# U.S. Department of Energy Fleet Alternative Fuel Vehicle Acquisition Report

Compliance with the Energy Policy Acts of 1992 and 2005 and E.O. 13423 in Fiscal Year 2008

This report summarizes the U.S. Department of Energy's (DOE) fiscal year (FY) 2008 fleet performance in meeting the requirements of:

- Section 303 of the Energy Policy Act of 1992 (EPAct 1992), as amended (42 U.S.C. 13212),
- **Executive Order (E.O.) 13423**, "Strengthening Federal Environmental, Energy, and Transportation Management" (72 FR 3919, signed January 24, 2007), and
- Section 701 of the Energy Policy Act of 2005 (EPAct 2005) (42 U.S.C. 6374(a)(3)(E)), which amended the Energy Policy and Conservation Act to require that agencies use alternative fuel in all dual-fueled alternative fueled vehicles (AFVs) except in vehicles for which the agency received a waiver from DOE.

Exhibit 1. DOE's Performance in Meeting EPAct 1992, EPAct 2005, and E.O. 13423 Requirements. FY 2008

Authority/	Performance Measure	Goal/Requirement	DOE Performance in
Mandate			FY 2008
EPAct 1992	Alternative fuel vehicle (AFV) acquisitions	Acquire a number of AFVs that are equal to or greater than 75 percent of the vehicles acquired for the Federal fleet <sup>1</sup>	Acquired a total of 960 AFVs and earned 204 additional credits <sup>2</sup> for a total of 1,164 credits or 187 percent of covered acquisitions. <i>Compliant</i>
EPAct 2005, Section 701	Alternative fuel use in AFVs	Operate all dual-fueled AFVs on alternative fuel unless the AFV is granted a waiver for fuel availability or cost	Used 364 GGE of alternative fuel per non-waivered dual-fueled AFV. <i>Compliant</i>
E.O. 13423	Reduce the fleet's total consumption of petroleum by two percent annually through the end of FY 2015 from FY 2005 baseline <sup>3</sup>	Reduce fleet consumption of petroleum to below FY 2008 target of 6,946,488 gasoline gallon equivalents (GGE)	Reduced consumption of fleet petroleum to 7,105,378 GGE (2.3 percent above the FY 2008 target). <i>Non-compliant</i>
	Increase annual alternative fuel consumption by 10 percent (compounded annually) through the end of FY 2015 from FY 2005 baseline <sup>4</sup>	Increase alternative fuel consumption equal to or above FY 2008 target of 830,251 GGE	Increased alternative fuel consumption to 1,154,600 GGE (39 percent over the FY 2008 target).  Compliant

For purposes of analysis under EPAct 1992, the term "Federal fleet" means 20 or more light duty motor vehicles, located in U.S. metropolitan areas. EPAct 1992 exempts certain vehicles from this requirement, including nonroad, law enforcement, and emergency vehicles (42 U.S.C. 13212(b)(3)).

\_

<sup>&</sup>lt;sup>2</sup> Credits earned for biodiesel use.

<sup>3</sup> DOE's FY 2005 covered petroleum baseline is 7,389,881 GGE and FY 2005 alternative fuel baseline is 623,780 GGE. E.O. 13514 extended the petroleum reductions required under E.O. 13423 to FY 2020.

#### I. EPAct 1992 Acquisition Requirements

For the tenth consecutive year, DOE exceeded its EPAct 1992 AFV acquisition requirements by acquiring 960 AFVs in FY 2008, compared with a requirement of 467 AFV acquisitions. After including credits for using biodiesel fuel, DOE in FY 2008 earned AFV acquisition credits amounting to 187 percent of DOE's covered vehicle acquisitions, 112 percentage points higher than the required 75 percent annual AFV acquisition rate (Appendix A). In short, DOE:

• Acquired 1,116 light-duty vehicles (LDVs). Of these 1,116 LDVs, 622 were covered Federal fleet vehicles and 494 were excluded vehicles under EPAct 1992.

