U.S. Navy
Fleet AFV Program Report for Fiscal Year 2009
January 12, 2010

This *U.S. Navy Fleet AFV Program Report for Fiscal Year 2009* presents the Department's data on the number of alternative fuel vehicles (AFVs) acquired in fiscal year (FY) 2009, and its planned, projected, and forecasted acquisitions for FY 2010, FY 2011, and FY 2012, respectively. The report has been developed in accordance with the Energy Policy Act of 1992 (EPAct) (42 U.S.C. 13211-13219) as amended by the Energy Conservation Reauthorization Act of 1998 (Public Law 105-388) (ECRA), EPAct 2005, and Executive Order 13423. As shown in Figure 1, Navy was able for the seventh year in a row to exceed the 75 percent AFV requirement; against an acquisition requirement of 2,315 vehicles it acquired 2,757 AFV/ credits in FY 2009, or 89%. In order to continue to achieve the goal in FY 2010 and beyond, the Navy will continue to acquire the maximum number of AFVs (based on model availability) in both MSA and non-MSA areas in the U.S., concentrating AFVs at those sites with available alternative fueling infrastructure; continue to acquire the maximum number of AFV replacements under GSA leases, considering Department of Navy strategies and budget constraints; and acquire the maximum number of AFV credits through the use of biodiesel fuel. The Navy directed GSA to continue assessing a surcharge in 2009 to be applied to all Navy vehicle leases under GSA in order to generate funds to offset the differential cost of acquiring AFVs; use of the surcharge in FY 2009 was a key factor in Navy's ability to exceed the 75% EPAct mandate. Funding for AFVs through the procurement process will be obtained from current budgeted amounts. The Navy continues to partner with fuel suppliers and Defense Logistics Agency to provide alternate fuel and alternate fuel infrastructure, including biodiesel, at all major fleet locations. The Navy is acquiring hybrid electric vehicles as they become more readily available from vehicle manufacturers. Current projections indicate the Navy will exceed the 75% target in FY 2010, FY 2011 and FY 2012.

Legislative Requirements

EPAct 1992 requires that 75 percent of all covered light-duty vehicles acquired for Federal fleets in FY 1999 and beyond must be AFVs. This applies to fleets that have 20 or more 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. EPAct also sets a goal of using replacement fuels to displace at least 30 percent of the projected consumption of motor fuel in the United States annually by the year 2010. The Energy Conservation and Reauthorization Act of 1998 amended EPAct 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 EPAct requirements. The head of each Federal agency must also prepare and submit a report to Congress outlining the agency's AFV acquisitions and future plans by February 15th of each year, as amended in 2005. Executive Order (E.O.) 13423 requires that agency heads ensure that fleets of 20 or more motor vehicles, relative to the 2005 baseline, (i) reduce the fleet's total consumption of petroleum products by 2 percent annually through the end of fiscal year 2015, (ii) increase the total fuel consumption that is non-petroleum-based by 10 percent annually, and (iii) use plug-in hybrid (PIH) vehicles when PIH vehicles are commercially available at a cost reasonably comparable, on the basis of life-cycle cost, to non-PIH vehicles.

E.O. 13514 extends the 2% fuel reduction in E.O. 13423 to 2020 and also requires using low greenhouse gas emitting vehicles including alternative fuel vehicles and optimizing the number of vehicles in the agency fleet.

U.S. Navy Approach to Compliance with EPAct, E.O. 13423 and E.O. 13514

To achieve compliance with the legislative mandates of EPAct, E.O. 134232 and E.O. 13514, Navy will continue to acquire as many AFVs as possible consistent with model availability from vehicle manufacturers. Also, where alternative fuel infrastructure is available for AFVs, Navy will use alternative fuel in these vehicles a majority of the time. Where those fuels are not available, the Navy will work with Defense Logistics Agency, Navy Exchange, and industry partners toward establishing this fueling infrastructure. It will also continue to acquire light duty vehicles with a higher fuel economy, and further reduce petroleum consumption by using biodiesel fuel in as many of its diesel vehicles as possible consistent with mission requirements. The Navy continues to investigate advanced vehicle technologies and innovative transportation programs in order to reduce petroleum consumption.

