

# Department of Veterans Affairs



## Vehicle Fleet Report On Alternative Fuel Vehicles

FY 2009

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**Department of Veterans Affairs (VA)**  
**Fiscal Year 2009 Vehicle Fleet Report on Alternative Fuel Vehicles**

**I. Introduction**

The Department of Veterans Affairs (VA) is pleased to report significant progress towards achieving goals of the Energy Policy Act (EPAct) and Executive Order (EO) 13423, Strengthening Federal Environment, Energy and Transportation Management, by increasing alternative fuel vehicle (AFV) acquisitions and alternative fuel use. VA met the FY 2009 petroleum reduction, AFV acquisition and alternative fuel requirements. Our Department-level Fleet Management Task Force continues to execute a multi-year action plan that addresses the following main agency challenges:

- (1) Data and Reporting. VA participated in the General Services Administration's (GSA) pilot vehicle Federal Fleet Management System (FFMS) program. VA's participation helped to create a functional data system that can be adapted throughout the Federal government and provide VA a unified data system.
- (2) Utilization. VA is updating existing guidance and developing new policies and procedures to ensure compliance with Federal regulations and executive orders, and to enhance efficiency. Among other actions, all VA components will conduct annual utilization analyses for Departmental review.
- (3) Fueling. Actions planned and underway include identifying key facilities for upgrading existing fueling infrastructure, and installing new alternative fueling stations to maximize opportunities to increase alternative fuel use. VA has been successful in opening 10 new alternative fueling stations. In FY 2009, VA conducted a national planning and concept-level design study for alternative fueling station construction. Eighty-four locations have been identified for potential development with \$15 million in approved minor construction funding.
- (4) Acquisition and Disposal. VA continues to exceed the mandated 75 percent AFV acquisition requirement, and expanded its acquisition strategy to include hybrid electric vehicles in FY 2010. VA is establishing new policies and procedures for the acquisition and disposal of vehicles from a "cradle to grave" perspective, ensuring compliance with Federal mandates. Planned actions include educating VA fleet administrators how to right-size the fleet while increasing our alternative fuel vehicle fleet.

These steps and other actions will assist VA in achieving its primary goal of providing care for our Nation's Veterans and their families while striving to achieve

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compliance with Federal mandates for efficient and effective use of the agency's fleet.

**II. Compliance with Executive Order 13423**

The overall objective of EO 13423, Section 2(g) is for Federal agencies to take a leadership role in reducing petroleum consumption and increasing the use of alternative fuels in motor vehicles.

Performance Against Baselines. In FY 2009, VA exceeded alternative fuel use requirements of the EO. **Tables 1 and 2** present the 2005 baselines (established by the Department of Energy) and VA's annual performance with respect to the baselines through the current reporting year. **Table 3** presents details on baseline and 2009 fuel use.

**Table 1. VA FY 2005 Baseline Petroleum Use (EO 13423) and Comparison to FYs 2006-2009 Petroleum Usage**

EO 13423 METRICS - PETROLEUM USE			
	Petroleum Use (Gasoline Gallon Equivalent (GGE))	Percent Change from Previous Year	Percent Change from Base Year (2005)
FY 2005	8,514,876	--	--
FY 2006	6,952,242	- 18%	- 18%
FY 2007	6,543,626	- 6%	- 23%
FY 2008	7,253,776	11%	- 15%
FY 2009	7,911,663	9%	- 7%

**Table 2. VA FY 2005 Baseline Alternative Fuel Use and Comparison to FYs 2006-2008 Alternative Fuel Usage**

ALTERNATIVE FUEL USE			
	Alternative Fuel Use (GGE)	Percent Change from Previous Year	Percent Change from Base Year (2005)
FY 2005	36,583	--	--
FY 2006	55,768	52%	52%
FY 2007	78,168	40%	114%
FY 2008	427,862	447%	1,070%
FY 2009	728,946	70%	1,893%

**Table 3. VA FY 2005 Baseline Alternative Fuel Use and Comparison to FY 2009 Alternative Fuel Usage**

	FY 2005 BASELINE	FY 2009
	<i>Gasoline Gallon Equivalent (GGE)</i>	
Alternative Fuel		
B100	n/a	4,785
CNG	n/a	2,512
E85	n/a	702,507
Electricity	n/a	0
LNG	n/a	0
LPG	n/a	0
M-85	n/a	0
Total Alternative Fuel Use	36,583	728,946
Petroleum		
B20	n/a	23,927
Diesel	n/a	1,580,015
Gasoline	n/a	6,728,085
Total Covered Petroleum Use	8,514,877	7,911,663

Table 4 lists the EO 13423 Section 2(g) requirements for Federal fleets and summarizes VA's related FY 2009 performance.

