | 42 | 8 | 50 | 129 |
| Minivan 4x2 (Passenger) | CNG Dedicated | 0 | 0 | 0 | 1 |
| Minivan 4x2 (Passenger) | E-85 Flex-Fuel | 309 | 22 | 331 | 1,086 |
| Minivan 4x4 (Passenger) | E-85 Flex-Fuel | 2 | 0 | 2 | 2 |
| Minivan 4x2 (Cargo) | E-85 Flex-Fuel | 13 | 1 | 14 | 47 |
| Van 4x2 (Passenger) | E-85 Flex-Fuel | 35 | 12 | 47 | 120 |
| Van 4x4 (Passenger) | E-85 Flex-Fuel | 4 | 5 | 9 | 11 |
| Van 4x2 (Cargo) | E-85 Flex-Fuel | 4 | 2 | 6 | 27 |
| Van 4x4 (Cargo) | E-85 Flex-Fuel | 1 | 0 | 1 | 3 |
| Bus | CNG Bi-Fuel | 0 | 0 | 0 | 1 |
| SUV MD | E-85 Flex-Fuel | 2 | 1 | 3 | 21 |
| Van MD (Passenger) | CNG Bi-Fuel | 0 | 0 | 0 | 3 |
| Van MD (Passenger) | E-85 Flex-Fuel | 3 | 3 | 6 | 22 |
| Van MD (Cargo) | CNG Bi-Fuel | 0 | 0 | 0 | 1 |
| MD 8,501-16,000 GVWR | LPG Dedicated | 0 | 0 | 0 | 1 |
| Total Number of AFV Acquisitions | | 1,474 | 96 | 1,570 | 4,597 |
| 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 | | | | 49 | |
| Total AFV Acquisitions with Credits | | 1,474 | 96 | 1,619 | |
| AFV Percentage of Covered Light-Duty Vehicle Acquisition | | | | | 123 % |

ATTACHMENT B

| (2) Planned Department of Veterans Affairs FY 2009 Vehicle Acquisitions | | | | |
|---|------------------------------|--------|-----------|-------|
| 1. Planned FY 2009 Light-Duty Vehicle Acquisitions | | | | |
| | | Leased | Purchased | Total |
| Total number of Light-Duty (8,500 GVWR) - Vehicle Acquisitions | | 1,327 | 200 | 1,527 |
| Exemptions | Fleet Size | 14 | 0 | 14 |
| | Geographic | 209 | 53 | 262 |
| | Law Enforcement | 79 | 6 | 85 |
| | Non-MSA Operation (fleet) | 48 | 3 | 51 |
| | Non-MSA Operation (vehicles) | 201 | 0 | 201 |
| EPACT Covered Acquisitions | | 776 | 138 | 914 |
| 2. Planned FY 2009 AFV Acquisitions | | | | |
| Vehicle | | Leased | Purchased | Total |
| Sedan | E-85 Flex-Fuel Compact | 339 | 10 | 349 |
| Sedan | E-85 Flex-Fuel Midsize | 264 | 9 | 273 |
| Sedan | E-85 Flex-Fuel Large | 11 | 5 | 16 |
| Pickup 4x2 | E-85 Flex-Fuel | 23 | 30 | 53 |
| Pickup 4x4 | E-85 Flex-Fuel | 12 | 6 | 18 |
| SUV 4x2 | E-85 Flex-Fuel | 6 | 1 | 7 |
| SUV 4x4 | E-85 Flex-Fuel | 32 | 2 | 34 |
| Minivan 4x2 (Passenger) | E-85 Flex-Fuel | 166 | 28 | 194 |
| Minivan 4x4 (Passenger) | E-85 Flex-Fuel | 6 | 2 | 8 |
| Minivan 4x2 (Cargo) | E-85 Flex-Fuel | 4 | 0 | 4 |
| Van 4x2 (Passenger) | E-85 Flex-Fuel | 16 | 6 | 22 |
| Van 4x2 (Cargo) | E-85 Flex-Fuel | 2 | 0 | 2 |
| Van 4x4 (Cargo) | E-85 Flex-Fuel | 1 | 0 | 1 |
| Pickup MD | CNG Bi-Fuel | 1 | 0 | 1 |
| Van MD (Passenger) | E-85 Flex-Fuel | 11 | 5 | 16 |
| Total Number of AFV Acquisitions | | 894 | 104 | 998 |
| 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 | | | | 108 |
| Total AFV Acquisitions with Credits | | 894 | 104 | 1,106 |
| AFV Percentage of Covered Light-Duty Vehicle Acquisition | | | | 121 % |

ATTACHMENT C

| (3) Projected Department of Veterans Affairs FY 2010 Vehicle Acquisitions | | | | |
|---|------------------------------|--------|-----------|-------|
| 1. Projected FY 2010 Light-Duty Vehicle Acquisitions | | | | |
| | | Leased | Purchased | Total |
| Total number of Light-Duty (8,500 GVWR) - Vehicle Acquisitions | | 1,091 | 126 | 1,217 |
| Exemptions | Fleet Size | 9 | 0 | 9 |
| | Geographic | 205 | 55 | 260 |
| | Law Enforcement | 40 | 0 | 40 |
| | Non-MSA Operation (fleet) | 50 | 1 | 51 |
| | Non-MSA Operation (vehicles) | 141 | 0 | 141 |
| EPACT Covered Acquisitions | | 646 | 70 | 716 |
| 2. Projected FY 2010 AFV Acquisitions | | | | |
| Vehicle | | Leased | Purchased | Total |
| Sedan | E-85 Flex-Fuel Compact | 243 | 3 | 246 |
| Sedan | E-85 Flex-Fuel Midsize | 296 | 3 | 299 |
| Pickup 4x2 | E-85 Flex-Fuel | 16 | 5 | 21 |
| Pickup 4x4 | E-85 Flex-Fuel | 7 | 2 | 9 |
| SUV 4x2 | E-85 Flex-Fuel | 4 | 0 | 4 |
| SUV 4x4 | E-85 Flex-Fuel | 20 | 4 | 24 |
| Minivan 4x2 (Passenger) | E-85 Flex-Fuel | 166 | 32 | 198 |
| Minivan 4x4 (Passenger) | E-85 Flex-Fuel | 0 | 2 | 2 |
| Minivan 4x2 (Cargo) | E-85 Flex-Fuel | 6 | 2 | 8 |
| Van 4x2 (Passenger) | E-85 Flex-Fuel | 12 | 11 | 23 |
| Van 4x4 (Passenger) | E-85 Flex-Fuel | 2 | 0 | 2 |
| Van 4x2 (Cargo) | E-85 Flex-Fuel | 2 | 0 | 2 |
| Van MD (Passenger) | CNG Bi-Fuel | 1 | 0 | 1 |
| Van MD (Passenger) | E-85 Flex-Fuel | 8 | 5 | 13 |
| Total Number of AFV Acquisitions | | 783 | 69 | 852 |
| 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 | | | | 49 |
| Total AFV Acquisitions with Credits | | 783 | 69 | 901 |
| AFV Percentage of Covered Light-Duty Vehicle Acquisition | | | | 126 % |