

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

Compliance with EAct and E.O. 13149 in Fiscal Year 2006

This report summarizes the U.S. Department of Veterans Affairs (VA) fiscal year (FY) 2006 fleet performance in meeting the requirements of the Energy Policy Act (EAct) of 1992 (Public Law 102-486), as amended by the Energy Conservation Reauthorization Act of 1998 (Public Law 105-388), and in meeting the goals of Executive Order (E.O.) 13149, "Greening the Government through Federal Fleet and Transportation Efficiency" (65 CFR 24607), which was signed in April 2000 (Exhibit 1). Signed into law in August 2005, section 705 of the EAct of 2005 (Public Law 109-58), amended the due date of this report to February 15<sup>th</sup>.

**Exhibit 1. VA's Performance in Meeting EAct and E.O. 13149 Requirements, FY 2006**

Authority / Mandate	Performance Measure	Goal / Requirement	VA Performance in FY 2006
<b>EAct</b>	Alternative fuel vehicle (AFV) acquisitions	75 Percent of the 1,091 covered light- duty vehicles (LDV) acquired in FY 2006 must be AFV's	Acquired 1,004 AFVs, earned 31 additional credits, or 95 percent of covered acquisitions.
<b>E.O. 13149</b>	Alternative fuel use in AFVs	By FY 2005, increase alternative fuel use in AFVs to a majority of the total fuel used in those vehicles.	Achieved 3.8 percent alternative fuel use in AFVs.
	Fuel economy of light-duty acquisitions	By FY 2005, increase fuel economy by 3 miles per gallon (mpg) compared to 1999, baseline of 18 mpg. By FY 2005, reduce covered	Maintained mpg equal to that of FY 1999 baseline.
	Petroleum consumption	consumption by 20 percent compared to FY 1999 baseline of 6,277,134 gasoline gallon equivalent (GGE)	Consumed 6,952,242 GGE, an increase of 10.8 percent from the FY 1999 baseline.*

\* The number of vehicles in VA's fleet increased by 52.8% from 1999 to 2006, while the reported GGE consumed per vehicle decreased by 28.6% from 1999 to 2006.

## EPAct Compliance

VA exceeded its EPAct requirements in FY 2006. As a result of its Alternate Fuel Vehicle (AFV) acquisitions and biodiesel fuel use, VA in FY 2006 earned AFV acquisition credits amounting to 95 percent of its covered vehicle acquisitions, which is 20 percentage points higher than the 75 percent AFV acquisition requirement (Appendix A). In short, VA:

- Acquired 1,091 EPAct-covered Light Duty Vehicles (LDV). Of these, 1,004 were AFVs – 185 more vehicles than the 75 percent compliance requirement of 819 AFVs.
- Received an additional 31 credits through the use of biodiesel.
- Earned a total of 1,035 credits (including vehicle acquisitions and additional credits) – 95 percent of covered acquisitions.