**Table 4. EO 13423 Federal Fleet Requirements and VA FY 2009 Performance**

Performance Measure	Goal / Requirement	VA FY 2009 Performance
Petroleum consumption reduction	Reduce petroleum consumption by subject vehicles 2 percent or more annually in FYs 2007-2015, compared to the FY 2005 subject petroleum baseline	Requirement exceeded. VA consumed 7.9 million gasoline gallon equivalents (GGE), a decrease of 7 percent from the FY 2005 baseline of 8.5 million GGE, vs. the goal of a 2 percent decrease.
Significant increase in consumption of alternative fuels	Increase consumption of alternative fuels by at least 10 percent compounded annually, relative to the FY 2005 alternative fuel baseline, beginning in FY 2007	Requirement exceeded. VA consumed 728,946 GGE, a 1,893 percent increase from the FY 2005 baseline of 36,583 GGE and 675,385 GGE better than the goal of 53,561 GGE.
Use of plug-in hybrid (PIH) vehicles (also known as PHEVs or HEVs)	Use plug-in hybrid (PHEV) vehicles as they become commercially available and have life-cycle costs comparable to non-PHEV vehicles, and consider the use of PHEVs as a strategy to help meet the goals of the EO 13423.	Requirement exceeded. GSA provided HEVs in its FY 2009 AFV product line and VA has ordered 39 HEVs for delivery in FY 2010. Use of HEVs is compatible with VA's needs to help meet the EO mandate.

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Future Performance. VA's Fleet Management Task Force continues to execute the agency's Fleet Management Action Plan, which provides a blueprint to improve the management and performance of the VA vehicle fleet, including alternative fuel use and petroleum reduction. The plan features construction of alternative fueling stations, training for fleet managers and administrators, and use of annual utilization reports in order to right size the fleet to best fit agency missions and goals. With \$15 million in approved minor construction funding, VA completed a national planning study in FY 2009 to identify and prioritize approximately 35 sites for installing alternative fueling capacity, and to develop concept-level design and construction cost estimates. The next step is to select the sites for construction and procure construction contracts for building the fueling capacity.

VA is increasingly reaching out to provide direct patient care to Veterans not served by VA facilities. While VA was able to meet its petroleum consumption reduction this year, the increased fuel use associated with outreach patient care will present significant challenges in the future.

### III. Compliance with Energy Policy Acts of 1992 and 2005 (EPAAct)

#### AFV Acquisition

VA exceeded its EPAAct requirements for AFV acquisitions in FY 2009 (see **Attachment A** for details). As a result of its AFV acquisitions and biodiesel fuel use in FY 2009, VA earned AFV acquisition credits amounting to 118 percent of its covered vehicle acquisitions, which is 43 percentage points higher than the EPAAct acquisition requirement of 75 percent.

Specifically, VA:

- Acquired 2,083 EPAAct-covered light duty vehicles (LDVs). Of these LDVs, 1,443 (69 percent) were AFVs;
- Received an additional 47 credits through the use of biodiesel;
- Earned a total of 1,495 credits (including vehicle acquisitions and additional credits) to reach 118 percent of covered 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 B20 (20 percent biodiesel and 80 percent petroleum diesel) used. Additional credits are earned for AFVs that operate exclusively on alternative fuels. For this reporting period, VA earned 1,495 credits for AFV acquisitions, and 47 for biodiesel use.

Vehicles. Flexible-fuel vehicles (FFVs) with the capability to run on E85 (85 percent ethanol and 15 percent gasoline) or gasoline were the AFV of choice in FY 2008. Of the 1,443 AFVs that VA acquired in FY 2009, 1,341 were FFVs. VA also acquired 3 compressed natural gas (CNG) vehicles.

