

U.S. Department of Energy

Fleet Alternative Fueled Vehicle Acquisition Report

Compliance with EPACT 1992 and E.O. 13423 in Fiscal Year 2007

This report summarizes the U.S. Department of Energy's (DOE) fiscal year (FY) 2007 fleet performance in meeting the alternative fueled vehicle requirements in section 301 of the Energy Policy Act of 1992 (EPACT 1992) (42 U.S.C. 13212) and in meeting the petroleum reduction and alternative fuel use goals of Executive Order (E.O.) 13423, "Strengthening Federal Environmental, Energy, and Transportation Management" (72 FR 3919: January 24, 2007). E.O. 13423 revoked and replaced the provisions of the earlier E.O. 13149, "Greening the Government through Federal Fleet and Transportation Efficiency" (65 FR 24607: April 21, 2000).

Section 701 of the Energy Policy Act of 2005 (EPACT 2005) (Public Law 109-58) amended EPACT 1992 to require that agencies use alternative fuel in all dual-fuel AFVs except in vehicles for which the agency received a waiver from DOE. (42 U.S.C. 6374(a)(3)(E) Implementation of this provision began during FY 2007 and DOE and other agencies requested waivers from the requirement for FY 2008. DOE will evaluate agency performance in meeting the alternative fuel use requirement at the end of FY 2008.

Exhibit 1 summarizes DOE's progress in meeting alternative fueled vehicle acquisition, petroleum reduction and alternative fuel use requirements.

Exhibit 1. DOE's Performance in Meeting EPACT 1992 and E.O. 13423 Requirements, FY 2007

Authority/ Mandate	Performance Measure	Goal/Requirement	DOE Performance in FY 2007
EPACT 1992	Alternative fueled vehicle (AFV) acquisitions	75 percent of the 817 covered light-duty vehicles (LDV) acquired in FY 2007 must be AFVs	Acquired 1,020 AFVs and earned 303 additional credits. ¹ Total of 1,323 credits or 162 percent of covered acquisitions. Compliant
E.O. 13423	Reduce consumption of petroleum by 2 percent annually through the end of FY 2015 from FY 2005 baseline ²	Reduce consumption of petroleum to below FY 2007 target of 7,094,285 gasoline gallon equivalents (GGE)	Reduced consumption of petroleum to 6,675,721 GGE (6 percent under the FY 2007 target). Compliant
	Increase annual alternative fuel consumption by 10 percent (compounded annually) through the end of FY 2015 from FY 2005 baseline ²	Increase alternative fuel consumption equal to or above FY 2007 target of 754,773 GGE	Increased alternative fuel consumption to 918,360 GGE (22 percent over the FY 2007 target). Compliant

¹Credits earned for biodiesel use.

²DOE's FY 2005 petroleum baseline is 7,389,881 GGE and FY 2005 alternative fuel baseline is 623,779 GGE.

EPACT 1992 Acquisition Requirements

For the ninth consecutive year, DOE exceeded its EPACT 1992 AFV acquisition requirements in FY 2007 by acquiring 1,020 AFVs, compared with a requirement of 613 AFV acquisitions. After including credits for using biodiesel fuel, DOE in FY 2007 earned AFV acquisition credits amounting to 162 percent of DOE's vehicle acquisitions, 87 percentage points higher than the required 75 percent annual AFV acquisition rate (Appendix A). In short, DOE:

- Acquired 817 EPACT-covered light duty vehicles (LDVs) (reflecting a total of 1,306 LDV acquisitions less 489 exemptions explained below) and acquired 1,020 AFVs – 407 more vehicles than the 75 percent compliance requirement of 613 AFVs.
- Received an additional 303 credits through the use of biodiesel.
- Earned a total of 1,323 credits (including vehicle acquisitions and credits) –162 percent of acquisitions.