U.S. Navy Fleet Compliance for FY 2009

Figure 1 is a graphical depiction of AFV acquisitions by Navy's fleet in fiscal year 2009 and projections for FY 2010, FY 2011 and FY 2012. Navy documented a requirement of 2,315 covered[1] light-duty vehicle (LDVs) acquisitions, but acquired a total number of 2,649 AFVs during fiscal year 2009. Navy also gained 108 biodiesel credits, for a total of 2,757 AFVs with credits (89% of covered acquisitions) thereby exceeding the EPAct requirement of 75% percent. Appendix A provides detailed information on the number and types of light-duty vehicles leased or purchased by Navy fleets in FY 2009.

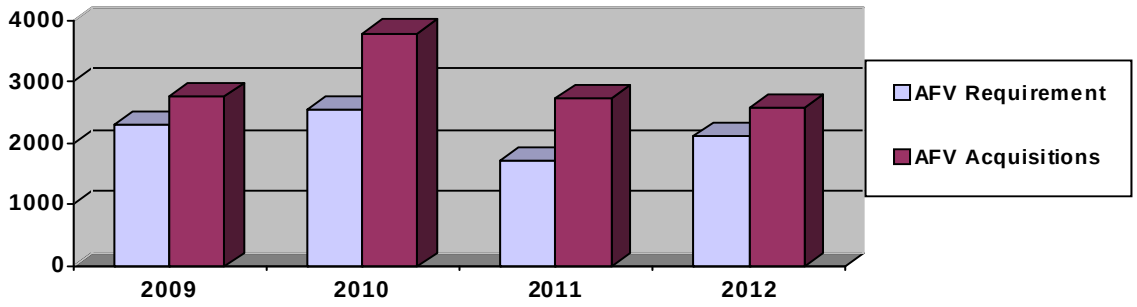

Figure 1. Navy's FY 2009-2012 AFV Acquisitions Versus Requirement

Additional vehicles were leased and purchased by the Navy that were not covered[1] vehicles. Of the total of 4,076 LDVs acquired in FY 2009, the following were not counted for compliance:

- 493 were in domestic fleets located outside covered metropolitan statistical areas (MSAs) or because they were in fleets of less than 20 vehicles and not centrally fueled.
- 274 were exempt as vehicle purchased for use in foreign countries
- 223 were exempt as law enforcement vehicles.

[1] Covered refers to vehicle acquisitions subject to the Energy Policy Act (EPAct) of 1992.

Special Projects of the Navy Fleet Related to AFV and Infrastructure Acquisitions

Special projects to install AFV fueling infrastructure are underway at several activities. Recent endeavors have centered on biodiesel and ethanol fueling infrastructure. A number of fleets have been using biodiesel blends (i.e., B20) in medium and heavy vehicles for several years, in accordance with Commander Naval Installations Command guidance. Newer station initiatives include E-85 fueling infrastructure. Both the B20 and E-85 projects include partnerships with the Navy Exchange, which has fully supported the transition to these alternative fuels. The NEX stations allow all parties with access to the base to purchase alternative fuels.

New and on-going infrastructure projects include efforts at five (5) locations. NAVFAC Northwest has installed a new E-85 and B-20 station at NBK Bremerton, WA, and E-85 at Naval Air Station Whidbey Island, WA (Figures 1 and 2). The Whidbey station is a partnership with the Navy Exchange, and the fuel is available to commercial and private parties with access to the station. Near term initiatives include plans for B20 at three sites in NAVFAC Hawaii.

Figure 1. E85 at Navy Exchange at Whidbey Island, WA

The Navy has launched a new demonstration project to validate whether biodiesel can be used in alternative applications. This multi-service project is investigating the use of biodiesel in ground tactical vehicles and equipment operating at domestic installations. Results from this study will determine whether certain fuel management procedures and technologies can assure the quality of biodiesel in these alternative applications. Procedures developed from this demonstration will also lead to improved quality control procedures and better performing biodiesel currently used in non-tactical vehicles.