Exemptions. Of the 1,443 LDVs that VA acquired in FY 2009, 816 were considered exempt from compliance with EPAAct. Exemptions are in general granted for fleet

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size, geographic location or use outside of a Metropolitan Statistical Area/Consolidated Metropolitan Statistical Area (MSA/CMSA), and use for law enforcement. In FY 2009, VA exemptions were as follows:

### VA Fleet Exemptions

Fleet size	26
Geographic	407
Law Enforcement	60
Non-MSA Operation (Fleet)	38
Non-MSA Operation (Vehicles)	<u>285</u>
TOTAL	816

Projected Acquisitions in FYs 2010 and 2011. **Attachments B and C** to this report offer a detailed look at VA's FY 2010 planned acquisitions and its FY 2011 projected acquisitions.

As illustrated in the chart on the following page, EAct-covered acquisitions in FY 2009 totaled 1,267 vehicles. The required number of AFVs to be acquired was 1,406 and the number of AFVs actually acquired and ordered was 1,443.

EAct-covered acquisitions in FY 2010 are projected to be 716 vehicles, a 43 percent decrease from FY 2009. The required number of AFVs to be acquired is 852 and the number of AFVs projected to be acquired and ordered is 901, a 38 percent decrease from FY 2009.

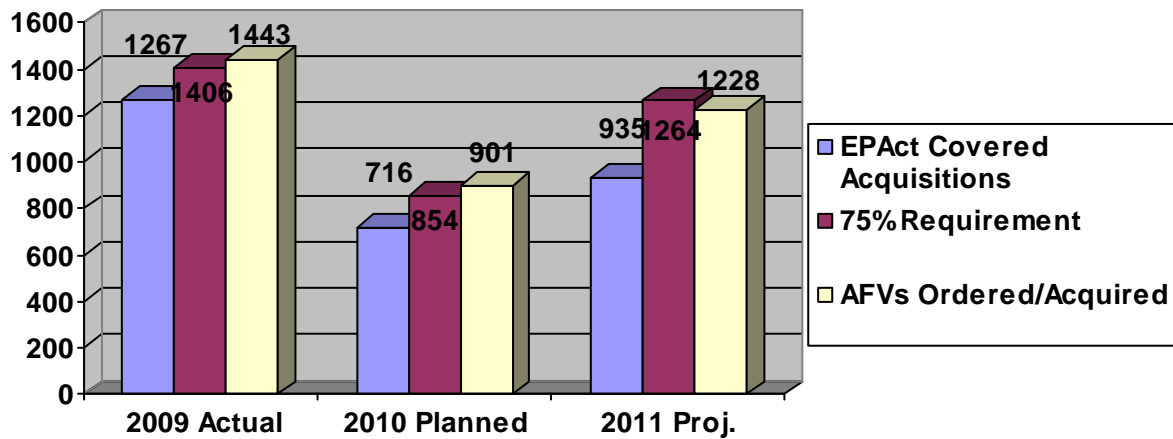
For FY 2011, acquisitions are projected to total 935, a 31 percent increase from FY 2010. The required number of AFVs to be acquired is 1,264, and the number of AFVs VA anticipates acquiring and ordering is 1,228, a 36 percent increase from FY 2009.

### **Alternative Fuel Use in AFVs**

VA's total fleet is 13,459 vehicles in 286 fleets across the United States, including the U.S. Virgin Islands, Puerto Rico, American Samoa and the Philippines. In many locations where VA fleet vehicles operate, alternative fuels and associated infrastructure are sparse or non-existent. While VA is more than successful in acquiring the mandated percentage of AFVs each year, meeting the EAct 2005 mandate that each AFV run on alternative fuel 100 percent of the time is a major challenge. In addition to lack of commercially available fuel and fueling infrastructure, problems in accurately recording alternative fuel purchases continue to confront the industry. As alternative fueling infrastructure becomes more available, and as VA continues to pursue its strategies of installing on-site fueling facilities and acquiring HEVs where appropriate, VA anticipates steadily increasing use of alternative fuels in its AFV fleet.



**Actual FY 2008, Planned FY 2009 and Projected FY 2010  
EPA Act Covered/AFV Acquisitions**



**IV. Summary and Conclusions**

In FY 2009, VA fully satisfied the petroleum consumption reduction, alternative fuel vehicle acquisition, and alternative fuel use requirements of EO 13423 and the Energy Policy Acts of 1992 and 2005. However, fulfilling VA's mission increasingly entails providing outreach patient care to Veterans where they live, with concomitant increases in fuel use. With Department-level coordination and planning taking place through the Fleet Management Task Force, and with implementation of a VA-wide Fleet Management Action Plan, VA anticipates continuing to improve its fleet management practices to better meet Federal fleet mandates and internal goals.