Credits

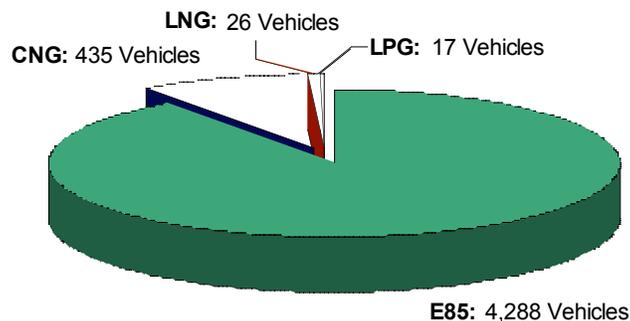
Federal fleets earn one credit for every bi- or flexible-fuel AFV acquired and for every 450 gallons of neat biodiesel (B100) or 2,250 gallons of blended 20 percent biodiesel and 80 percent petroleum diesel (B20) used. Additional credits are earned for AFVs that operate exclusively on alternative fuels. In FY 2007, DOE earned 1,020 credits for AFV acquisitions and 303 credits for biodiesel fuel use, totaling 1,323 credits.

Vehicles

E85 flexible-fuel vehicles (FFVs) capable of running on blended fuel of 85 percent ethanol and 15 percent E85 gasoline, or regular gasoline, were the AFV of choice in FY 2007. Of the 1,020 AFVs acquired in FY 2007, 1,019 of them were FFVs, and one was a bi-fuel compressed natural gas (CNG) vehicle.

E85 FFVs comprise the majority of DOE's AFV fleet (Exhibit 2), with CNG vehicles making up most of the balance. No dedicated CNG vehicles were acquired by DOE in FY 2007 and the number of CNG vehicles in the DOE LDV fleet declined from 567 in FY 2006 to 435 in FY 2007. This is predominately due to limited availability of CNG vehicles from original equipment manufacturers. Of DOE's 4,633 AFVs, 26 run on liquefied natural gas (LNG) and 17 run on liquefied petroleum gas (LPG). Although not eligible for credit under the AFV program in FY 2007, DOE also acquired eight hybrid electric vehicles (HEVs) in FY 2007, bringing DOE's total HEV inventory to 15.

Exhibit 2. DOE's Total AFV Inventory



Exemptions

Of the 1,306 total LDVs acquired by DOE in FY 2007, 489 vehicles (37 percent) were considered exempt from compliance with EPACT 1992. Exemptions are granted based on fleet size, geographic location, or use outside a Metropolitan Statistical Area/Consolidated Metropolitan Statistical Area (MSA/CMSA), and use for law enforcement. In FY 2007, exemptions were granted as follows:

- Fleet Size (4)
- Geographic (213)
- Law Enforcement (81)
- Non-MSA/CMSA Operation/Fleet Location (144)
- Non-MSA/CMSA Operation/Vehicle Use (47)