#### Credits

In FY 2008, DOE earned 1,164 credits. Federal fleets earn one credit for every AFV acquired and for every 450 gallons of pure biodiesel (B100) or 2,250 gallons of blended 20 percent biodiesel and 80 percent petroleum diesel (B20) used in medium- and heavy-duty vehicles (42 U.S.C. 13220(a)(1)). Additional credits are earned for AFVs that operate exclusively on alternative fuels. For this reporting period, DOE earned 960 credits for AFV acquisitions and 204 credits for biodiesel fuel use:

- Of the 622 covered light-duty Federal fleet vehicles acquired in FY 2008, 540 were AFVs.
- Of the 494 excluded light-duty Federal fleet vehicles acquired in FY 2008, 396 were AFVs.
- DOE acquired 24 medium-duty AFVs in FY 2008.
- DOE received an additional 204 credits through the use of biodiesel.
- DOE earned a total of 1,164 credits (including vehicle acquisitions and biodiesel credits), which amounts to 187 percent of covered acquisitions.

#### Vehicles

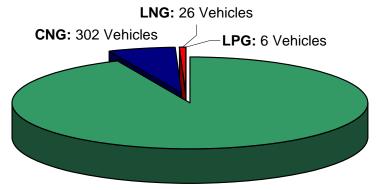
E85 flexible-fuel vehicles (FFVs) capable of running on blended fuel of 85 percent ethanol and 15 percent gasoline (E85), or regular gasoline, were the AFV of choice in FY 2008. All of the 960 AFVs acquired in FY 2008 were E85 FFVs.

E85 FFVs comprise the majority of DOE's AFV fleet (Exhibit 2), with compressed natural gas (CNG) vehicles making up most of the balance. No CNG vehicles were acquired by DOE in FY 2008 and the number of CNG vehicles in the DOE fleet has declined from 567 in FY 2006 and 435 in FY 2007 to 302 in FY 2008. This is predominately due to limited availability of CNG vehicles from original equipment manufacturers. Of DOE's 4,939 AFVs, only 26 run on liquefied natural gas (LNG) and 6 run on liquefied petroleum gas (LPG). Although hybrid electric vehicles (HEVs) were not defined as AFVs in FY 2008, DOE also acquired 10 HEVs in FY 2008, bringing DOE's total HEV inventory to 26.

-

<sup>&</sup>lt;sup>4</sup> Federal Energy Management Program Comprehensive Federal Fleet Management Handbook on Executive Order 13514: Federal Leadership in Environmental, Energy, and Economic Performance, pp. 48-49, available at http://www1.eere.energy.gov/femp/pdfs/eo13514\_fleethandbook.pdf.

#### Exhibit 2. DOE's Total AFV Inventory (FY 2008)



E85: 4,605 Vehicles

#### **Excluded LDVs**

Of the 1,116 total LDVs acquired by DOE in FY 2008, 494 vehicles (44 percent) were excluded from compliance with the EPAct 1992 acquisition requirement. Exclusions are based on fleet size, geographic location, or use outside a Metropolitan Statistical Area/Consolidated Metropolitan Statistical Area (MSA/CMSA), and use for law enforcement (42 U.S.C. 13212(b)(3)). In FY 2008, exclusions were as follows:

- Fleet Size (23)
- Geographic (142)<sup>5</sup>
- Law Enforcement (79)
- Non-MSA/CMSA Operation/Fleet Location (215)
- Non-MSA/CMSA Operation/Vehicle Use (35)

#### **Covered AFV Acquisitions**

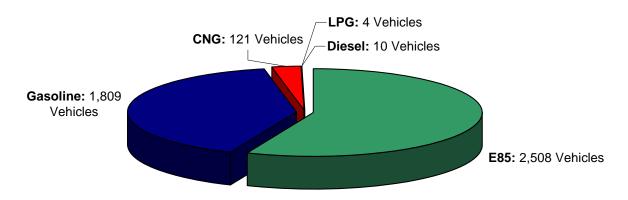
As discussed above, the DOE fleet's total AFV acquisitions and additional AFV credits represented 187 percent of its covered vehicle acquisitions in FY 2008. This is a result of a large number of "non-covered" AFV acquisitions, including some medium-duty AFVs. Covered (i.e., non-excluded) AFVs represented 540 (or 87 percent) of the 622 covered LDVs acquired in FY 2008. Therefore, DOE exceeded its EPAct 1992 AFV acquisition requirements even without the additional AFV credits for non-covered vehicles and biodiesel use. All 540 covered light-duty AFVs acquired in FY 2008 were E85 FFVs.

