



DEPARTMENT OF THE NAVY
HEADQUARTERS UNITED STATES MARINE CORPS
2 NAVY ANNEX
WASHINGTON, DC 20380-1775

IN REPLY REFER TO:

11240
LFS-24

Ms. Shabnam Fardanesh
U.S. Department of Energy
Office of FreedomCar and Vehicle Technologies
1000 Independence Avenue, SW
Washington, DC 20585

Dear Ms. Fardanesh:

As required by Executive Order 13149 the enclosure contains the amended United States Marine Corps FY 2003 Alternate Fueled Vehicle Report. Should there be questions regarding this Report, our point of contact is Mr. Barry Smallwood, LFS-2, at commercial (703) 695-7010 or DSN 225-7010.

Sincerely,

anwibh

Encl:

(1) Fleet amended AFV Program Report

Copy to:

OASN (I&E)

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UNITED STATE MARINE CORPS
Fleet AFV Program Report for Fiscal Year 2003
April 20, 2004

This report presents the Marine Corps data on the number of alternative fuel vehicles (AFVs) acquired in fiscal year (FY) 2003, and our planned acquisitions and projections for FY 2004 and FY 2005. The report has been developed in accordance with the Energy Policy Act of 1992 (EPAct) (42 U.S.C. 13211-13219) as amended by the Energy Conservation Reauthorization Act of 1998 (Public Law 105-388) (ECRA), and Executive Order 13149 (signed by the President in April 2000). As shown in Figure 1, the Marine Corps exceeded the 75 percent AFV-acquisition requirement of 941 credits by acquiring 1277 AFV credits in FY 2003. Planning estimates indicate a similar level of compliance for FY 2004 and FY 2005 with acquisitions of 1057 and 1261 AFV credits, respectively. In addition to the stated AFV credits for FY 2004 and FY 2005 there will be additional AFV credits from the increased use of Biodiesel. Detailed vehicle acquisition tables are shown in attachments (a)thru(c).

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. 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. The Energy Conservation and Reauthorization Act of 1998 amended 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 up to 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 of each year. Executive Order 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 1 mpg by FY 2002 and 3 mpg by FY 2005, and using other fleet efficiency measures.

United States Marine Corps Approach to Compliance with EPAct and E.O. 13149

To achieve compliance with the legislative mandates of EPAct and E.O. 13149, the Marine Corps will acquire 75 percent of new light-duty vehicles as AFVs. The Marine Corps will develop the fueling infrastructure necessary to use alternate fuels a majority of the time. The Marine Corps has established a monthly surcharge with GSA to cover AFV incremental costs. We will also acquire light duty vehicles with higher fuel economy: 1 mpg in FY 2002 and 3 mpg in FY 2005.

United States Marine Corps Fleet Compliance for FY 2003

Figure 1, is a graphical depiction of AFV acquisitions by the Marine Corps during FY 2003, with projections for FY 2004 and FY 2005. The Marine Corps acquired 2713 light-duty vehicles (LDVs) in fiscal year 2003, of which 764 were AFVs. In accordance with the Energy Policy Act of 1992, the Marine Corps exempted the following FY 2003 acquisitions: 105-law enforcement LDVs and 1354 LDVs assigned to fleets (primarily Recruiting Stations) with less than 20 vehicles and which are not centrally fueled. The adjusted FY 2003 AFV requirement was 941 vehicles. The Marine Corps gained an additional 179 credits by acquiring dedicated light, medium, and heavy-duty AFVs, and 334 credits by utilizing Bio-diesel, giving us a total of 1277 AFV credits. This exceeded EPAct requirements by 27 percent. Attachment (a) provides detailed information on the number and types of light-duty vehicles leased or purchased by the Marine Corps during FY 2003.