Alternative Fuel Use Waivers

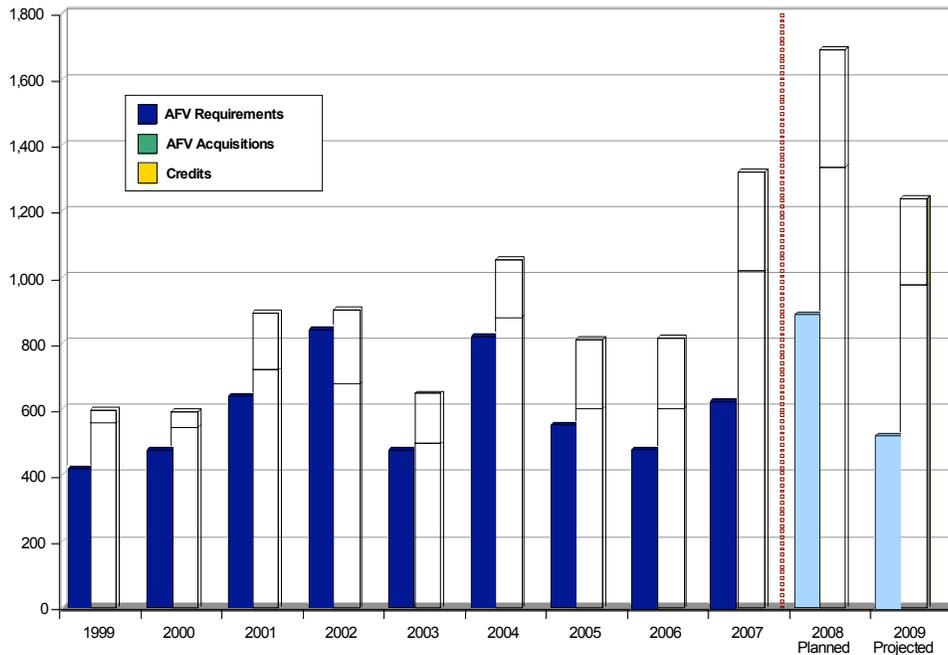
Section 701 of EPACT 2005 requires the use of alternative fuels in Federal dual-fuel AFVs unless the Secretary of Energy grants a waiver due to the unavailability of alternative fuel, or if the fuel is unreasonably more expensive than gasoline. (42 U.S.C. 6374(a)(3)(E)) During FY 2007 DOE developed and disseminated guidelines on this requirement. Agencies, including the DOE fleet, submitted requests for waivers for FY 2008 for AFVs that qualified for a waiver from the requirement.

The Secretary of Energy approved waivers for 1,484 AFVs that are located more than five miles from their garage location and/or where the cost of fuel was unreasonably more expensive than conventional fuel. The remaining 2,763 