Figure 2. NBK Bremerton E-85 government fueling station.

E-85 fueling infrastructure to supply flexible fuel vehicles has emerged at a slower rate than biodiesel fuel. The slower rate is due to the requirement for special corrosion resistant materials for the tank components, fuel lines, dispensers, and vapor recovery equipment. There is a lack of available ethanol approved equipment that has been rigorously certified. Specific certification hurdles have included approvals by the State of California and Underwriters Laboratories (UL) Inc. The industry is still awaiting UL approved dispensers and fueling equipment for E-85. The hurdles delayed several ethanol fueling projects. Navy sites in the Midwest have had greater success and fewer regulatory hurdles. For example, Naval Station Great Lakes has been using E-85 since FY 2001.

Many fleets have instituted on-base fueling for AFVs despite the non-availability of special funding for the infrastructure. Fleets listed in Table 1 include Navy regional fleets with AFVs in their inventory and which have AFV fueling infrastructure. Other Navy installations are partnering with local communities for AFV fueling or are acquiring flex-fuel vehicles with plans to locate necessary alternate fueling infrastructure in the future. E85 vehicles are the most common new AFV configuration, with very limited availability of other alternative fuel models. Although a few sites are moving ahead with new projects as mentioned above, E85 fueling infrastructure is available in relatively few locations. Due to the material and certification requirements, installation of new above ground tanks (rather than conversion of existing gasoline tanks) is the primary option being pursued by the Navy. Fleets in California are moving ahead with plans to install E85 infrastructure based on the State's vapor recovery guidance. As shown by Table 1, fleets in the Mid-Atlantic, Mid-West, Northwest, and Southwest currently have E-85 infrastructure at a few sites within their respective Regions.

Table 1. Sampling of Navy Fleets with AFV Refueling Infrastructure in FY 2009

Navy Fleet	No. AFVs in Inventory	AFV Acquisitions in FY 2009	On-Site AFV Refueling (Type)
NAVFAC SOUTHWEST, San Diego, CA	**2033**	**280**	**B20/CNG/E85**
NAVFAC MIDLANT, Norfolk, VA	**2591**	**381**	**B20/CNG/E85**
NAVFAC MIDWEST, Great Lakes, IL	**726**	**236**	**B20/CNG/E85**
NAVFAC WASHINGTON, Washington, DC	**707**	**20**	**B20/CNG**
NAVFAC SOUTHEAST, Jacksonville, FL	**1396**	**345**	**B20**
NAVFAC NORTHWEST, Silverdale, WA	**547**	**116**	**B20/E85**

Navy is also pursuing non-conventional approaches in order to improve transportation efficiency. Neighborhood electric vehicles, for example, reduce petroleum consumption, tailpipe emissions, and transportation costs. The Navy continues to purchase neighborhood electric vehicles for sites throughout the Navy. Full size electric vehicles are also of interest but are not yet readily available from the manufacturers and GSA.

Navy is replacing conventional vehicles with those that operate on hybrid electric systems for improved fuel efficiency. Annual replacements have been limited by higher costs and limited model availability. While the majority of these purchases have included light duty vehicles, Navy has also recently embarked on a demonstration project with the other services to evaluate emerging medium and heavy diesel hybrids over the next two years.

Another pilot study has begun to see if the conventional fleet size can be further optimized through the use of automated (web-based) reservations, geographic tracking equipment, and keyless entry systems. An initial launch is underway at NAVSTA Norfolk, and another site is being considered for a similar technology at NAVSTA San Diego. If study results prove an overall transportation cost savings large scale implementation will allow reinvestment toward more advanced technology vehicles.