Of DOE's 4,452 covered LDVs (Exhibit 3), E85 FFVs (56.3 percent) and gasoline vehicles (40.6 percent) comprise the majority, with CNG vehicles (2.7 percent) making up most of the balance. DOE slightly increased the composition of AFVs in its covered LDV fleet in FY 2008 to 59.1 percent, compared to 58.6 percent in FY 2007.

- 3 -

<sup>&</sup>lt;sup>5</sup>Fleets that are not located within and do not primarily operate within an MSA/CMSA.

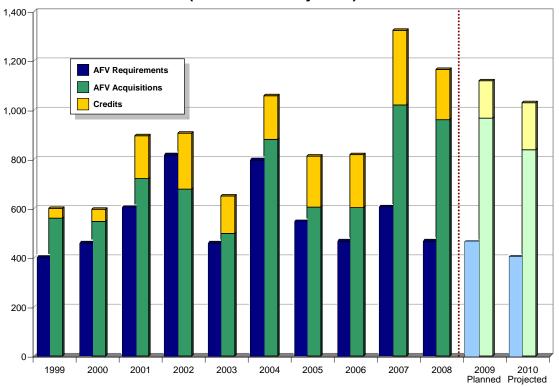
Exhibit 3. DOE's Covered LDV Inventory (FY 2008)



#### FY 2008 Actual, FY 2009 Planned, and FY 2010 Projected Acquisitions

The attachments to this report offer a detailed look at DOE's FY 2008 acquisitions (Appendix A), its planned acquisitions for FY 2009, and projected acquisitions for FY 2010. As illustrated in Exhibit 4, 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 4: EPAct 1992 AFV Acquisitions, Credits, and Requirements (Actual and Projected)



## II. Section 701 of EPAct 2005 - Alternative Fuel Use in AFVs Requirements

Section 701 of EPAct 2005 requires the use of alternative fuels in Federal dual-fueled AFVs unless the Secretary of Energy grants a waiver due to the unavailability of alternative fuel (alternative fuel is not available within five miles or 15 minutes) or if the fuel is unreasonably more expensive (costs more than on a per-gallon basis) than gasoline (42 U.S.C. 6374(a)(3)(E)). Federal agencies, including the DOE fleet, submitted requests for FY 2008 waivers from the Section 701 requirement in June 2007.

#### **Waivers**

In FY 2008, the DOE fleet included 4,868 dual-fueled AFVs (of the 4,939 total AFVs), of which 497 were law enforcement vehicles (which were not subject to the section 701 requirement). Of these 4,371 dual-fueled AFVs, the DOE fleet was granted a waiver for 1,484 AFVs for which the alternative fuel otherwise required to be used in the vehicle was not reasonably available (i.e., the vehicles were garaged more than five miles from an alternative fuel station or fueling center) or where the cost of fuel was unreasonably more expensive than conventional fuel. The remaining 2,887 dual-fueled AFVs were covered by the requirement to operate on alternative fuel in FY 2008.

For FY 2009, the DOE fleet was granted a waiver from the requirement in Section 701 of EPAct 2005 for 1,162 AFVs due to the unavailability of alternative fuel. This represents a 22 percent decrease in waivered AFVs from FY 2008. FY 2009 waivered AFVs represented roughly 27 percent of the 4,371 dual-fueled AFVs subject to the requirement in Section 701 of EPAct 2005.

#### Alternative Fuel Use in Non-Waivered AFVs

Under Section 701 of EPAct 2005, all non-waivered dual-fueled AFVs are required to operate on alternative fuels. Compliance with this requirement is evaluated using the average alternative fuel use per non-waivered dual-fueled AFV covered by the requirement in Section 701 of EPAct 2005. Total fuel used in dual-fueled AFVs is calculated using a Federal fleet average of 350 GGE fuel use per vehicle.