**ATTACHMENT A**

**FY 2009 Actual VA Vehicle Acquisitions**

Attachment A includes the following tables:

1. 2009 Actual Light-Duty Vehicle Acquisitions and Exemptions
2. 2009 Actual Alternative Fuel Vehicle Acquisition Detail
3. 2009 Actual EPA Act Acquisition Credits Summary

<b>1. 2009 Actual Light-Duty Vehicle Acquisitions and Exemptions<sup>1</sup></b>			
	<b>Acquisitions</b>		
	<b>Leased</b>	<b>Purchased</b>	<b>Total</b>
Total Light-Duty Vehicle Acquisitions	1,624	459	2,083
Fleet Exemptions: Fleet Size	22	4	26
Fleet Exemptions: Foreign	0	0	0
Fleet Exemptions: Geographic	286	121	407
Fleet Exemptions: Non-MSA Operation	30	8	38
Vehicle Exemptions: LE Vehicle	56	4	60
Vehicle Exemptions: Non-MSA Operation	275	10	285
Total EPA Act-Covered Vehicles	955	312	1,267

<sup>1</sup> **Exemptions**

The following vehicles do not count toward a fleet's annual light-duty vehicle count and the associated determination of AFV-acquisition requirements because they are excluded. **They do count, however, toward satisfying AFV-acquisition requirements.**

- Emergency vehicles, including vehicles directly used in the emergency repair of transmission lines and in the restoration of electricity service following power outages
- Law enforcement vehicles

**ATTACHMENT A - continued**

<b>2. 2009 Actual Alternative Fuel Vehicle Acquisition Detail</b>						
<b>Vehicle Type</b>	<b>Fuel</b>	<b>LE</b>	<b>Acquisitions</b>			<b>EPAct Credits</b>
			<b>Lease</b>	<b>Purchase</b>	<b>Total</b>	
<b>Light Duty Vehicles</b>						
Sedan/St Wgn Compact	CNG DE	No	1	0	1	1
Sedan/St Wgn Compact	E85 FF	No	297	8	305	305
Sedan/St Wgn Compact	E85 FF	Yes	11	0	11	11
Sedan/St Wgn Compact	GAS HY <sup>2</sup>	No	15	9	24	24
Sedan/St Wgn Large	E85 FF	No	20	5	25	25
Sedan/St Wgn Large	E85 FF	Yes	13	1	14	14
Sedan/St Wgn Midsize	E85 FF	No	316	32	348	348
Sedan/St Wgn Midsize	E85 FF	Yes	23	1	24	24
Sedan/St Wgn Midsize	GAS HY	No	3	25	28	28
Sedan/St Wgn Midsize	GAS HY	Yes	2	0	2	2
Sedan/St Wgn Subcompact	GAS HY	No	0	1	1	1
LD Minivan 4x2 (Cargo)	E85 FF	No	20	5	25	25
LD Minivan 4x2 (Passenger)	E85 FF	No	224	61	285	285
LD Minivan 4x2 (Passenger)	E85 FF	Yes	1	0	1	1
LD Pickup 4x2	E85 FF	No	23	27	50	50
LD Pickup 4x2	GAS HY	No	0	3	3	3
LD SUV 4x2	E85 FF	No	42	5	47	47
LD SUV 4x2	E85 FF	Yes	6	1	7	7
LD SUV 4x2	GAS HY	No	1	15	16	16
LD Van 4x2 (Cargo)	E85 FF	No	12	0	12	12
LD Van 4x2 (Passenger)	E85 FF	No	48	23	71	71
LD Minivan 4x4 (Passenger)	E85 FF	No	0	2	2	2
LD Pickup 4x4	E85 FF	No	7	3	10	10
LD Pickup 4x4	GAS HY	No	1	0	1	1
LD SUV 4x4	E85 FF	No	17	22	39	39
LD SUV 4x4	E85 FF	Yes	11	0	11	11
LD SUV 4x4	GAS HY	No	12	12	24	24
LD Van 4x4 (Cargo)	E85 FF	No	1	0	1	1
LD Van 4x4 (Passenger)	E85 FF	No	5	0	5	5
<b>Medium Duty Vehicles</b>						
Bus	CNG DE	No	0	2	2	2
MD SUV	E85 FF	No	3	2	5	5
MD Van (Cargo)	E85 FF	No	4	1	5	5
MD Van (Passenger)	E85 FF	No	33	5	38	38
<b>Totals:</b>			<b>1,172</b>	<b>271</b>	<b>1,443</b>	<b>1,443</b>