Alternative Fuel Use by Navy Fleets in FY 2009

Table 2 presents fuel use data for the Navy in FY 2009. The majority of fuel use by Navy installations is either acquired from on-base fuel facilities or from commercial gas stations using a commercial credit card. In 2009, fuel product codes were still not established and standardized among the fuel suppliers for alternative fuels (e.g., ethanol or E-85). For this reason, the reported E-85 usage for 2009 represents primarily on-base consumption from government or Navy Exchange fueling facilities. For this reason, the reported alternative fuel use is conservatively lower than the actual use. GSA and the fuel suppliers have made some progress in standardizing these fuel codes and GSA is now tracking some alternative fuel use through credit card purchases. Although limited data is available, additional time is required to validate the accuracy of the aggregate usage quantities as reported. A significant amount of Navy fuel use is for recruiting vehicles, based in large and small cities throughout the U.S., often operating in sparsely populated areas. These vehicles rely exclusively on the commercial marketplace for fuel and the commercial sector has not yet invested in AFV fueling infrastructure, except in a very few locations. The inability to use alternative fuel in these locations will continue to challenge the goal of fueling all AFVs with alternative fuel.

Table 2. Navy Fuel Use in FY 2009

Fuel Type	Quantity Used (Gasoline Gallon Equivalent) [(a)]
Biodiesel – B20	169,198
CNG	67,795
Diesel	1,285,644
E-85	226,126
Gasoline	7,608,331
Propane	0

[(a)] Gasoline Gallon Equivalent is the energy equivalency of 1 gallon of gasoline.

Navy's Fleet AFV Acquisitions for FY 2010, FY 2011 and FY 2012

Appendices B, C and D provide detailed information on projected Navy vehicle acquisitions for FY 2010, FY 2011 and FY 2012 respectively. Original equipment vehicles that operate on alternative fuel are currently limited to flexible fuel E-85. The light duty manufacturers have discontinued production of compressed natural gas (CNG) vehicles. Introduction of competitively priced plug-in hybrids will provide new acquisition opportunities, though this is still a few years into the future.

E85 model availability from the vehicle manufacturers has improved in recent years, though is still not optimal as of FY 2009. The improved AFV product availability and the Navy's commitment to purchase the AFV configuration have lessened the overall importance of biodiesel credits in complying with the EPAct 75% goal. Availability has in certain cases been limited to mid-size and full-size vehicles. This situation is counterproductive to fuel efficiency goals. With determination to comply with the EPACT goals and purchase the AFV model, a vehicle order may be switched to the next larger model if the desired size model is not E-85 capable. The Navy would be best served with broad availability of E-85 capable vehicles in compact and other fuel efficient configurations. Availability of full hybrid electric vehicles that operate on alternative fuel would also go along way toward improving petroleum fuel efficiency.

Petroleum Savings and Alternative Fuel Increases

Appendix E provides petroleum baseline fuel consumption data for FY 2005 and usage for FY 2006 through FY 2009 (copied from FAST). The Navy has been successful in exceeding the target 2% annual reduction in petroleum use reduction through FY 2009. Most of the efficiencies gained to date are, for the most part, due to fleet inventory reductions and have reached their threshold limit. Further reductions in petroleum use will require more fuel efficient vehicles and greater alternative fuel use.

The Navy fell short of the accelerated alternative fuel use objective in EO 13423 (i.e., 10 percent annual increase relative to the FY 2005 baseline). As discussed above, Navy is addressing this shortfall with the introduction of new infrastructure. The B20 and E-85 infrastructure initiatives discussed above, as well as the availability of plug-in hybrid electric vehicles will increase alternative fuel consumption in accordance with this objective.

Summary

As detailed in this report and the attachments, Navy was able to meet the AFV acquisition requirements of EPAct in FY 2009. Continued compliance is also anticipated for FY 2010, FY 2011 and FY 2012. The Navy also met the petroleum reduction objectives in EO 13423. Infrastructure projects are underway to help achieve the 10 percent annual increase in alternative fuel use required by EO 13423.