In FY 2008, the DOE fleet exceeded the requirement in Section 701 of EPAct 2005 by using an average of 364 GGE of alternative fuel use per non-waivered dual-fueled AFV, calculated as follows:

Total FY 2008 Alternative Fuel Use FY 2008 Biodiesel Use	1,154,600 GGE 103,566 GGE
Total FY 2008 Alternative Fuel Use Excluding Biodiesel	1,051,034 GGE
Number of non-waived dual-fueled AFVs in FY 2008 covered by the requirement in Section 701 of EPAct 2005	2,887 vehicles
Alternative fuel per non-waivered dual-fueled AFV	364 GGE

#### III. E.O. 13423 Compliance

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

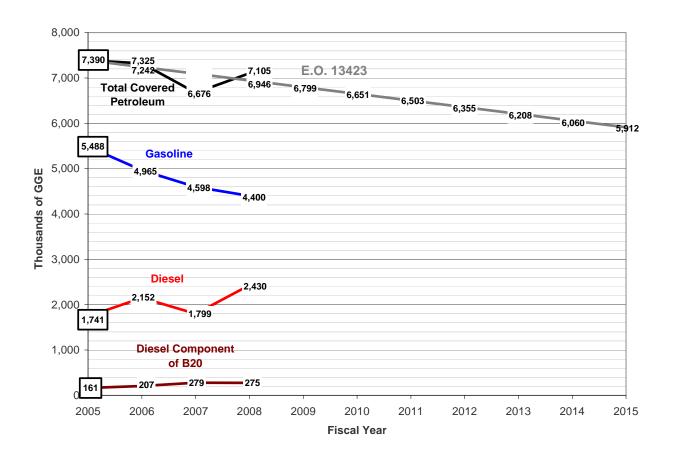
- Decrease petroleum consumption by two percent per year relative to their FY 2005 baselines through FY 2015.
- Increase alternative fuel use by 10 percent (compounded each year) relative to their FY 2005 baselines through FY 2015.
- Use plug-in hybrid (PHEV) vehicles when they are commercially available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

#### Fleet Petroleum Reduction

In FY 2008, DOE used 7,105,378 GGE of petroleum, a 3.8 percent reduction from the FY 2005 fleet petroleum baseline. As shown in Exhibit 5, DOE's FY 2008 fleet petroleum reduction failed to meet the E.O. 13423 FY 2008 goal of 6,946,488 GGE (6 percent reduction for the FY 2005 baseline).

One reason that DOE did not meet the fleet petroleum reduction goal for FY 2008 was a large increase in covered diesel fuel use by the Washington Closure Hanford fleet—covered diesel use increased from 9,863 GGE in FY 2007 to 322,158 GGE in FY 2008. The increase was due to a change in mission from FY 2005, as the facility began using trucks to transport millions of tons of contaminated soils to a disposal facility.

Exhibit 5: DOE Fleet Petroleum Reduction vs. E.O. 13423 Goals

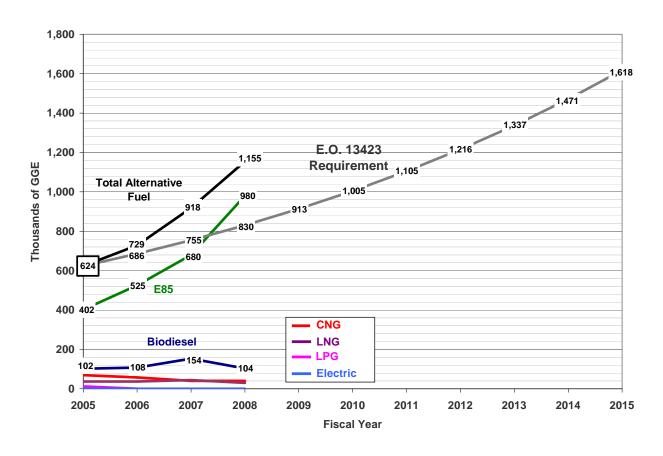


Fleet Petroleum Component	FY 2005 Baseline (GGE)	FY 2008 (GGE)
Gasoline	5,488,033	4,400,052
Diesel	1,740,660	2,430,002
Diesel Component of B20	161,188	275,324
Total	7,389,881	7,105,378
E.O.13423 Requirement		6,946,488
Compliant		No

#### **Alternative Fuel Use**

In FY 2008, DOE used 1,154,600 GGE of alternative fuel, an 85 percent increase from the FY 2005 alternative fuel baseline. As shown in Exhibit 6, DOE exceeded its FY 2008 E.O. 13423 goal of 830,251 GGE by 39 percent. DOE's FY 2008 consumption of alternative fuel already exceeds the DOE E.O. 13423 requirement for FY 2011.