DATA FOR ILLUSTRATIVE PURPOSES ONLY

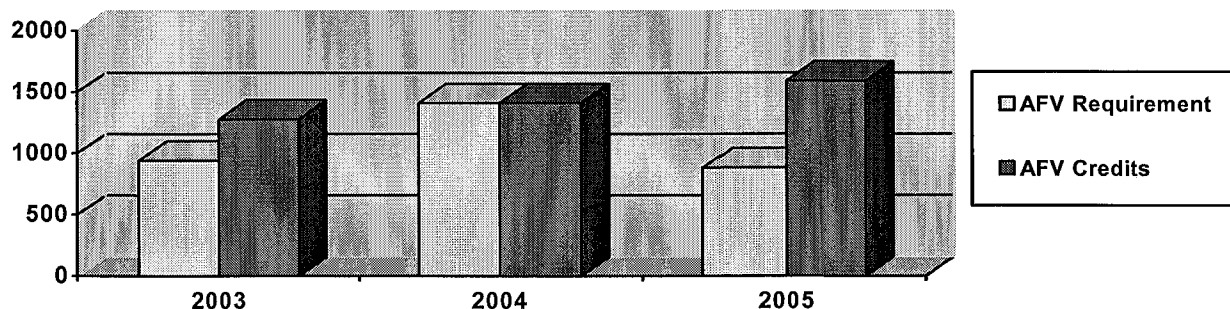


Figure 1. Summary of Marine Corps FY 2003 AFV Acquisitions

Special Projects of the Marine Corps Fleet Related to AFV and Infrastructure Acquisitions

Several significant projects are underway in the Marine Corps. The Marine Corps continues to concentrate our CNG vehicles where existing CNG infrastructure is already established.

Neighborhood Electric Vehicles (NEVs) have been successfully utilized at several locations for light hauling and administrative purposes. All Marine Corps installations are finding unique ways to utilize NEV's and reduce the number of gasoline burning vehicles. In 2003 the Marine Corps increased its electric vehicle fleet (NEV's) by 132.

Throughout the 2004 timeframe, several installations will be provided with above ground E-85 tanks. This infrastructure will allow the Marine Corps to concentrate not only on CNG but E-85 vehicles and to increase the amounts of alternate fuels utilized. Due to the Marine Corps forward thinking effort to place new technology vehicles into its vehicle fleet, the Marine Corps base at Camp Lejeune North Carolina was selected in 2002 to receive a DoD grant through the E-85 coalition for \$25,000 to place an E-85 fuel site there. A 2004 time frame is planned for completion.

During FY 2003, approximately 80% of the Marine Corps installations have started to, or continued the use of Biodiesel. As a result, for the year (FY 2003), the Marine Corps earned 375 AFV credits of which 334 were credited to FY 2003 FAST report. It is the Marine Corps goal to utilize Biodiesel in all Garrison Mobile Equipment (GME) diesel powered vehicles.

The Marine Corps Recruit Depot (MCRD), San Diego Ca. has been selected, by the National Automotive Center (NAC), as a site location for a Hydrogen refueling station and Hydrogen vehicle (Fuel Cell) test site. Beginning 2nd Quarter FY 2004, phase (1) of a four-phase project will begin that will run for two (2) years. In addition to the Hydrogen test site at MCRD, Marine Corps Base Camp Pendleton has been selected by the Navel Facilities Engineering Service Center (NFESC) for an Environmental Security Technology Certification Program project to test the Hydrogen Fuel Cell vehicles and infrastructure in a real world environment. The Camp Pendleton project will begin during FY 2004 and run through FY 2006.

Alternative Fuel Use by Marine Corps Fleets in FY 2003

Table 1 presents fuel use data for the Marine Corps in FY 2003. The majority of the alternative fuel used by the Marine Corps comes from central fueling points located on Marine Corps

installations. About one third of the Marine Corps' GSA leased fleet are recruiting vehicles that are sparsely populated throughout the United States and rely exclusively on the commercial market for refueling. The small number of vehicles (less than five) at each location does not support a central AFV fueling location, nor does it encourage commercial companies to invest in AFV fueling infrastructure. For this reason it is extremely difficult for the Marine Corps to meet EPAct requirements in these locations.