Appendix A

2009 AFV Report: Actual Data (FY2009)

1. Actual Light-Duty Vehicle Acquisitions and Exemptions				
	Acquisitions			
	Leased	Purchased	Total	
Total Light-Duty Vehicle Acquisitions	2,887	1,189	4,076	
Fleet Exemptions: Fleet Size	0	0	0	
Fleet Exemptions: Foreign	66	208	274	
Fleet Exemptions: Geographic	0	0	0	
Fleet Exemptions: Non-MSA Operation	0	0	0	
Vehicle Exemptions: LE Vehicle	213	10	223	
Vehicle Exemptions: Non-MSA Operation	301	192	493	
Total EPAct-Covered Vehicles	2,307	779	3,086	

2. Actual Alternative Fuel Vehicle Acquisition Detail						
			Acquisitions			EPAct
Vehicle Type	Fuel	LE	Lease	Purchase	Total	Credits
Light Duty Vehicles						
Sedan/St Wgn Compact	E85 FF	No	921	5	926	926
Sedan/St Wgn Compact	E85 FF	Yes	1	0	1	1
Sedan/St Wgn Compact	GAS HY[3]	No	5	23	28	28
Sedan/St Wgn Compact	GAS HY[3]	Yes	1	0	1	1
Sedan/St Wgn Large	E85 FF	Yes	2	0	2	2
Sedan/St Wgn Midsize	E85 FF	No	45	1	46	46
Sedan/St Wgn Midsize	E85 FF	Yes	49	0	49	49
Sedan/St Wgn Midsize	GAS HY[3]	Yes	21	0	21	21
Sedan/St Wgn Subcompact	E85 FF	No	16	0	16	16
LD Minivan 4x2 (Cargo)	E85 FF	No	10	0	10	10
LD Minivan 4x2 (Passenger)	E85 FF	No	228	90	318	318
LD Minivan 4x2 (Passenger)	E85 FF	Yes	1	1	2	2
LD Pickup 4x2	CNG BI	No	5	0	5	5
LD Pickup 4x2	E85 FF	No	128	317	445	445
LD Pickup 4x2	E85 FF	Yes	2	7	9	9
LD SUV 4x2	E85 FF	No	91	39	130	130
LD SUV 4x2	E85 FF	Yes	15	0	15	15
LD SUV 4x2	GAS HY[3]	No	0	116	116	116
LD SUV 4x2	GAS HY[3]	Yes	9	0	9	9
LD Van 4x2 (Cargo)	E85 FF	No	22	26	48	48
LD Van 4x2 (Passenger)	E85 FF	No	157	2	159	159
LD Van 4x2 (Passenger)	E85 FF	Yes	1	0	1	1
LD Pickup 4x4	E85 FF	No	19	12	31	31
LD Pickup 4x4	E85 FF	Yes	3	0	3	3
LD SUV 4x4	E85 FF	No	44	1	45	45
LD SUV 4x4	E85 FF	Yes	23	0	23	23

LD SUV 4x4	GAS HY[3]	Yes	6	0	6	6
LD Van 4x4 (Cargo)	E85 FF	No	2	0	2	2
LD Van 4x4 (Passenger)	E85 FF	No	2	0	2	2
Medium Duty Vehicles						
Ambulance	E85 FF	No	1	0	1	1
MD Other	E85 FF	No	19	33	52	52
MD Pickup	E85 FF	No	14	2	16	16
MD Pickup	E85 FF	Yes	1	0	1	1
MD SUV	E85 FF	No	2	1	3	3
MD Van (Cargo)	CNG BI	No	1	0	1	1
MD Van (Cargo)	E85 FF	No	30	31	61	61
MD Van (Passenger)	E85 FF	No	44	0	44	44
Heavy Duty Vehicles						
HD	CNG BI	No	0	1	1	1
Totals:			1,941	708	2,649	2,649

3. Actual EPAct Acquisition Credits Summary	
Base AFV Acquisition Credits:	2,649
Zero Emission Vehicle (ZEV) Credits:	0
Dedicated Light Duty AFV Credits:	0
Dedicated Medium Duty AFV Credits:	0
Dedicated Heavy Duty AFV Credits:	0
Law Enforcement or Emergency/Emergency Response Vehicle Credits: [1]	143
Biodiesel Fuel Usage Credits:[4]	108
Total EPAct Credits:	2,757
Overall EPAct Compliance Percentage:	89 %
Total EPAct Credits excluding LE & E/ER Credits:	2,614
EPAct Compliance Percentage excluding LE & E/ER Credits:	85 %