Exhibit 6: DOE Alternative Fuel Increase vs. E.O. 13423 Goals



Alternative Fuel Use Component	FY 2005 Baseline (GGE)	FY 2008 (GGE)
CNG	69,548	40,485
LNG	37,147	30,356
LPG	12,468	0
E85	401,895	980,193
Electric	417	0
M85	0	0
B100	102,305	103,566
Hydrogen	0	0
Total	623,780	1,154,600
E.O.13423 Requirement		830,251
Compliant		Yes

#### **Use of PHEV vehicles**

In FY 2008, PHEVs (plug-in hybrid electric vehicles) were not commercially available. Therefore, DOE was not able to acquire any of these vehicles in FY 2008.

#### IV. Summary and Conclusions

In FY 2008, DOE exceeded its EPAct 1992 FY 2008 AFV acquisition requirements and expects to exceed them in FY 2009 and FY 2010. DOE also exceeded Section 701 of EPAct 2005 alternative fuel use requirements in dual-fueled AFVs and E.O. 13423 alternative fuel use increase requirements. Due to changes in mission, DOE did not meet its goal for FY 2008 E.O. 13423 petroleum reduction. Exhibit 7 summarizes DOE's performance in meeting the EPAct requirements as well as E.O. 13423.

Exhibit 7: DOE's Performance in FY 2008 in Meeting the Requirements of EPAct and E.O. 13423

Requirement	FY 2008 Requirement	FY 2008	Change FY 2005 vs. FY 2008	Compliant
Acquisition of AFVs	75 percent	187 percent	N/A	Yes
Use of Alternative Fuel in Non-waivered Dual-Fueled AFVs	100 percent of the time (assumes 350 GGE of fuel used annually per vehicle.)	364 GGE per non-waivered dual-fueled AFVs	N/A	Yes
Fleet Petroleum Consumption	6,946,488 GGE	7,105,378 GGE	- 3.8 percent	No
Alternative Fuel Consumption	830,251 GGE	1,154,600 GGE	+85 percent	Yes

## Appendix A

Actu	al FY 2008 Light-Duty Vehicle	<del></del>		
		Leased	Purchased	Total
Total number of Light-Duty	(8,500 GVWR) - Vehicle Acquisitions	1,051	65	1,116
	Fleet Size	23	0	23
	Geographic	137	5	142
Exemptions	Law Enforcement	79	0	79
	Non-MSA Operation (fleet)	214	1	215
	Non-MSA Operation (vehicles)	35	0	35
EPAct 1992 Covered Light	t-Duty Federal Fleet Vehicle	563	59	622
	Actual FY 2008 AFV Acquisi	tions		
Vehicle		Leased	Purchased	Total
Sedan	CNG Bi-Fuel Subcompact	0	0	0
Sedan	CNG Bi-Fuel Compact	0	0	0
Sedan	E-85 Flex-Fuel Compact	10	0	10
Sedan	E-85 Flex-Fuel Midsize	116	3	119
Sedan	CNG Dedicated Large	0	0	0
Sedan	E-85 Flex-Fuel Large	13	0	13
Pickup 4x2	CNG Bi-Fuel	0	0	0
Pickup 4x2	CNG Dedicated	0	0	0
Pickup 4x2	E-85 Flex-Fuel	197	32	229
Pickup 4x2	LNG Bi-Fuel	0	0	0
Pickup 4x2	LPG Bi-Fuel	0	0	О
Pickup 4x4	CNG Bi-Fuel	0	0	0
Pickup 4x4	CNG Dedicated	0	0	0
Pickup 4x4	E-85 Flex-Fuel	187	3	190
Pickup 4x4	LNG Bi-Fuel	0	0	0
Pickup 4x4	LPG Bi-Fuel	0	0	0
SUV 4x2	E-85 Flex-Fuel	45	0	45
SUV 4x4	CNG Bi-Fuel	0	0	0
SUV 4x4	E-85 Flex-Fuel	99	4	103
SUV 4x4	LNG Bi-Fuel	0	0	0
Minivan 4x2 (Passenger)	E-85 Flex-Fuel	168	6	174
Minivan 4x4 (Passenger)	CNG Bi-Fuel	0	0	0
Minivan 4x4 (Passenger)	E-85 Flex-Fuel	0	0	0
Minivan 4x2 (Cargo)	E-85 Flex-Fuel	18	1	19
Minivan 4x2 (Cargo)	LPG Dedicated	0	0	0
Van 4x2 (Passenger)	CNG Bi-Fuel	0	0	0
Van 4x2 (Passenger)	E-85 Flex-Fuel	17	0	17
Van 4x4 (Passenger)	E-85 Flex-Fuel	1	0	1
Van 4x2 (Cargo)	CNG Bi-Fuel	0	0	0