Table 1. Marine Corps Fuel Use in FY 2003

Fuel Type	Quantity	Unit
Biodiesel - B100	168,828	GGE (Gas Gallon Equivalent)
CNG	69,878	GGE
E-85	3,154	GGE
Propane	3,897	GGE
Gas	6,551,942	GGE
Diesel	1,125,079	GGE
Electric	0	GGE

Marine Corps Fleet AFV Acquisitions for FY 2004 and FY 2005

Attachments (b) and (c) provide detailed information on projected vehicle acquisitions and inventory for the Marine Corps during FY 2004 and FY 2005. In FY 2004, the Marine Corps' planned EPAct Covered Acquisitions is 1880 light-duty vehicles. The Marine Corps' FY 2004 planned AFV credits of 1411 will meet the EPAct requirement of 1410 AFVs. The Marine Corps projects the FY 2005 AFV acquisition credits at 1591, thereby exceeding the EPAct covered acquisitions of 1178 AFVs by 60 percent.

Petroleum Savings

Attachment (d) provides baseline and fuel consumption data. In FY 1999 the Marine Corps baseline petroleum consumption was estimated at 10,527,804 GGE. FY 2000 petroleum consumption total usage could not be compiled due to the unavailability of the GSA wet lease fuel usage data. In lieu of this GSA data, we estimate our FY 2000 total petroleum fuel usage to be 9,687,458 GGE. This represents a decrease in fuel consumption of 840,346 GGE, for a reduction of 8.7 percent. FY 2001 total petroleum fuel usage was 8,835,295 GGE. Representing an additional decrease in fuel consumption of 852,163 GGE, for a reduction of 9.6 percent from the FY 2000 estimated fuel usage. FY 2002 total petroleum fuel usage was 7,948,855 GGE. Representing an additional decrease in fuel consumption of 886,440 GGE, for a reduction of 10 percent from the FY 2001 estimated fuel usage. FY 2003 total petroleum fuel consumption is 7,677,021 GGE. Representing an additional decrease in fuel consumption of 271,834 GGE, for a reduction of 2.5 percent from the FY 2002 estimated fuel usage. Figure (2) graphically illustrates the Marine Corps fuel reduction achieved based on the FY 1999 baseline. The Marine Corps total fuel reduction to date is 2,850,783 GGE or 27.1 percent of the FY 1999 baseline.

