

**DEPARTMENT OF COMMERCE**

**AFV REPORT**

**FISCAL YEAR**

**2002**



## U.S. Department of Commerce Fleet AFV Report for Fiscal Year 2002

This is the *U.S. Department of Commerce's Fleet Alternative Fuel Vehicle (AFV) Report for FY 2002*, including planned acquisitions and projections for FY 2003 and FY 2004. The report has been developed in accordance with the Energy Policy Act of 1992 (Public Law (P.L.) 102-486), as amended by the Energy Conservation Reauthorization Act of 1998 (P. L.105-388) (ECRA), and Executive Order 13149, *Greening the Government Through Federal Fleet and Transportation Efficiency* (April 2000).

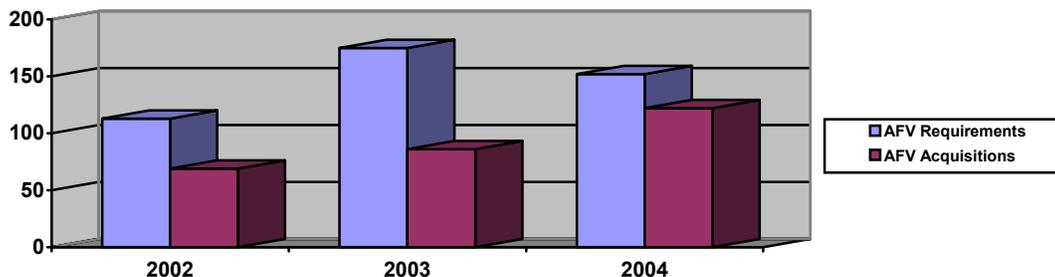
For FY 2002, the Department of Commerce (DOC) acquired 50 AFVs qualifying for credits out of a total of 151 "covered" vehicles bought or leased during the year. "Covered" vehicles, subject to P.L. 102-486 requirements, are described below. Detailed vehicle acquisition tables are shown on Attachment A.

### Legislative Requirements

P.L. 102-486 requires that 75 percent of all covered light-duty vehicles acquired for Federal fleets in FY 1999 and beyond be AFVs (where the fleets have 20 or more light duty 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. P.L. 102-486 also sets a goal of using replacement fuels to displace at least 30 percent of the annual projected consumption of motor fuel in the United States by the year 2010. The Energy Conservation and Reauthorization Act of 1998 amended P.L. 102-486 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 P.L. 102-486 requirements.

The head of each Federal agency must prepare and submit an annual report to Congress outlining the agency's AFV acquisitions and future plans. 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). Fuel consumption is to be reduced 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.

Figure 1. **AFV acquisitions by the Department of Commerce in FY 2002 and projections for FY 2003 and FY 2004**



**Department of Commerce Fleet Compliance with EAct – FY 2002**

In FY 2002, DOC converted 46 percent of its light-duty covered vehicles to AFVs. To fulfill the requirements of EAct, the Department is in the process of implementing its *Compliance Strategy Plan for Executive Order 13149*. The *Strategy* has been issued to DOC fleet managers. DOC will review quarterly execution reports to monitor the EAct progress of each bureau.

As outlined in the *Strategy*, DOC has coordinated with the General Services Administration (GSA) to replace leased petroleum-fueled vehicles with alternative fuel vehicles. In addition, DOC is pursuing a Fleet Surcharge Program to help offset the incremental costs of AFVs. The incremental cost of an AFV can be several thousand dollars, depending on the AFV type. The Fleet Surcharge Program places a small surcharge on each Departmental fleet vehicle leased from GSA. The funds from this program are placed in a separate account used to pay for the incremental costs of AFVs acquired by the Department each year. On September 30, 2002, the DOC fleet consisted of 1,977 vehicles. Since 51 percent of the fleet (1,013 vehicles) is leased through GSA, we are optimistic that the surcharge initiative will generate sufficient funding to defray the incremental costs and facilitate the acquisition of AFVs.