<sup>2</sup> Gas HY = Gasoline Hybrid

**ATTACHMENT A - continued**

<b>3. 2009 Actual EPA Act Acquisition Credits Summary</b>	
Base AFV Acquisition Credits:	1,443
Zero Emission Vehicle (ZEV) Credits:	0
Dedicated Light Duty AFV Credits:	1
Dedicated Medium Duty AFV Credits:	4
Dedicated Heavy Duty AFV Credits:	0
Law Enforcement or Emergency/Emergency Response Vehicle Credits: <sup>1</sup>	70
Biodiesel Fuel Usage Credits: <sup>3</sup>	47
Total EPA Act Credits:	1,495
Overall EPA Act Compliance Percentage: <sup>4</sup>	118 %

<sup>3</sup> Agencies receive credits for each light-, medium-, or heavy-duty AFV they acquire each year and for biodiesel (typically used in B20, a blend of 20% biodiesel, 80% petroleum diesel) used in fleet vehicles.

<sup>4</sup> **The Overall EPA Act Compliance Percentage** formula is calculated by the FAST data system.

All new vehicle acquisitions for the year, minus all exemptions, equals covered acquisitions;

Percentage is the number of Alternative Fueled Vehicle acquisitions (AFV) vs non AFV;

Total must equal at least 75 percent.

**ATTACHMENT B**

**FY 2010 Planned VA Vehicle Acquisitions**

Attachment B includes the following tables:

4. Projected FY 2010 Light-Duty Vehicle Acquisitions
5. Projected FY 2010 AFV Acquisitions

<b>4. Projected FY 2010 Light-Duty Vehicle Acquisitions</b>				
		Leased	Purchased	Total
Total number of Light-Duty (8,500 GVWR) - Vehicle Acquisitions		1,091	126	1,217
Exemptions	Fleet Size	9	0	9
	Geographic	205	55	260
	Law Enforcement	40	0	40
	Non-MSA Operation (fleet)	50	1	51
	Non-MSA Operation (vehicles)	141	0	141
EPACT Covered Acquisitions		646	70	716
<b>5. Projected FY 2010 AFV Acquisitions</b>				
Vehicle		Leased	Purchased	Total
Sedan	E-85 Flex-Fuel Compact	243	3	246
Sedan	E-85 Flex-Fuel Midsize	296	3	299
Pickup 4x2	E-85 Flex-Fuel	16	5	21
Pickup 4x4	E-85 Flex-Fuel	7	2	9
SUV 4x2	E-85 Flex-Fuel	4	0	4
SUV 4x4	E-85 Flex-Fuel	20	4	24
Minivan 4x2 (Passenger)	E-85 Flex-Fuel	166	32	198
Minivan 4x4 (Passenger)	E-85 Flex-Fuel	0	2	2
Minivan 4x2 (Cargo)	E-85 Flex-Fuel	6	2	8
Van 4x2 (Passenger)	E-85 Flex-Fuel	12	11	23
Van 4x4 (Passenger)	E-85 Flex-Fuel	2	0	2
Van 4x2 (Cargo)	E-85 Flex-Fuel	2	0	2
Van MD (Passenger)	CNG Bi-Fuel	1	0	1
Van MD (Passenger)	E-85 Flex-Fuel	8	5	13
Total Number of AFV Acquisitions		783	69	852
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 - Projected		0	0	49
Total AFV Acquisitions with Credits		783	69	901
AFV Percentage of Covered Light-Duty Vehicle Acquisition				126 %

**ATTACHMENT C**

Attachment C includes the following tables:

6. 2011 Projected Light-Duty Vehicle Acquisitions and Exemptions
7. 2011 Projected Alternative Fuel Vehicle Acquisition Detail
8. 2011 Projected EPCa Acquisition Credits Summary