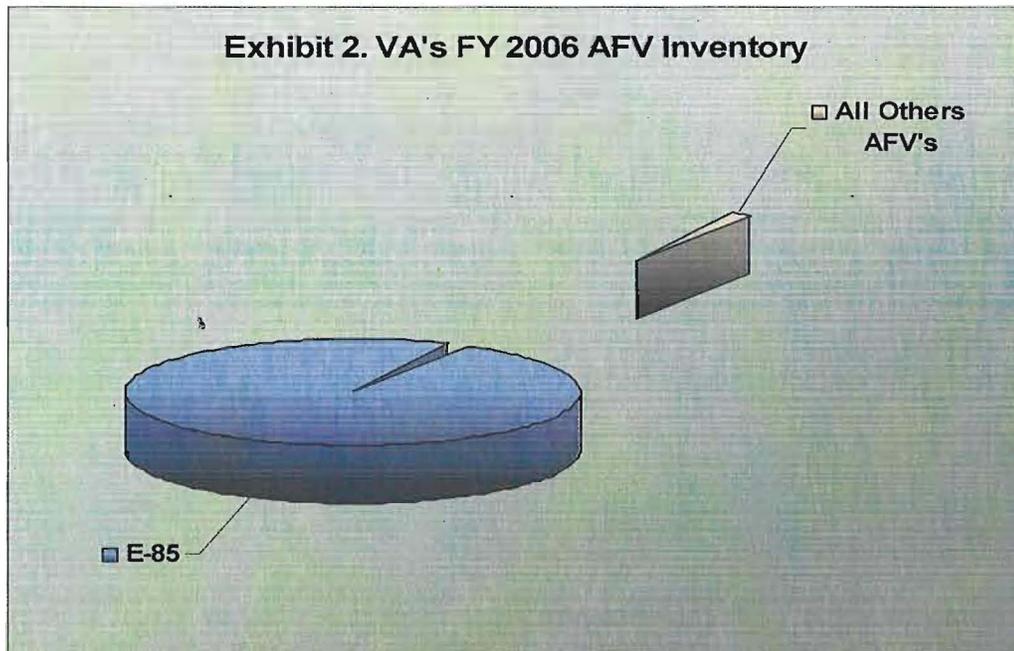
## Credits

In FY 2006, VA earned 1,035 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 alternate fuels. For this reporting period, VA earned 1,004 credits for AFV acquisitions, and 31 for biodiesel use.

## Vehicles

Flexible-fuel vehicles (FFV), that can run on E85 (85 percent ethanol and 15 percent gasoline) or gasoline, were the AFV of choice in FY 2006. Of the 1,004 AFVs acquired in FY 2006, 1,001 of them were FFVs. Additionally, 3 compressed natural gas (CNG) vehicles were acquired.

2,189, FFVs capable of operating on E85 comprise the overwhelming majority of VA's AFV fleet (Exhibit 2), with 29 CNG, 3 dedicated electric vehicles and 1 liquefied petroleum gas vehicle comprising the balance.



## Exemptions

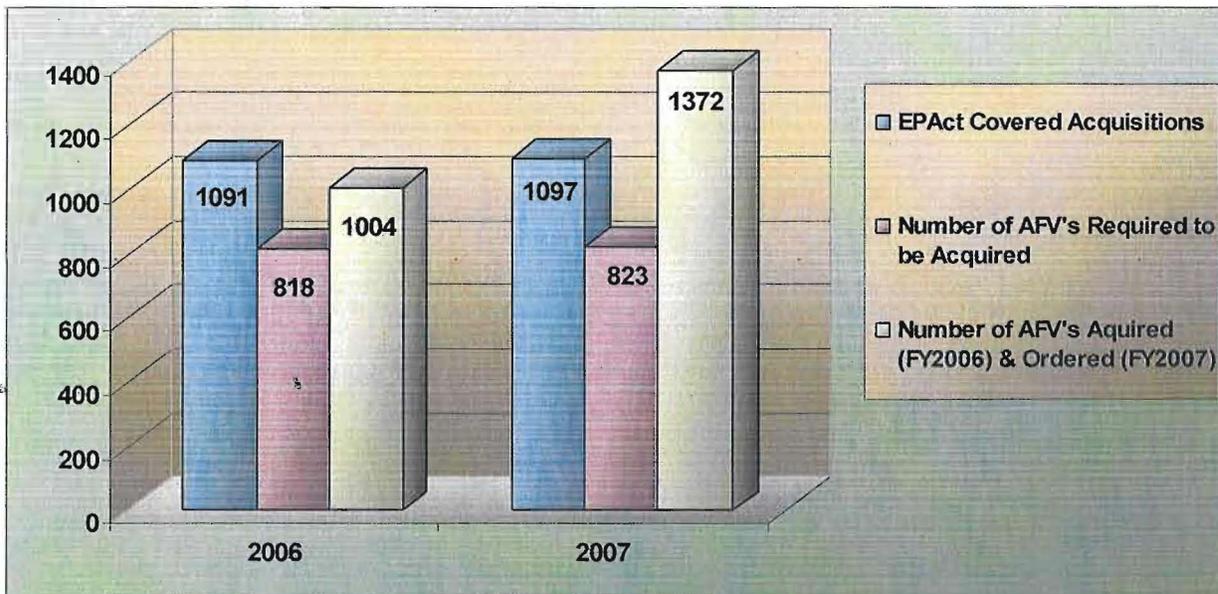
Of the 1,588 LDVs acquired by VA in FY 2006, 497 (31 percent) were considered exempt from compliance with EPAAct. Exemptions are granted for fleet size, geographic location or use outside a Metropolitan Statistical Area/Consolidated Metropolitan Statistical Area (MSA/CMSA), and use for law enforcement. In FY 2006, exemptions were granted as follows:

- Fleet size (12)
- Geographic (16)
- Law Enforcement (75)
- Non-MSA/CMSA Fleet (25)
- Non-MSA/CMSA Operation (369)

## FY 2007/2008 Projected Acquisitions

The appendices to this report offer a detailed look at VA's FY 2006 acquisitions and its projected acquisitions for FY 2007. As illustrated in Exhibit 3, VA has exceeded its annual EPAAct requirements in FY 2006 (achieving 95%), and plans to continue to exceed these requirements in FY 2007 (anticipating 125%), and VA expects this trend to continue in FY 2008 and beyond. VA has worked closely with the General Services Administration during FY 2006, and has recently revised the VA's FY 2007 vehicle order submitted to GSA. The revised order is the basis for the 2007 data in Exhibit 3. (These data vary from the F.A.S.T. generated reports in Appendices B and C, which indicate VA will achieve 46 and 43 percent in FY 2007 and 2008, respectively. Unfortunately, the GSA order for FY2007 was not available until after the F.A.S.T report closed for FY 2006, which contributed to this inaccuracy.)

**Exhibit 3. FY2006 EPAAct Covered/AFV Acquisitions and FY 2007 Planned EPAAct Covered/AFV Acquisitions**



## E.O. 13149 Compliance

E.O. 13149 calls for each agency to reduce vehicular petroleum consumption by 20 percent by the end of FY 2005 and specifies three approaches agencies should take to achieve this goal:

- Comply with EPA's annual AFV acquisition requirements (as previously discussed).
- Use alternative fuels in fleet AFVs the majority of the time.
- Increase the fuel economy of LDV acquisitions (excluding AFVs) by 3 mpg by the end of FY2005, as compared to the baseline FY 1999 acquisitions.

### Use Alternate Fuels in AFV's

In FY 2006, 3.8 percent of the fuel used in VA AFVs was alternative fuels. VA's fleet has approximately 11,000 vehicles in 270 unique fleets from the U.S. Virgin Islands to American Samoa and the Philippines. In many of the locations in which VA fleet vehicles operate alternate fuels and associated infrastructure is scarce. As more infrastructure becomes available, this percentage will increase. In the interim VA published a Vehicle Fleet Management Guidebook in December 2006, which provides guiding principles to improve the management of the VA vehicle fleet. Additionally, VA recently required all fleet managers to submit an alternate fueling plan to the Office of VA's Senior Transportation Official. These plans are being reviewed and will be compiled into an implementation plan for all VA fleets to meet mandated goals.

Exhibit 4 compares VA's covered fuel use in FY 2000 and FY 2006. Alternate fuels comprise a small portion of VA's covered fuel use. During this period, VA's vehicle fleet has grown 52.8 percent while the amount of alternative fuel consumed has increased over 1800 percent. While VA's total covered fuel consumption has increased 10.8 percent since FY 2000 the average GGE consumed per vehicle has decreased by 28.6 percent since FY 1999.

**Exhibit 4. VA's Total Covered Fuel Use**

Fuel Use	FY 2000 (GGE)	FY2006 (GGE)
<b>Alternate Fuel</b>		
B100	0	16,056
CNG	2,864	1,172
E85	0	37,658
Electricity	0	147
LNG	0	0
LPN	0	736
Total Alternate Fuel Use	2,864	55,769
<b>Petroleum</b>		
Diesel	1,253,887	1,195,724
Gasoline	5,023,247	5,756,518
Total Covered Petroleum Use	6,277,134	6,952,242
Total Covered Fuel Use	6,279,998	7,008,011
Alternate Fuel Use as a Percentage of Total Fuel Use	0.05%	0.80%

### Improve Fuel Economy

Toward the petroleum reduction goal set forth in E.O. 13149, the E.O. calls for each agency to increase the fuel economy of its LDV acquisitions (excluding AFVs) by at least 3 mpg by the end of FY 2005. VA has achieved this goal three times since FY 1999; however in FY 2006 the fuel economy of covered LDVs was 18 mpg the same as it was in FY 1999.