DOC will meet the 75 percent acquisition requirement set forth in P.L. 102-486. Specific actions that are underway to meet this goal are provided in the section below entitled *Department of Commerce Fleet Strategy for FY 2003 and FY 2004*.

**Table 2. The Department of Commerce Fuel Use in FY 2002**

Fuel Type	Quantity	Unit
Biodiesel – B100		Gallons
CNG	3,997	Gallons @ 2,400 psi, 70°F
+62CNG		Hundred cu. ft.
Diesel	154,690	Gallons
E-85	94,667	Gallons
Gasoline	849,193	Gallons
Methanol		Gallons
Propane		Gallons

**Department of Commerce Use of Alternative Fuel Compliance with Executive Order 13149 – FY 2002**

Table 2 represents alternative fuel use data, detailed in Attachment D, for the Department of Commerce fleet in FY 2002. We reduced our petroleum consumption by 11.4 percent since the FY99 baseline was established. The following inhibitors discussed below are shared among all agencies within the Federal Government.

Product code standards have not been universally adopted by retailers, which means that drivers are purchasing alternative fuels such as ethanol, but retailers are coding expenditures only as either gasoline or diesel. To remedy this deficiency, GSA is actively engaged in adopting standardized product codes, alerting the industry, and educating retailers of this problem and why it needs to be corrected.

Secondly, the Voyager Fleet card is not widely accepted. If a retailer will not accept the Voyager card, the driver must use a general purchase card to pay for fuel, which does not result in a record of consumption that can be tracked through a consolidated data source. Manual collection and compilation of non-Voyager receipts is laborious and difficult to track. DOC is working with U.S. Bank to assist in promoting wider acceptance of the Voyager card and is also looking at other platforms that will generate more comprehensive reports.

Finally, flex-fuel vehicles, which are designed to operate on gasoline, as well as alternative fuel (E-85), are not using E-85 fuel to the maximum extent possible. We plan an aggressive marketing campaign to educate all DOC vehicle drivers and will increase fleet program oversight to increase E-85 usage.

### **Department of Commerce Fleet Strategy for FY 2003 and FY 2004**

Attachments B and C provide detailed information on projected vehicle acquisitions and inventory for the DOC fleets for FY 2003 and FY 2004. We believe that the data reported in the Web-based Federal Automotive Statistical Tool (FAST) provided for FY 2003 and FY 2004 is understated, since, in some cases, bureau fleet managers were unable to complete projections in time to be included in the report. We will work with DOC fleet managers to ensure that this does not recur.

To ensure compliance with EPA Act and Executive Order 13149, mandatory guidelines were issued on February 27, 2003, to all DOC bureaus requiring that all "covered" light-duty petroleum-fueled vehicles due for replacement be replaced with AFVs. Exceptions to this requirement must be justified and approved by the Associate Director, Office of Administrative Operations. The mandatory guidelines also require that alternative fuel be used in flex-fuel and bi-fuel AFVs whenever possible. Reasons for using petroleum in these AFVs must be justified in the bureau's quarterly report. Included in the mandatory guidelines are the following replacement standards for petroleum-fueled vehicles:

- Substituting smaller vehicles
- Substituting fuel-efficient models
- Replace 4x4 vehicles with 4x2 vehicles
- Replace 8-cylinder vehicles with 6-cylinder vehicles

Further, in order to increase fuel efficiency in every area possible, DOC fleet managers have been instructed to substitute more energy efficient vehicles when replacements are required for "non-covered" vehicles, or even when replacement of a "covered" light-duty vehicle with a non-AFV is fully justified.

In order to reach its goals, DOC is taking steps to better educate drivers and fleet managers on the legal and executive order requirements for AFVs. We are educating fleet managers through newsletters that provide information on program goals and resources available through GSA and DOE websites. DOC is developing promotional materials and sharing "best practices" with bureaus through quarterly fleet manager meetings. An information guide providing refueling instructions, locations, and directions to alternative fuel stations within metropolitan statistical areas (areas with populations of more than 250,000 according to the 1980 census data) has also been prepared by DOC for distribution to fleet managers.