AFVs are covered by the requirement to use alternative fuel. This fleet, as well as other agency fleets, will be evaluated on compliance with this requirement at the end of FY 2008.

FY 2007/2008 Planned Acquisitions

The attachments to this report offer a detailed look at DOE's FY 2007 acquisitions (Appendix A) and its planned acquisitions for FY 2008. As illustrated in Exhibit 3, DOE has exceeded its annual EPACT 1992 requirements since FY 1999 and plans to continue to exceed these requirements in the next fiscal year (Appendix B).

Exhibit 3: EPACT AFV Acquisitions, Credits, and Requirements (Actual and Projected)



E.O. 13423 Compliance

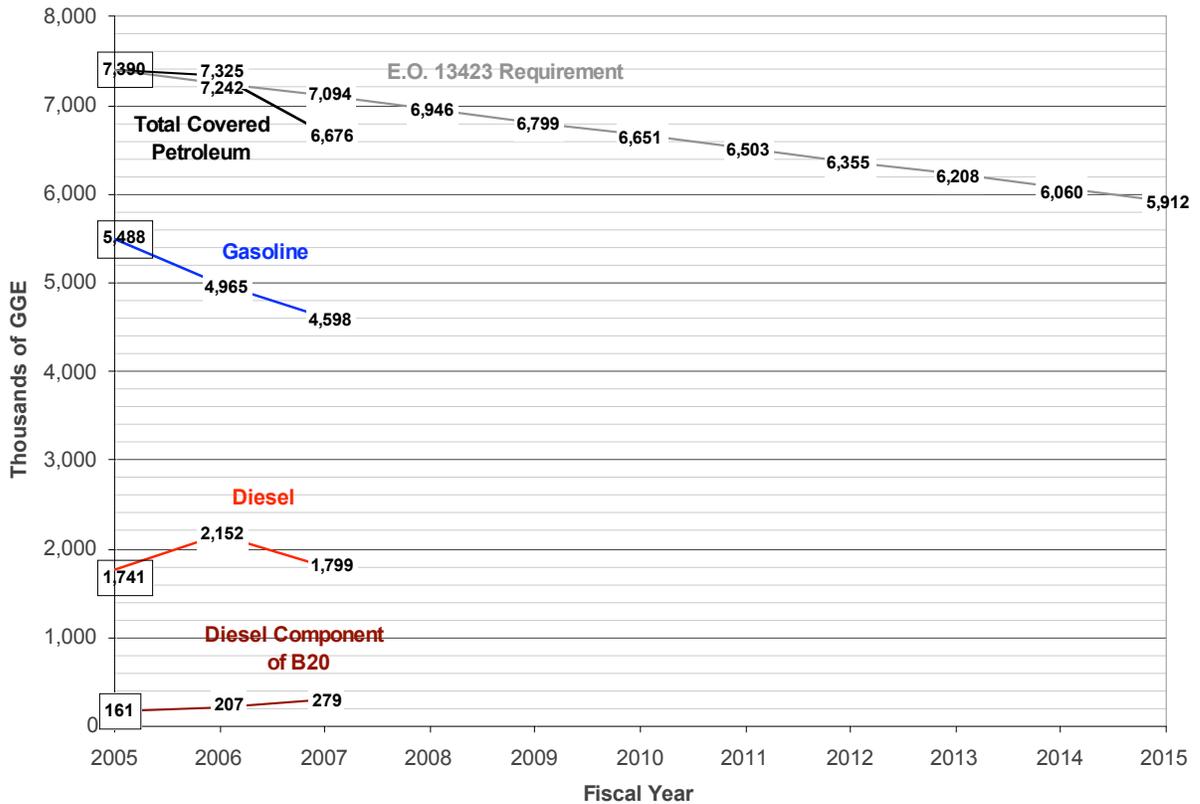
E.O. 13423 requires Federal agencies with 20 or more vehicles operating in the U.S. to:

- Decrease petroleum consumption by 2 percent per year relative to their FY 2005 baseline through FY 2015.
- Increase alternative fuel use by 10 percent (compounded each year) relative to their FY 2005 baseline through FY 2015.
- Use plug-in hybrid vehicles (PHEV) when they are commercially available at a cost reasonably comparable, on the basis of life-cycle cost, to non-plug-in vehicles.

Petroleum Reduction

In FY 2007, DOE used 6,675,721 GGE of petroleum, a 9.7 percent reduction from the FY 2005 petroleum baseline. Exhibit 4 demonstrates that DOE's FY 2007 petroleum reduction far surpasses the E.O. 13423 FY 2007 goal. In fact, DOE's FY 2007 petroleum reduction already meets the goal set for FY 2009.

Exhibit 4: DOE Petroleum Reduction vs. E.O. 13423 Goals

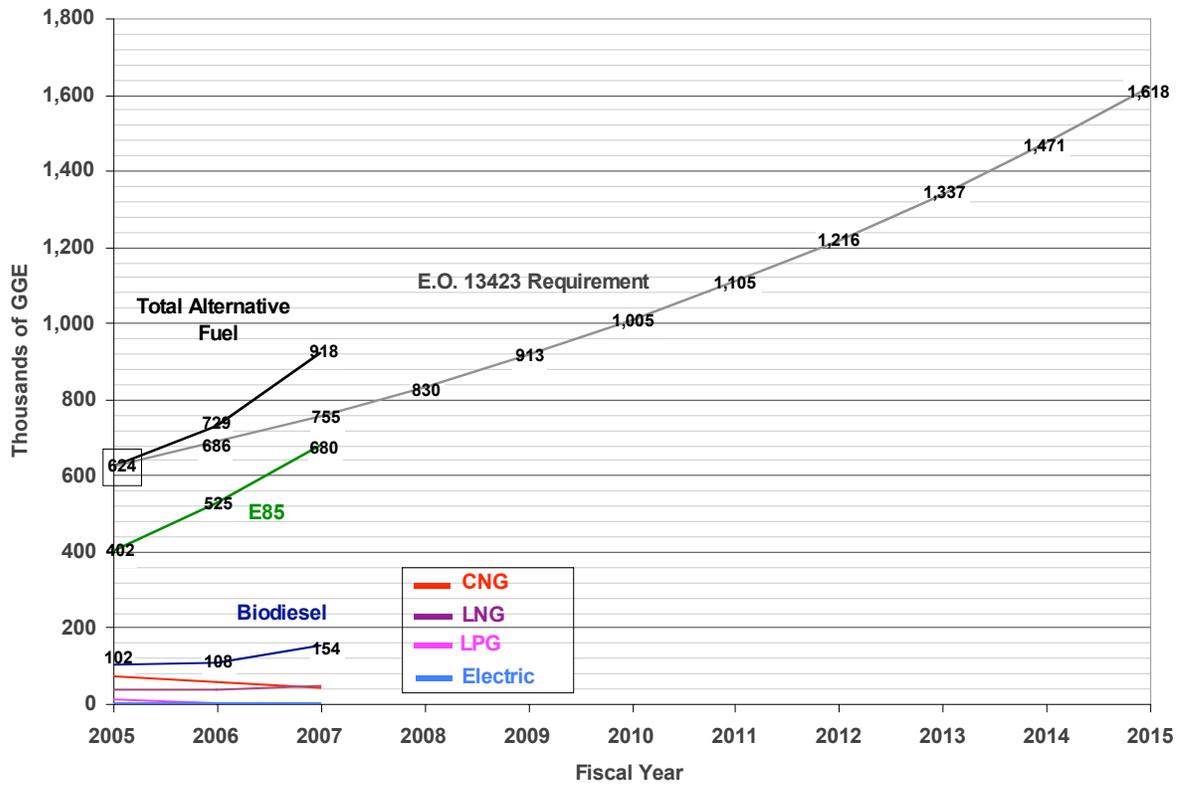


Petroleum Component FY 2007 (GGE)	FY 2005 (Baseline)	FY 2007
Gasoline	5,488,033	4,598,289
Diesel	1,740,660	1,798,898
Diesel Component of B20	161,188	278,534
Total	7,389,881	6,675,721
E.O.13423 Requirement		7,094,285
Compliant		Yes

Alternative Fuel Use

In FY 2007, DOE used 918,360 GGE of alternative fuel, a 47 percent increase from the FY 2005 alternative fuel baseline. As shown in Exhibit 5, DOE exceeded its FY 2007 E.O. 13423 goal of 754,773 GGE by 22 percent. DOE's FY 2007 consumption of alternative fuel already exceeds the DOE E.O. 13423 requirement for FY 2009.

Exhibit 5: DOE Alternative Fuel Increase vs. E.O. 13423 Goals



Alternative Fuel Use Component (GGE)	FY 2005 (Baseline)	FY 2007
CNG	69,548	40,371
LNG	37,147	44,173
LPG	12,468	205
E85	401,895	679,967
Electric	417	0
M85	0	0
B100	102,305	153,644
Hydrogen	0	0
Total	623,780	918,360
E.O.13423 Requirement		754,774
Compliant		Yes

Use of PHEV vehicles

In FY 2007, PHEVs were not commercially available. Therefore, DOE did not acquire any of these vehicles in FY 2007.

Summary and Conclusions

In FY 2007, DOE exceeded its EPACT 1992 FY 2007 AFV acquisition requirements and expects to exceed them in FY 2008 and FY 2009. DOE also exceeded E.O. 13423 petroleum reduction and alternative fuel use requirements. Exhibit 6 summarizes DOE's performance in meeting the requirements of EPACT as well as E.O. 13423.

**Exhibit 6: DOE's Performance in FY 2007
in Meeting the Requirements of EPACT and E.O. 13423**

Requirement	FY 2005	FY 2007 Requirement	FY 2007	Change FY 2005 vs. FY 2007	Compliant
Acquisition of AFVs	112 percent	75 percent	162 percent	N/A	Yes
Covered Petroleum Consumption	7,389,881 GGE	7,094,285 GGE	6,675,721 GGE	- 9.7 percent	Yes
Alternative Fuel Consumption	623,779 GGE	754,774 GGE	918,360 GGE	+ 47 percent	Yes