Appendix B

2009 AFV Report: Planned Data (FY2010)

1. Planned Light-Duty Vehicle Acquisitions and Exemptions

	Acquisitions			
	Leased	Purchased	Total	
Total Light-Duty Vehicle Acquisitions	3,497	1,822	5,319	
Fleet Exemptions: Fleet Size	0	0	0	
Fleet Exemptions: Foreign	91	263	354	
Fleet Exemptions: Geographic	0	0	0	
Fleet Exemptions: Non-MSA Operation	0	0	0	
Vehicle Exemptions: LE Vehicle	521	28	549	
Vehicle Exemptions: Non-MSA Operation	757	254	1,011	
Total EPAct-Covered Vehicles	2,128	1,277	3,405	

2. Planned Alternative Fuel Vehicle Acquisition Detail

Vehicle Type	Fuel	LE	Acquisitions			EPAct Credits
			Lease	Purchase	Total	
Light Duty Vehicles						
Sedan/St Wgn Compact	CNG BI	No	0	1	1	1
Sedan/St Wgn Compact	E85 FF	No	708	17	725	725
Sedan/St Wgn Midsize	E85 FF	No	1,171	62	1,233	1,233
Sedan/St Wgn Midsize	E85 FF	Yes	20	1	21	0
Sedan/St Wgn Midsize	GAS HY[3]	Yes	25	0	25	0
LD Minivan 4x2 (Cargo)	E85 FF	No	32	0	32	32
LD Minivan 4x2 (Passenger)	E85 FF	No	154	78	232	232
LD Minivan 4x2 (Passenger)	E85 FF	Yes	15	1	16	0
LD Pickup 4x2	CNG BI	No	12	84	96	96
LD Pickup 4x2	CNG DE	No	0	8	8	8
LD Pickup 4x2	E85 FF	No	254	507	761	761
LD Pickup 4x2	E85 FF	Yes	0	3	3	0
LD Pickup 4x2	GAS HY[3]	No	0	1	1	1
LD SUV 4x2	E85 FF	No	6	22	28	28
LD SUV 4x2	E85 FF	Yes	1	0	1	0
LD Van 4x2 (Cargo)	CNG BI	No	0	3	3	3
LD Van 4x2 (Cargo)	CNG DE	No	0	1	1	1
LD Van 4x2 (Cargo)	E85 FF	No	0	3	3	3
LD Van 4x2 (Passenger)	CNG BI	No	1	0	1	1
LD Van 4x2 (Passenger)	CNG DE	No	0	2	2	2
LD Van 4x2 (Passenger)	E85 FF	No	36	158	194	194
LD Van 4x2 (Passenger)	E85 FF	Yes	2	4	6	0
LD Minivan 4x4 (Passenger)	E85 FF	No	2	0	2	2
LD Pickup 4x4	CNG BI	No	2	3	5	5

LD Pickup 4x4	E85 FF	No	23	49	72	72
LD Pickup 4x4	E85 FF	Yes	7	4	11	0
LD Pickup 4x4	GAS HY[3]	No	0	2	2	2
LD SUV 4x4	E85 FF	No	67	15	82	82
LD SUV 4x4	E85 FF	Yes	134	3	137	0
Medium Duty Vehicles						
Bus	CNG DE	No	0	2	2	2
Bus	DSL HY[3]	No	0	8	8	8
MD Other	CNG BI	No	0	4	4	4
MD Other	E85 FF	No	6	0	6	6
MD Pickup	CNG BI	No	0	1	1	1
MD Pickup	E85 FF	No	37	0	37	37
MD Van (Cargo)	CNG BI	No	0	4	4	4
MD Van (Cargo)	CNG DE	No	0	2	2	2
MD Van (Cargo)	E85 FF	No	10	12	22	22
MD Van (Passenger)	E85 FF	No	36	0	36	36
Heavy Duty Vehicles						
HD	CNG BI	No	0	12	12	12
Totals:			2,761	1,077	3,838	3,618