Also in the effort to achieve compliance, DOC is supporting and assisting fleet managers by providing possible solutions to enable successful acquisition and management of an AFV fleet. For example, fleet managers in cities participating in the Department of Energy (DOE) Clean Cities Program have been

advised to contact their Clean City Coordinator and explore possibilities to partnership in fuel programs. Fleet managers are also encouraged to explore alternative fuel fleet acquisitions through DOE's city grant process, if eligible.

Additionally, DOC met with the GSA to develop an acquisition plan to increase the number of AFVs department-wide. The Fleet Surcharge Program, discussed earlier in this report, will be part of the acquisition strategy. GSA has also agreed to provide AFVs as replacement vehicles for GSA-leased vehicles based on standards in FY 2003 and FY 2004.

### **Petroleum Savings**

The annual per-vehicle fuel consumption rates for new light-duty vehicles were calculated from an average per-vehicle fuel consumption rate. The increased fleet average fuel economy for the given fiscal years is as follows:

$$\text{Annual Savings for FY 2002 vs. FY 1999} = 129 * (584 - (584 * 17/18)) = 4,185 \text{ GGE}$$

$$\text{Annual Savings for FY 2003 vs. FY 1999} = 4185 + 66 * (584 - (584 * 17/18)) = 6,327 \text{ GGE}$$

$$\text{Annual Savings for FY 2004 vs. FY 1999} = 6327 + 66 * (584 - (584 * 17/19)) = 10,384 \text{ GGE}$$

## Actuals Department of Commerce FY 2002 Vehicle Acquisitions

Actuals FY 2002 Light-Duty Vehicle Acquisitions				Total Vehicle Inventory
	Leased	Purchased	Total	
Total number of Light-Duty (8,500 GVWR) - Vehicle Acquisitions				1,455
	149	30	179	
Fleet Size	0	0	0	220
Geographic	0	3	3	160
Law Enforcement	7	12	19	184
Non-MSA Operation (fleet)	0	3	3	114
Non-MSA Operation (vehicles)				
Exemptions (From Section I[b])	(n/a)	(n/a)	3	(n/a)
<b>EPACT Covered Acquisitions</b>	<b>142</b>	<b>12</b>	<b>151</b>	<b>777</b>
Actuals FY 2002 AFV Acquisitions				Total Vehicle Inventory
Vehicle	Leased	Purchased	Total	
Sedan	0	0	0	1
Sedan	0	0	0	1
Sedan	5	0	5	11
St. Wagon	0	0	0	11
Pickup 4x2	0	0	0	1
Pickup 4x2	0	0	0	1
Pickup 4x2	4	0	4	29
Pickup 4x2	3	0	3	3
Pickup 4x2	0	0	0	1
Pickup 4x4	0	0	0	23
Pickup 4x4	0	0	0	6
Pickup 4x4	1	0	1	4
SUV 4x4 4dr	0	0	0	39
SUV 4x4 4dr	0	0	0	6
Van 4x2	20	0	20	81
Van 4x2	16	0	16	18
Pickup 4x2	0	0	0	5
Van 4x2	1	0	1	0
Van 4x2	0	0	0	2
Van 4x2	0	0	0	5
Van 4x2	0	0	0	1
<b>Total Number of AFV Acquisitions</b>	<b>50</b>	<b>0</b>	<b>50</b>	<b>249</b>
Zero Emission Vehicle Credits	0	0	0	
Dedicated Light-Duty AFV Credits	19	0	19	
Dedicated Medium-Duty AFV Credits	0	0	0	
Dedicated Heavy-Duty AFV Credits	0	0	0	
Biodiesel Fuel Usage Credits - Actuals			0	
<b>Total AFV Acquisitions with Credits</b>	<b>69</b>	<b>0</b>	<b>69</b>	
<b>AFV Percentage of Covered Light-Duty Vehicle Acquisition</b>			<b>46%</b>	