Appendix A

Actual FY 2007 Light-Duty Vehicle Acquisitions				
		Leased	Purchased	Total
Total number of Light-Duty (8,500 GVWR) Vehicle Acquisitions		1,202	104	1,306
Exemptions	Fleet Size	4	0	4
	Geographic	166	47	213
	Law Enforcement	78	3	81
	Non-MSA Operation (fleet)	143	1	144
	Non-MSA Operation (vehicles)	47	0	47
EPACT Acquisitions		764	53	817
Actual FY 2007 AFV Acquisitions				
Vehicle		Leased	Purchased	Total
Sedan	CNG Dedicated Subcompact	0	0	0
Sedan	CNG Bi-Fuel Compact	0	0	0
Sedan	CNG Dedicated Compact	0	0	0
Sedan	E-85 Flex-Fuel Compact	10	7	17
Sedan	M-85 Flex-Fuel Compact	0	0	0
Sedan	CNG Bi-Fuel Midsize	0	0	0
Sedan	E-85 Flex-Fuel Midsize	131	2	133
Sedan	CNG Dedicated Large	0	0	0
Sedan	E-85 Flex-Fuel Large	8	0	8
Pickup 4x2	CNG Bi-Fuel	0	0	0
Pickup 4x2	CNG Dedicated	0	0	0
Pickup 4x2	E-85 Flex-Fuel	161	28	189
Pickup 4x2	LNG Bi-Fuel	0	0	0
Pickup 4x2	LPG Bi-Fuel	0	0	0
Pickup 4x4	CNG Bi-Fuel	0	0	0
Pickup 4x4	E-85 Flex-Fuel	171	24	195
Pickup 4x4	LNG Bi-Fuel	0	0	0
Pickup 4x4	LPG Bi-Fuel	0	0	0
SUV 4x2	E-85 Flex-Fuel	25	0	25
SUV 4x4	CNG Bi-Fuel	0	0	0
SUV 4x4	E-85 Flex-Fuel	186	10	196
SUV 4x4	LNG Bi-Fuel	0	0	0
Minivan 4x2 (Passenger)	E-85 Flex-Fuel	190	0	190
Minivan 4x4 (Passenger)	E-85 Flex-Fuel	6	0	6

Minivan 4x2 (Cargo)	E-85 Flex-Fuel	14	0	14
Minivan 4x2 (Cargo)	LPG Dedicated	0	0	0
Van 4x2 (Passenger)	CNG Bi-Fuel	0	0	0
Van 4x2 (Passenger)	E-85 Flex-Fuel	30	1	31
Van 4x4 (Passenger)	E-85 Flex-Fuel	1	0	1
Van 4x2 (Cargo)	CNG Bi-Fuel	0	0	0
Van 4x2 (Cargo)	E-85 Flex-Fuel	4	6	10
Other 4x2	CNG Dedicated	0	0	0
Ambulance	CNG Dedicated	0	0	0
Bus	LNG Bi-Fuel	0	0	0
Pickup MD	CNG Bi-Fuel	0	0	0
Pickup MD	E-85 Flex-Fuel	0	0	0
SUV MD	E-85 Flex-Fuel	4	0	4
Van MD (Passenger)	CNG Bi-Fuel	0	0	0
Van MD (Passenger)	CNG Dedicated	0	0	0
Van MD (Cargo)	CNG Bi-Fuel	0	0	0
Van MD (Cargo)	CNG Dedicated	0	0	0
HD 16,001 + GVWR	CNG Bi-Fuel	0	1	1
HD 16,001 + GVWR	CNG Dedicated	0	0	0
HD 16,001 + GVWR	LPG Bi-Fuel	0	0	0
Total Number of AFV Acquisitions		941	79	1,020
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				303
Total AFV Acquisitions with Credits		941	79	1,323
AFV Percentage of Light Duty Vehicle Acquisition				162%