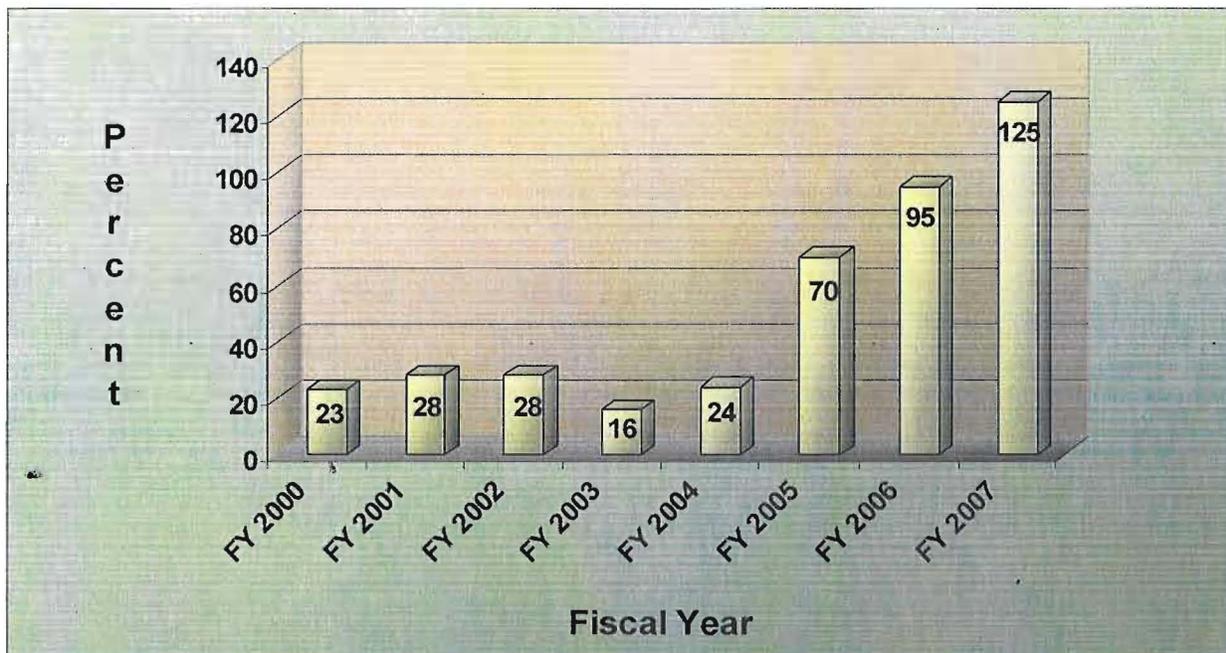
### Petroleum Consumption Progress Report

In FY 2006, VA consumed 55,769 GGE of alternative fuels, thereby reducing the gasoline and diesel fuel consumption in VA vehicles. Although VA did not reach the 20 percent reduction goal, it has been successful in displacing petroleum. Without E.O. 13149, VA's covered petroleum consumption would have grown from 6.27 million GGE in FY 1999, to greater than 7 million GGE in FY 2006.

### VA Fleet Successes

In FY 2006, VA fleets in Iowa, Minnesota and Louisiana, collectively consumed well over half (65 percent) of the E-85 utilized by the total VA fleet. The total number of vehicles in these fleets comprises less than 3 percent of all vehicles in VA's total fleet, and sets an example for the rest of VA to emulate. Similar results are expected with the remainder of the VA fleet as infrastructure for alternate fuels becomes more readily available. Through publication of the Vehicle Fleet Management Guidebook and leadership, VA has significantly advanced the rate of AFV acquisitions since FY 2000 (Exhibit 5), exceeding the requirements of the EPAct in FY 2006.

Exhibit 5. VA – AFV Acquisition Rate FY 2000 – FY 2007



## Summary and Conclusions

In FY 2006, VA exceeded its EPO Act FY 2006 AFV acquisition requirements and expects to exceed them in FY 2007 and FY 2008. Toward compliance with E.O. 13149, VA used alternative fuels in its AFVs 3.8 percent by volume, and maintained the fuel economy of its fleet even with that of FY 1999 levels. VA has implemented new performance monitors for the Senior Transportation Official to develop alternate fueling plans, in addition to new performance monitors for Executives throughout the organization. VA recently introduced the Comprehensive Automobile Reporting System (CARS), vehicle fleet management tool. This web-based application contains a variety of metrics that will enable vehicle fleet managers to easily and uniformly track fleet vehicles and expenses. An important feature of CARS is the utilization feature which compares vehicle use against established criteria and identifying resources that can be better utilized and more consistent with the fleet management principles established in the Vehicle Fleet Management Guidebook. VA will continue its efforts to reduce petroleum consumption through increased alternative fuel usage, accelerated replacement of conventional vehicles with AFVs, and acquisition of hybrid and fuel-efficient vehicles for fleets not covered by these requirements. Exhibit 6 summarizes VA's FY 2006 performance.