## Planned Department of Commerce FY 2003 Vehicle Acquisitions

### Planned FY 2003 Light-Duty Vehicle Acquisitions

		Leased	Purchased	Total
Total number of Light-Duty (8,500 GVWR) - Vehicle Acquisitions		255	30	285
	Fleet Size	0	1	1
	Geographic	21	1	22
	Law Enforcement	9	1	10
	Non-MSA Operation (fleet)	12	7	19
	Non-MSA Operation (vehicles)			
Exemptions	(From Section I(b))	(n/a)	(n/a)	0
<b>EPACT Covered Acquisitions</b>		<b>213</b>	<b>20</b>	<b>233</b>

### Planned FY 2003 AFV Acquisitions

Vehicle	Leased	Purchased	Total
Sedan (SIN 9, 9C) E-85 Flex-Fuel Compact	5	0	5
Sedan (SIN 10, 10B) E-85 Flex-Fuel Midsize	17	0	17
Pickup 4x2 (SIN 61C) E-85 Flex-Fuel Compact Ext Cab	1	0	1
Pickup 4x2 (SIN 61) E-85 Flex-Fuel Compact Reg Cab	0	1	1
Pickup 4x2 (SIN 42C) LPG Bi-Fuel Full-size Ext Cab	3	0	3
Pickup 4x2 (SIN 41, 42) CNG Bi-Fuel Full-size Reg Cab	9	3	12
Pickup 4x4 (SIN 46, 47) CNG Bi-Fuel Full-size Reg Cab	6	0	6
Pickup 4x4 (SIN 46, 47) LPG Bi-Fuel Full-size Reg Cab	1	0	1
SUV 4x2 4dr (SIN 101) E-85 Flex-Fuel Large	1	0	1
SUV 4x4 4dr (SIN 106) E-85 Flex-Fuel Large	1	0	1
SUV 4x4 4dr (SIN 105) E-85 Flex-Fuel Compact	4	1	5
SUV 4x4 4dr (SIN 105B) E-85 Flex-Fuel Midsize	2	4	6
Van 4x2 (SIN 20, 30) E-85 Flex-Fuel Compact	26	0	26
Van 4x2 (SIN 131, 134, 134B) CNG Bi-Fuel	1	0	1
<b>Total Number of AFV Acquisitions</b>	<b>77</b>	<b>9</b>	<b>86</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>77</b>	<b>9</b>	<b>86</b>
<b>AFV Percentage of Covered Light-Duty Vehicle Acquisition</b>			<b>37%</b>

## Projected Department of Commerce FY 2004 Vehicle Acquisitions

### Projected FY 2004 Light-Duty Vehicle Acquisitions

	Leased	Purchased	Total
Total number of Light-Duty (8,500 GVWR) - Vehicle Acquisitions	222		32
			254
			1
			21
			12
			17
Exemptions (From Section [b])	(n/a)		(n/a)
			0
<b>EPACT Covered Acquisitions</b>	<b>185</b>		<b>18</b>
			<b>203</b>