AFV Percentage of Covered Light-Duty Vehicle Acquisition			187 %	
Total AFV Acquisitions with Credits 898 62			1,164	
Biodiesel Fuel Usage Credits - Actual				204
Dedicated Heavy-Duty AFV Credits		0	0	0
Dedicated Medium-Duty AFV Credits		0	0	0
Dedicated Light-Duty AFV Credits		0	0	0
Zero Emission Vehicle Credits		0	0	0
Total Number of AFV Acquisitions		898	62	960
MD 8,501-16,000 GVWR	LPG Bi-Fuel	0	0	0
Van MD (Cargo)	CNG Dedicated	0	0	0
Van MD (Cargo)	CNG Bi-Fuel	0	0	0
Van MD (Passenger)	E-85 Flex-Fuel	3	1	4
Van MD (Passenger)	CNG Dedicated	0	0	0
Van MD (Passenger)	CNG Bi-Fuel	0	0	0
SUV MD	E-85 Flex-Fuel	10	3	13
Pickup MD	E-85 Flex-Fuel	7	0	7
Pickup MD	CNG Bi-Fuel	0	0	0
Bus	LNG Bi-Fuel	0	0	0
Bus	CNG Dedicated	0	0	0
Van 4x4 (Cargo)	E-85 Flex-Fuel	3	0	3
Van 4x2 (Cargo)	E-85 Flex-Fuel	4	9	13

## Appendix B

Plann	ed FY 2009 Light-Duty Vehicle			Tatal
T. 1 (111.5)	(0.700.0) (0.400)	Leased	Purchased	Total
Total number of Light-Duty	(8,500 GVWR) - Vehicle Acquisitions	1,043	97	1,140
	Fleet Size	15	0	1:
	Geographic	106	18	124
Exemptions	Law Enforcement	62	0	62
	Non-MSA Operation (fleet)	312	0	312
	Non-MSA Operation (vehicles)	14	0	14
EPAct 1992 Covered Light Acquisitions	t-Duty Federal Fleet Vehicle	534	79	613
	Planned FY 2009 AFV Acquis	sitions		
	Vehicle	Leased	Purchased	Total
Sedan	E-85 Flex-Fuel Compact	55	10	65
Sedan	E-85 Flex-Fuel Midsize	69	1	70
Sedan	E-85 Flex-Fuel Large	13	0	13
Pickup 4x2	CNG Bi-Fuel	6	0	6
Pickup 4x2	CNG Dedicated	1	0	•
Pickup 4x2	E-85 Flex-Fuel	198	29	227
Pickup 4x4	CNG Bi-Fuel	1	0	•
Pickup 4x4	E-85 Flex-Fuel	106	9	115
SUV 4x2	E-85 Flex-Fuel	25	0	25
SUV 4x4	E-85 Flex-Fuel	118	3	121
Minivan 4x2 (Passenger)	E-85 Flex-Fuel	145	9	154
Minivan 4x4 (Passenger)	E-85 Flex-Fuel	5	0	Ę
Minivan 4x2 (Cargo)	E-85 Flex-Fuel	11	6	17
Van 4x2 (Passenger)	CNG Bi-Fuel	1	0	,
Van 4x2 (Passenger)	E-85 Flex-Fuel	77	1	78
Van 4x2 (Cargo)	E-85 Flex-Fuel	9	12	2′
Pickup MD	E-85 Flex-Fuel	25	2	27
SUV MD	E-85 Flex-Fuel	6	3	(
Van MD (Passenger)	CNG Dedicated	5	0	Ę
Van MD (Passenger)	E-85 Flex-Fuel	3	1	
Van MD (Cargo)	CNG Bi-Fuel	1	0	
Total Number of AFV Acc	quisitions	880	86	966
Zero Emission Vehicle Credits		0	0	(
Dedicated Light-Duty AFV Credits		1	0	,
Dedicated Medium-Duty AFV Credits		10	0	10
Dedicated Heavy-Duty AFV Credits		0	0	(
Biodiesel Fuel Usage Cred	lits - Planned			14
Total AFV Acquisitions w	vith Credits	891	86	1,118
	red Light-Duty Vehicle Acquisition			182 %