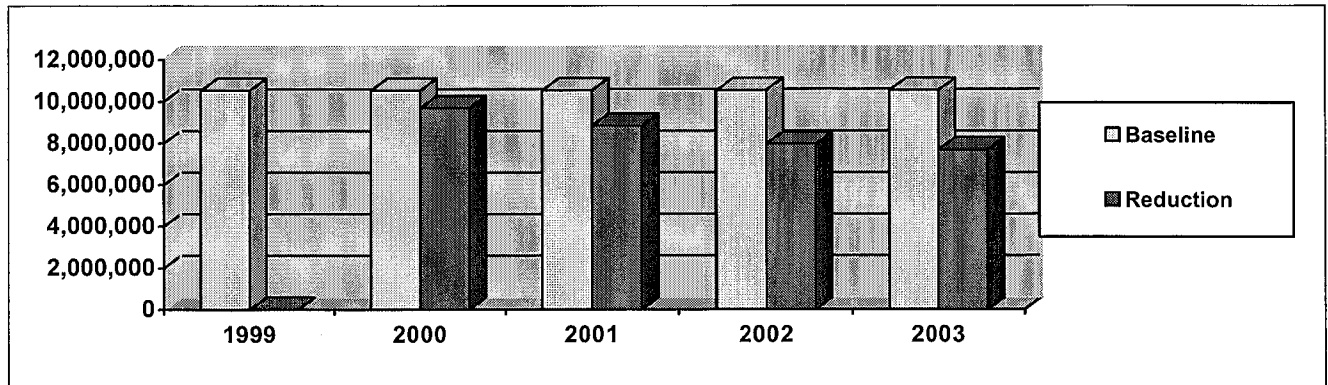


Figure 2. Summary of Marine Corps Fuel Reduction

Summary

As detailed in this report and the attached appendices, the Marine Corps exceeded the AFV acquisition requirements of EPA Act in FY 2003 and expects to repeat this accomplishment in FY 2004 and 2005. The Marine Corps reduction in petroleum consumption is 27.1 percent from the FY 1999 baseline. We will continue to implement our strategy that put us over the 20 percent fuel reduction in FY 2002, (3 years earlier than mandated by the Executive Order). The Marine Corps will aggressively continue to implement its strategy that will result in continued reduction in our annual petroleum consumption, which will lessen our dependence for foreign oils.

ATTACHMENT A:

Actuals United States Marine Corps FY 2003 Vehicle Acquisitions					
Actuals FY 2003 Light-Duty Vehicle Acquisitions					Total Vehicle Inventory
		Leased	Purchased	Total	
Total number of Light-Duty (8,500 GVWR) - Vehicle Acquisitions		2,703	10	2,713	7,687
Exemptions	Fleet Size	227	3	230	909
	Geographic	224	2	226	1,706
	Law Enforcement	105	0	105	92
	Non-MSA Operation (fleet)	897	1	898	2,740
	Non-MSA Operation (vehicles) (From Section I[b])	(n/a)	(n/a)	0	(n/a)
EPACT Covered Acquisitions		1,250	4	1,254	2,240
Actuals FY 2003 AFV Acquisitions					Total Vehicle Inventory
Vehicle		Leased	Purchased	Total	
Sedan	CNG Bi-Fuel Subcompact	23	0	23	84
Sedan	CNG Dedicated Subcompact	4	0	4	16
Sedan	CNG Bi-Fuel Compact	31	0	31	68
Sedan	E-85 Flex-Fuel Compact	176	0	176	178
Sedan	E-85 Flex-Fuel Midsize	11	0	11	50
Sedan	CNG Bi-Fuel Large	0	0	0	1
Sedan	CNG Dedicated Large	18	0	18	32
Pickup 4x2	CNG Bi-Fuel	23	0	23	161
Pickup 4x2	CNG Dedicated	18	0	18	73
Pickup 4x2	E-85 Flex-Fuel	60	0	60	316
Pickup 4x2	Electric Dedicated	0	0	0	1
Pickup 4x2	LPG Bi-Fuel	8	0	8	24
Pickup 4x4	CNG Bi-Fuel	10	0	10	49
Pickup 4x4	E-85 Flex-Fuel	6	0	6	2
SUV 4x2	E-85 Flex-Fuel	6	0	6	3
SUV 4x4	CNG Bi-Fuel	0	0	0	3
SUV 4x4	E-85 Flex-Fuel	44	0	44	18
Van 4x2	CNG Bi-Fuel	3	0	3	35
Van 4x2	CNG Dedicated	1	0	1	72
Van 4x2	E-85 Flex-Fuel	223	0	223	438
Van 4x2	M-85 Flex-Fuel	4	0	4	0

Bus	CNG Bi-Fuel	0	0	0	5
Bus	CNG Dedicated	2	0	2	15
Pickup MD	CNG Bi-Fuel	1	0	1	69
Van MD	CNG Bi-Fuel	25	0	25	85
Van MD	CNG Dedicated	67	0	67	111
MD 8,501-16,000 GVWR	CNG Bi-Fuel	0	0	0	16
MD 8,501-16,000 GVWR	CNG Dedicated	0	0	0	3
Emergency & Special Purpose MD 8,501-16,000 GVWR	CNG Bi-Fuel	0	0	0	1
HD 16,001 + GVWR	CNG Bi-Fuel	0	0	0	4
HD 16,001 + GVWR	CNG Dedicated	0	0	0	4
Emergency & Special Purpose HD 16,001 + GVWR	CNG Bi-Fuel	0	0	0	1
Emergency & Special Purpose HD 16,001 + GVWR	CNG Dedicated	0	0	0	1
Total Number of AFV Acquisitions		764	0	764	1,939
Zero Emission Vehicle Credits		0	0	0	
Dedicated Light-Duty AFV Credits		41	0	41	
Dedicated Medium-Duty AFV Credits		138	0	138	
Dedicated Heavy-Duty AFV Credits		0	0	0	
Biodiesel Fuel Usage Credits - Actuals				334	
Total AFV Acquisitions with Credits		943	0	1,277	
AFV Percentage of Covered Light-Duty Vehicle Acquisition				102 %	