### Projected FY 2004 AFV Acquisitions

Vehicle	Leased	Purchased	Total
Sedan (SIN 8, 8C) CNG Bi-Fuel Subcompact	4	0	4
Sedan (SIN 9, 9C) E-85 Flex-Fuel Compact	1	0	1
Sedan (SIN 10, 10B) E-85 Flex-Fuel Midsize	8	0	8
Pickup 4x2 (SIN 61) E-85 Flex-Fuel Compact Reg Cab	0	1	1
Pickup 4x2 (SIN 42C) LPG Bi-Fuel Full-size Ext Cab	3	0	3
Pickup 4x2 (SIN 41, 42) CNG Bi-Fuel Full-size Reg Cab	9	3	12
Pickup 4x2 (SIN 41, 42) LPG Bi-Fuel Full-size Reg Cab	7	0	7
Pickup 4x4 (SIN 46, 47) CNG Bi-Fuel Full-size Reg Cab	7	0	7
Pickup 4x4 (SIN 46) E-85 Flex-Fuel Full-size Reg Cab	1	0	1
Pickup 4x4 (SIN 46, 47) LPG Bi-Fuel Full-size Reg Cab	1	0	1
SUV 4x4 4dr (SIN 106) E-85 Flex-Fuel Large	0	5	5
SUV 4x4 4dr (SIN 105) E-85 Flex-Fuel Compact	1	0	1
SUV 4x4 4dr (SIN 105B) E-85 Flex-Fuel Midsize	1	0	1
Van 4x2 (SIN 20, 30) E-85 Flex-Fuel Compact	21	0	21
Van 4x2 (SIN 20, 30) Electric Dedicated Compact	4	0	4
Van 4x2 (SIN 21, 31) CNG Dedicated Large	20	0	20
Van 4x2 (SIN 22, 24, 32, 34) CNG Bi-Fuel Large	1	0	1
<b>Total Number of AFV Acquisitions</b>	<b>89</b>	<b>9</b>	<b>98</b>
Zero Emission Vehicle Credits	4	0	4
Dedicated Light-Duty AFV Credits	20	0	20
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>113</b>	<b>9</b>	<b>122</b>
<b>AFV Percentage of Covered Light-Duty Vehicle Acquisition</b>			<b>60%</b>

Department of Commerce

Petroleum Consumption Report

Data from this report is comprised of the data submitted through the [Fuel Use and Economy](#) and [Input Fleet Data](#) screens current through FY 2002.

EO 13149 Covered Petroleum Consumption in GGE

	<b>FY 1999 Baseline</b>	<b>FY2000</b>	<b>FY2001</b>	<b>FY2002</b>	<b>FY2003</b>	<b>FY2004</b>	<b>FY2005</b>
<b>Gasoline</b>	1,063,047	1,086,565	1,883,730	849,193			
<b>Diesel</b>	69,744	133,218	50,767	154,690			
<b>Diesel component from biodiesel</b>		298	0	0			
<b>TOTAL</b>	1,132,791	1,219,783	1,934,497	1,003,883			
<b>Reduction*</b>	N/A	-7.7 %	-70.8 %	11.4 %			

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

Alternative Fuel Consumption (in GGE)

	<b>FY2000</b>	<b>FY2001</b>	<b>FY2002</b>	<b>FY2003</b>	<b>FY2004</b>	<b>FY2005</b>
<b>CNG</b>	2,129	4,732	3,997			
<b>LNG</b>	0	0	0			
<b>LPG</b>	0	0	266			
<b>E-85</b>	0	116,686	94,667			
<b>Electric</b>	0	0	0			
<b>M-85</b>	0	0	0			
<b>Biodiesel</b>	75	0	0			

(B100)\*

<b>TOTAL</b>	2,204	121,418	98,930
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<b>Estimated Total Fuel Used in AFVs</b>	*	*	142,000
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<b>% of Alt Fuel Use in AFVs w/o biodiesel<sup>1</sup></b>			69.669 %
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\*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*.

\* There is not enough data to generate results.

Average Fuel Economy of non-AFV Light Duty Vehicle Acquisitions (in mpg)

	<u>FY 1999</u>	<u>FY2000</u>	<u>FY2001</u>	<u>FY2002</u>	<u>FY2003</u>	<u>FY2004</u>	<u>FY2005</u>
	<u>Baseline</u>						
<b>Fuel Economy</b>	<u>17.0</u>	<u>0.0</u>	<u>0.0</u>	<u>18.0</u>			
<b>Change Compared to Baseline</b>		<u>*</u>	<u>*</u>	<u>1.0</u>			

\* There is not enough data to generate results.