## Appendix C

Projec	ted FY 2010 Light-Duty Vehicle	e Acquisiti	ons	
		Leased	Purchased	Total
Total number of Light-Duty	(8,500 GVWR) - Vehicle Acquisitions	778	106	88
	Fleet Size	11	0	1
	Geographic	71	18	89
Exemptions	Law Enforcement	49	3	5
	Non-MSA Operation (fleet)	177	0	17
	Non-MSA Operation (vehicles)	24	0	2
EPAct 1992 Covered Ligh Acquisitions	nt-Duty Federal Fleet Vehicle	446	85	53 <sup>-</sup>
	Projected FY 2010 AFV Acqui	sitions		
Vehicle		Leased	Purchased	Total
Sedan	E-85 Flex-Fuel Compact	52	8	60
Sedan	E-85 Flex-Fuel Midsize	70	1	7
Sedan	E-85 Flex-Fuel Large	17	0	1
Pickup 4x2	CNG Bi-Fuel	1	0	
Pickup 4x2	E-85 Flex-Fuel	145	36	18
Pickup 4x4	E-85 Flex-Fuel	99	7	10
SUV 4x2	E-85 Flex-Fuel	20	2	2:
SUV 4x4	E-85 Flex-Fuel	143	6	149
Minivan 4x2 (Passenger)	CNG Dedicated	5	0	ţ
Minivan 4x2 (Passenger)	E-85 Flex-Fuel	88	14	102
Minivan 4x4 (Passenger)	E-85 Flex-Fuel	7	0	-
Minivan 4x2 (Cargo)	E-85 Flex-Fuel	9	3	1:
Van 4x2 (Passenger)	E-85 Flex-Fuel	13	3	1
Van 4x4 (Passenger)	E-85 Flex-Fuel	2	1	;
Van 4x2 (Cargo)	CNG Bi-Fuel	1	0	
Van 4x2 (Cargo)	E-85 Flex-Fuel	5	10	1:
Pickup MD	E-85 Flex-Fuel	39	4	4:
SUV MD	E-85 Flex-Fuel	17	0	1
Van MD (Passenger)	CNG Bi-Fuel	2	0	
Van MD (Passenger)	E-85 Flex-Fuel	6	1	-
Van MD (Cargo)	CNG Bi-Fuel	1	0	
Total Number of AFV Acc	quisitions	742	96	83
Zero Emission Vehicle Credits		0	0	(
Dedicated Light-Duty AFV Credits		5	0	;
Dedicated Medium-Duty AFV Credits		0	0	(
Dedicated Heavy-Duty AFV Credits		0	0	(
Biodiesel Fuel Usage Cred				180
Total AFV Acquisitions with Credits 747 96			1,02	
<u> </u>	ed Light-Duty Vehicle Acquisition			194 %

## Appendix D

List of Acronyms		
Acronym	Phrase	
AFV	Alternative Fuel 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 Equivalents	
GVWR	Gross Vehicle Weight Rating	
HD	Heavy Duty	
LDV	Light-Duty Vehicle	
LNG	Liquefied Natural Gas	
LPG	Liquefied Petroleum Gas (Propane)	
MD	Medium Duty	
MSA/CMSA	Metropolitan Statistical Area/Consolidated Metropolitan Statistical Area	
PHEV	Plug-in Hybrid Electric Vehicle	