ATTACHMENT B :

Planned United States Marine Corps FY 2004 Vehicle Acquisitions				
<i>Planned FY 2004 Light-Duty Vehicle Acquisitions</i>				
		Leased	Purchased	Total
Total number of Light-Duty (8,500 GVWR) - Vehicle Acquisitions		3,045	24	3,069
Exemptions	Fleet Size	79	7	86
	Geographic	298	7	305
	Law Enforcement	49	0	49
	Non-MSA Operation (fleet)	749	0	749
	Non-MSA Operation (vehicles) (From Section I[b])	(n/a)	(n/a)	0
EPACT Covered Acquisitions		1,870	10	1,880
<i>Planned FY 2004 AFV Acquisitions</i>				
	Vehicle	Leased	Purchased	Total
Sedan	CNG Bi-Fuel Subcompact	20	0	20
Sedan	CNG Dedicated Subcompact	22	0	22
Sedan	CNG Bi-Fuel Compact	50	0	50
Sedan	E-85 Flex-Fuel Compact	164	0	164
Sedan	E-85 Flex-Fuel Midsize	49	0	49
Sedan	CNG Dedicated Large	3	0	3
Pickup 4x2	CNG Bi-Fuel	24	0	24
Pickup 4x2	CNG Dedicated	17	0	17
Pickup 4x2	E-85 Flex-Fuel	70	3	73
Pickup 4x2	Electric Dedicated	1	0	1
Pickup 4x4	CNG Bi-Fuel	24	0	24
Pickup 4x4	CNG Dedicated	6	0	6
Pickup 4x4	E-85 Flex-Fuel	8	0	8
SUV 4x2	E-85 Flex-Fuel	6	0	6
SUV 4x4	CNG Bi-Fuel	5	0	5
SUV 4x4	E-85 Flex-Fuel	18	0	18
Van 4x2	CNG Bi-Fuel	13	0	13
Van 4x2	CNG Dedicated	3	0	3
Van 4x2	E-85 Flex-Fuel	382	0	382
Bus	CNG Bi-Fuel	1	0	1
Pickup MD	CNG Bi-Fuel	6	0	6
Van MD	CNG Bi-Fuel	32	0	32
Van MD	CNG Dedicated	20	0	20
MD 8,501-16,000 GVWR	CNG Dedicated	0	5	5
MD 8,501-16,000 GVWR	LPG Bi-Fuel	0	3	3
Total Number of AFV Acquisitions		944	11	955
Zero Emission Vehicle Credits		1	0	1
Dedicated Light-Duty AFV Credits		51	0	51
Dedicated Medium-Duty AFV Credits		40	10	50
Dedicated Heavy-Duty AFV Credits		0	0	0

Biodiesel Fuel Usage Credits - Planned			354
Total AFV Acquisitions with Credits	1,036	21	1,411
AFV Percentage of Covered Light-Duty Vehicle Acquisition			75 %

ATTACHMENT C:

Projected United States Marine Corps FY 2005 Vehicle Acquisitions				
<i>Projected FY 2005 Light-Duty Vehicle Acquisitions</i>				
		Leased	Purchased	Total
Total number of Light-Duty (8,500 GVWR) - Vehicle Acquisitions		2,310	21	2,331
Exemptions	Fleet Size	56	5	61
	Geographic	303	6	309
	Law Enforcement	73	0	73
	Non-MSA Operation (fleet)	709	1	710
	Non-MSA Operation (vehicles) (From Section I[b])	(n/a)	(n/a)	0
EPACT Covered Acquisitions		1,169	9	1,178
<i>Projected FY 2005 AFV Acquisitions</i>				
	Vehicle	Leased	Purchased	Total
Sedan	CNG Bi-Fuel Subcompact	22	0	22
Sedan	CNG Dedicated Subcompact	17	0	17
Sedan	CNG Bi-Fuel Compact	9	0	9
Sedan	E-85 Flex-Fuel Compact	458	0	458
Sedan	E-85 Flex-Fuel Midsize	23	0	23
Sedan	CNG Dedicated Large	21	0	21
Pickup 4x2	CNG Bi-Fuel	27	0	27
Pickup 4x2	CNG Dedicated	29	0	29
Pickup 4x2	E-85 Flex-Fuel	122	0	122
Pickup 4x2	LPG Bi-Fuel	8	0	8
Pickup 4x4	CNG Bi-Fuel	8	0	8
Pickup 4x4	CNG Dedicated	4	0	4
Pickup 4x4	E-85 Flex-Fuel	9	0	9
SUV 4x2	E-85 Flex-Fuel	5	0	5
SUV 4x4	E-85 Flex-Fuel	35	0	35
Van 4x2	CNG Bi-Fuel	13	0	13
Van 4x2	CNG Dedicated	21	0	21
Van 4x2	E-85 Flex-Fuel	212	0	212
Van 4x2	M-85 Flex-Fuel	5	0	5
Pickup MD	CNG Bi-Fuel	2	0	2
Pickup MD	E-85 Flex-Fuel	8	0	8
Van MD	CNG Bi-Fuel	21	0	21
Van MD	CNG Dedicated	29	0	29
MD 8,501-16,000 GVWR	CNG Dedicated	1	0	1
Total Number of AFV Acquisitions		1,109	0	1,109
Zero Emission Vehicle Credits		0	0	0
Dedicated Light-Duty AFV Credits		92	0	92
Dedicated Medium-Duty AFV Credits		60	0	60
Dedicated Heavy-Duty AFV Credits		0	0	0
Biodiesel Fuel Usage Credits - Projected				330

Total AFV Acquisitions with Credits	1,261	0	1,591
AFV Percentage of Covered Light-Duty Vehicle Acquisition			135 %

ATTACHMENT D:

EO 13149 Covered Petroleum Consumption in GGE

	FY 1999 Baseline	FY2000	FY2001	FY2002	FY2003	FY2004	FY2005
Gasoline	5,559,000	2,537,161	6,856,725	6,537,151	6,551,942		
Diesel	4,968,804	1,624,195	1,994,157	1,213,179	532,088		
Diesel component from biodiesel		0	0	198,525	592,991		
TOTAL	10,527,804	4,161,356	8,850,882	7,948,855	7,677,021		
Reduction*	N/A	60.5 %	15.9 %	24.5 %	27.1 %		

* Reduction is the % reduction compared to the FY 1999 Baseline Total

Alternative Fuel Consumption (in GGE)

	FY2000	FY2001	FY2002	FY2003	FY2004	FY2005
CNG	85,420	554,425	119,826	69,878		
LNG	0	0	0	0		
LPG	7,425	16,032	6,502	3,897		
E-85	3,168	260,772	379,326	3,154		
Electric	116	15,042	81	0		
M-85	0	0	2,842	3		
Biodiesel (B100)*	0	0	65,677	168,828		
TOTAL	96,129	846,271	574,254	245,760		
Estimated Total Fuel Used in AFVs	96,129	1,416,459	1,671,175	1,569,920		
% of Alt Fuel Use in AFVs w/o biodiesel¹	100.00 %	59.745 %	30.432 %	4.9004 %		

*Biodiesel is calculated at 20% of the reported B20 and 100% of the reported B100 fuel used in the Section III Actual Fuel Cost/Consumption by Fuel Type data input screen. Biodiesel is *not* included in the calculation of total fuels used in AFVs because biodiesel itself is not burned in *Alternatively Fueled Vehicles*.