Exhibit 6. VA's Performance in Meeting its Requirements	FY 1999 Baseline	FY 2006	Change FY 1999 to FY 2006
EPO Act	N/A	95%	N/A
Alternative Fuel Use in AFVs	N/A	3.8%	N/A
Fuel Economy of LDV Acquisitions	18 MPG	18 MPG	0 MPG
Petroleum Consumption	6,277,134	6,952,242	10.8%

# Appendices

Appendix A

Actual Department of Veterans Affairs FY 2006 Vehicle Acquisitions					
Actual FY 2006 Light-Duty Vehicle Acquisitions					Total Vehicle Inventory
	Leased	Purchased	Total		
Total number of Light-Duty (8,500 GVWR) - Vehicle Acquisitions		1,376	212	1,588	8,013
Exemptions	Fleet Size	1	11	12	194
	Geographic	0	16	16	205
	Law Enforcement	75	0	75	254
	Non-MSA Operation (fleet)	3	22	25	216
	Non-MSA Operation (vehicles)	368	1	369	(n/a)
<b>EPACT Covered Acquisitions</b>		<b>929</b>	<b>162</b>	<b>1,091</b>	7,144
Actual FY 2006 AFV Acquisitions					Total Vehicle Inventory
Vehicle	Leased	Purchased	Total		
Sedan	CNG Bi-Fuel Subcompact	0	0	0	5
Sedan	E-85 Flex-Fuel Compact	446	0	446	902
Sedan	E-85 Flex-Fuel Midsize	246	1	247	335
Pickup 4x2	CNG Bi-Fuel	2	0	2	15
Pickup 4x2	CNG Dedicated	0	0	0	2
Pickup 4x2	E-85 Flex-Fuel	23	0	23	111
Pickup 4x2	Electric Dedicated	0	0	0	1
Pickup 4x2	LPG Bi-Fuel	0	0	0	1
Pickup 4x4	E-85 Flex-Fuel	9	0	9	16
SUV 4x2	E-85 Flex-Fuel	13	0	13	21
SUV 4x4	E-85 Flex-Fuel	16	0	16	72
Minivan 4x2 (Passenger)	CNG Dedicated	0	0	0	1
Minivan 4x2 (Passenger)	E-85 Flex-Fuel	235	2	237	715
Minivan 4x2 (Passenger)	Electric Dedicated	0	0	0	2
Minivan 4x2 (Cargo)	E-85 Flex-Fuel	10	0	10	11
Other 4x2	CNG Bi-Fuel	0	0	0	1
Van MD (Passenger)	CNG Bi-Fuel	0	0	0	8
Van MD (Passenger)	CNG Dedicated	0	0	0	2
HD 16,001 + GVWR	CNG Bi-Fuel	1	0	1	1
<b>Total Number of AFV Acquisitions</b>		<b>1,001</b>	<b>3</b>	<b>1,004</b>	<b>2,222</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 - Actual				31	
<b>Total AFV Acquisitions with Credits</b>		<b>1,001</b>	<b>3</b>	<b>1,035</b>	
<b>2006 AFV Percentage of Covered Light-Duty Vehicle Acquisition</b>				<b>95%</b>	