Appendix B

Planned Department of Energy FY 2008 Vehicle Acquisitions				
Planned FY 2008 Light-Duty Vehicle Acquisitions				
		Leased	Purchased	Total
Total number of Light-Duty (8,500 GVWR) Vehicle Acquisitions		1,417	88	1,505
Exemptions	Fleet Size	8	0	8
	Geographic	80	19	99
	Law Enforcement	61	1	62
	Non-MSA Operation (fleet)	138	0	138
	Non-MSA Operation (vehicles)	41	0	41
EPACT Covered Acquisitions		1,089	68	1,157
Planned FY 2008 AFV Acquisitions				
Vehicle		Leased	Purchased	Total
Sedan	CNG Dedicated Subcompact	2	0	2
Sedan	E-85 Flex-Fuel Compact	148	5	153
Sedan	E-85 Flex-Fuel Midsize	73	1	74
Sedan	E-85 Flex-Fuel Large	7	0	7
Pickup 4x2	CNG Bi-Fuel	12	0	12
Pickup 4x2	E-85 Flex-Fuel	323	27	350
Pickup 4x4	CNG Bi-Fuel	5	0	5
Pickup 4x4	E-85 Flex-Fuel	190	7	197
SUV 4x2	E-85 Flex-Fuel	48	0	48
SUV 4x4	E-85 Flex-Fuel	103	3	106
Minivan 4x2 (Passenger)	E-85 Flex-Fuel	177	6	183
Minivan 4x4 (Passenger)	E-85 Flex-Fuel	9	0	9
Minivan 4x2 (Cargo)	E-85 Flex-Fuel	31	12	43
Van 4x2 (Passenger)	CNG Bi-Fuel	1	0	1
Van 4x2 (Passenger)	E-85 Flex-Fuel	55	3	58
Van 4x4 (Passenger)	E-85 Flex-Fuel	1	0	1
Van 4x2 (Cargo)	CNG Bi-Fuel	1	0	1
Van 4x2 (Cargo)	E-85 Flex-Fuel	11	2	13
Bus	CNG Bi-Fuel	1	0	1
Pickup MD	CNG Bi-Fuel	1	0	1

Pickup MD	E-85 Flex-Fuel	26	3	29
SUV MD	E-85 Flex-Fuel	21	0	21
Van MD (Passenger)	CNG Bi-Fuel	1	0	1
Van MD (Passenger)	CNG Dedicated	1	0	1
Van MD (Passenger)	E-85 Flex-Fuel	6	1	7
Van MD (Cargo)	CNG Bi-Fuel	2	0	2
Van MD (Cargo)	CNG Dedicated	1	0	1
MD 8,501-16,000 GVWR	CNG Bi-Fuel	2	0	2
Emergency/Emergency Response MD 8,501-16,000 GVWR	CNG Bi-Fuel	3	0	3
HD 16,001 + GVWR	CNG Bi-Fuel	3	0	3
Total Number of AFV Acquisitions		1,265	70	1,335
Zero Emission Vehicle Credits		0	0	0
Dedicated Light-Duty AFV Credits		2	0	2
Dedicated Medium-Duty AFV Credits		4	0	4
Dedicated Heavy-Duty AFV Credits		0	0	0
Biodiesel Fuel Usage Credits - Planned				351
Total AFV Acquisitions with Credits		1,271	70	1,692
AFV Percentage of Light Duty Vehicle Acquisition				146%

Appendix C

List of Acronyms	
Acronym	Phrase
AFV	Alternative Fueled Vehicle
B100	Biodiesel (100 percent, neat)
B20	Biodiesel (20 percent biodiesel, 80 percent petroleum diesel)
CNG	Compressed Natural Gas
DOE	Department of Energy
E85	Ethanol (85 percent ethanol, 15 percent petroleum)
E.O.	Executive Order
EPACT	Energy Policy Act
FFV	Flexible Fuel Vehicle
FY	Fiscal Year
GGE	Gasoline Gallon Equivalent
GVWR	Gross Vehicle Weight Rating
HD	Heavy 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
OMB	Office of Management and Budget