<b>6. 2011 Projected Light-Duty Vehicle Acquisitions and Exemptions</b>			
	<b>Acquisitions</b>		
	<b>Leased</b>	<b>Purchased</b>	<b>Total</b>
Total Light-Duty Vehicle Acquisitions	1,406	98	1,504
Fleet Exemptions: Fleet Size	33	4	37
Fleet Exemptions: Foreign	0	0	0
Fleet Exemptions: Geographic	254	17	271
Fleet Exemptions: Non-MSA Operation	30	4	34
Vehicle Exemptions: LE Vehicle	26	0	26
Vehicle Exemptions: Non-MSA Operation	198	3	201
Total EPCa-Covered Vehicles	865	70	935

**ATTACHMENT C - continued**

<b>7. 2011 Projected Alternative Fuel Vehicle Acquisition Detail</b>						
<b>Vehicle Type</b>	<b>Fuel</b>	<b>LE</b>	<b>Acquisitions</b>			<b>EPAct Credits</b>
			<b>Lease</b>	<b>Purchase</b>	<b>Total</b>	
<b>Light Duty Vehicles</b>						
Sedan/St Wgn Compact	CNG DE	No	2	0	2	2
Sedan/St Wgn Compact	E85 FF	No	151	0	151	151
Sedan/St Wgn Compact	E85 FF	Yes	11	0	11	0
Sedan/St Wgn Compact	GAS HY	No	6	0	6	6
Sedan/St Wgn Large	E85 FF	No	13	0	13	13
Sedan/St Wgn Large	E85 FF	Yes	5	0	5	0
Sedan/St Wgn Midsize	E85 FF	No	655	0	655	655
Sedan/St Wgn Midsize	E85 FF	Yes	7	0	7	0
Sedan/St Wgn Midsize	GAS HY	No	2	0	2	2
LD Minivan 4x2 (Cargo)	E85 FF	No	7	3	10	10
LD Minivan 4x2 (Passenger)	E85 FF	No	214	32	246	246
LD Minivan 4x2 (Passenger)	E85 FF	Yes	1	0	1	0
LD Pickup 4x2	E85 FF	No	16	4	20	20
LD SUV 4x2	E85 FF	No	5	1	6	6
LD SUV 4x2	E85 FF	Yes	2	0	2	0
LD Van 4x2 (Cargo)	E85 FF	No	1	0	1	1
LD Van 4x2 (Passenger)	E85 FF	No	32	5	37	37
LD Minivan 4x4 (Passenger)	E85 FF	No	5	0	5	5
LD Pickup 4x4	E85 FF	No	6	2	8	8
LD SUV 4x4	E85 FF	No	37	0	37	37
LD SUV 4x4	E85 FF	Yes	8	0	8	0
LD SUV 4x4	GAS HY	No	4	0	4	4
LD Van 4x4 (Cargo)	E85 FF	No	1	0	1	1
LD Van 4x4 (Passenger)	E85 FF	No	1	0	1	1
<b>Medium Duty Vehicles</b>						
MD SUV	E85 FF	No	1	0	1	1
MD SUV	E85 FF	Yes	1	0	1	0
MD Van (Cargo)	E85 FF	No	2	0	2	2
MD Van (Cargo)	E85 FF	Yes	1	0	1	0
MD Van (Passenger)	CNG BI	No	1	0	1	1
MD Van (Passenger)	E85 FF	No	14	5	19	19
<b>Totals:</b>			<b>1,212</b>	<b>52</b>	<b>1,264</b>	<b>1,228</b>

**ATTACHMENT C - continued**

<b>8. 2011 Projected EPA Act Acquisition Credits Summary</b>	
Base AFV Acquisition Credits:	1,228
Zero Emission Vehicle (ZEV) Credits:	0
Dedicated Light Duty AFV Credits:	2
Dedicated Medium Duty AFV Credits:	0
Dedicated Heavy Duty AFV Credits:	0
Biodiesel Fuel Usage Credits:	81
Total EPA Act Credits:	1,311
Overall EPA Act Compliance Percentage <sup>5</sup> :	140 %

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<sup>5</sup> **The Overall EPA Act Compliance Percentage** formula is calculated by the FAST data system. All new vehicle acquisitions for the year, minus all exemptions, equals covered acquisitions; Percentage is the number of Alternative Fueled Vehicle acquisitions (AFV) vs non AFV; Total must equal at least 75 percent.