**Appendix B**

<b>Planned Department of Veterans Affairs FY 2007 Vehicle Acquisitions</b>				
<b>Planned FY 2007 Light-Duty Vehicle Acquisitions</b>				
		<b>Leased</b>	<b>Purchased</b>	<b>Total</b>
Total number of Light-Duty (8,500 GVWR) - Vehicle Acquisitions		1,729	115	1,844
Exemptions	Fleet Size	1	11	12
	Geographic	0	12	12
	Law Enforcement	69	0	69
	Non-MSA Operation (fleet)	3	13	16
	Non-MSA Operation (vehicles)	472	0	472
<b>EPACT Covered Acquisitions</b>		<b>1,184</b>	<b>79</b>	<b>1,263</b>
<b>Planned FY 2007 AFV Acquisitions</b>				
<b>Vehicle</b>		<b>Leased</b>	<b>Purchased</b>	<b>Total</b>
Sedan	CNG Bi-Fuel Subcompact	5	0	5
Sedan	E-85 Flex-Fuel Compact	160	0	160
Sedan	E-85 Flex-Fuel Midsize	42	1	43
Sedan	E-85 Flex-Fuel Large	0	1	1
Pickup 4x2	CNG Bi-Fuel	6	0	6
Pickup 4x2	CNG Dedicated	2	0	2
Pickup 4x2	E-85 Flex-Fuel	44	5	49
Pickup 4x2	LPG Bi-Fuel	1	0	1
Pickup 4x4	E-85 Flex-Fuel	2	0	2
SUV 4x2	E-85 Flex-Fuel	1	0	1
SUV 4x4	E-85 Flex-Fuel	5	0	5
Minivan 4x2 (Passenger)	E-85 Flex-Fuel	178	12	190
Van 4x2 (Passenger)	E-85 Flex-Fuel	0	6	6
Van MD (Passenger)	CNG Bi-Fuel	4	0	4
<b>Total Number of AFV Acquisitions</b>		<b>450</b>	<b>25</b>	<b>475</b>
Zero Emission Vehicle Credits		0	0	0
Dedicated Light-Duty AFV Credits		2	0	2
Dedicated Medium-Duty AFV Credits		0	0	0
Dedicated Heavy-Duty AFV Credits		0	0	0
Biodiesel Fuel Usage Credits - Planned				99
<b>Total AFV Acquisitions with Credits</b>		<b>452</b>	<b>25</b>	<b>576</b>
<b>AFV Percentage of Covered Light-Duty Vehicle Acquisition</b>				<b>46%</b>

Appendix C

<b>Projected Department of Veterans Affairs FY 2008 Vehicle Acquisitions</b>				
<b>Projected FY 2008 Light-Duty Vehicle Acquisitions</b>				
	<b>Leased</b>	<b>Purchased</b>	<b>Total</b>	
Total number of Light-Duty (8,500 GVWR) - Vehicle Acquisitions	1,732	88	1,820	
Exemptions	Fleet Size	1	6	7
	Geographic	0	9	9
	Law Enforcement	0	0	0
	Non-MSA Operation (fleet)	3	3	6
	Non-MSA Operation (vehicles)	486	0	486
<b>EPACT Covered Acquisitions</b>	<b>1,242</b>	<b>70</b>	<b>1,312</b>	
<b>Projected FY 2008 AFV Acquisitions</b>				
<b>Vehicle</b>	<b>Leased</b>	<b>Purchased</b>	<b>Total</b>	
Sedan	CNG Bi-Fuel Subcompact	5	0	5
Sedan	E-85 Flex-Fuel Compact	158	0	158
Sedan	E-85 Flex-Fuel Midsize	42	1	43
Pickup 4x2	CNG Bi-Fuel	6	0	6
Pickup 4x2	CNG Dedicated	2	0	2
Pickup 4x2	E-85 Flex-Fuel	44	4	48
Pickup 4x2	LPG Bi-Fuel	1	0	1
Pickup 4x4	E-85 Flex-Fuel	2	0	2
SUV 4x2	E-85 Flex-Fuel	1	0	1
SUV 4x4	E-85 Flex-Fuel	5	0	5
Minivan 4x2 (Passenger)	CNG Dedicated	0	1	1
Minivan 4x2 (Passenger)	E-85 Flex-Fuel	177	12	189
Van 4x2 (Passenger)	E-85 Flex-Fuel	0	1	1
Van MD (Passenger)	CNG Bi-Fuel	4	0	4
HD 16,001 + GVWR	Electric Dedicated	0	2	2
<b>Total Number of AFV Acquisitions</b>	<b>447</b>	<b>21</b>	<b>468</b>	
Zero Emission Vehicle Credits	0	0	0	
Dedicated Light-Duty AFV Credits	2	1	3	
Dedicated Medium-Duty AFV Credits	0	0	0	
Dedicated Heavy-Duty AFV Credits	0	6	6	
Biodiesel Fuel Usage Credits - Projected			93	
<b>Total AFV Acquisitions with Credits</b>	<b>449</b>	<b>28</b>	<b>570</b>	
<b>AFV Percentage of Covered Light-Duty Vehicle Acquisition</b>			<b>43%</b>	