3. Planned EPAct Acquisition Credits Summary	
Base AFV Acquisition Credits:	3,618
Zero Emission Vehicle (ZEV) Credits:	0
Dedicated Light Duty AFV Credits:	11
Dedicated Medium Duty AFV Credits:	8
Dedicated Heavy Duty AFV Credits:	0
Biodiesel Fuel Usage Credits:[4]	161
Total EPAct Credits:	3,798
Overall EPAct Compliance Percentage:	112 %

Appendix C

2009 AFV Report: Projected Data (FY2011)

1. Projected Light-Duty Vehicle Acquisitions and Exemptions				
	Acquisitions			
	Leased	Purchased	Total	
Total Light-Duty Vehicle Acquisitions	2,714	358	3,072	
Fleet Exemptions: Fleet Size	0	0	0	
Fleet Exemptions: Foreign	58	127	185	
Fleet Exemptions: Geographic	0	0	0	
Fleet Exemptions: Non-MSA Operation	0	0	0	
Vehicle Exemptions: LE Vehicle	90	14	104	
Vehicle Exemptions: Non-MSA Operation	483	21	504	
Total EPAct-Covered Vehicles	2,083	196	2,279	

2. Projected Alternative Fuel Vehicle Acquisition Detail						
			Acquisitions			EPAct
Vehicle Type	Fuel	LE	Lease	Purchase	Total	Credits
Light Duty Vehicles						
Sedan/St Wgn Compact	E85 FF	No	1,010	0	1,010	1,010
Sedan/St Wgn Large	E85 FF	Yes	1	0	1	0
Sedan/St Wgn Midsize	E85 FF	No	768	4	772	772
Sedan/St Wgn Midsize	E85 FF	Yes	11	0	11	0
LD Minivan 4x2 (Cargo)	E85 FF	No	7	0	7	7
LD Minivan 4x2 (Passenger)	E85 FF	No	121	6	127	127
LD Minivan 4x2 (Passenger)	E85 FF	Yes	1	2	3	0
LD Pickup 4x2	CNG BI	No	1	0	1	1
LD Pickup 4x2	E85 FF	No	234	99	333	333
LD Pickup 4x2	E85 FF	Yes	1	2	3	0
LD SUV 4x2	E85 FF	No	9	0	9	9
LD SUV 4x2	E85 FF	Yes	2	0	2	0
LD Van 4x2 (Cargo)	E85 FF	No	37	20	57	57
LD Van 4x2 (Passenger)	E85 FF	No	70	12	82	82
LD Minivan 4x4 (Passenger)	E85 FF	No	2	0	2	2
LD Pickup 4x4	E85 FF	No	23	22	45	45
LD Pickup 4x4	E85 FF	Yes	0	2	2	0
LD SUV 4x4	E85 FF	No	61	1	62	62
LD SUV 4x4	E85 FF	Yes	20	0	20	0
Medium Duty Vehicles						
MD Other	E85 FF	No	11	8	19	19
MD Pickup	E85 FF	No	16	25	41	41
MD Van (Cargo)	CNG	No	3	0	3	3

	BI					
MD Van (Cargo)	E85 FF	No	1	8	9	9
MD Van (Passenger)	E85 FF	No	2	0	2	2
Totals:			2,412	211	2,623	2,581

3. Projected EPAct Acquisition Credits Summary	
Base AFV Acquisition Credits:	2,581
Zero Emission Vehicle (ZEV) Credits:	0
Dedicated Light Duty AFV Credits:	0
Dedicated Medium Duty AFV Credits:	0
Dedicated Heavy Duty AFV Credits:	0
Biodiesel Fuel Usage Credits:[4]	164
Total EPAct Credits:	2,745
Overall EPAct Compliance Percentage:	120 %

Appendix D

2009 AFV Report: Forecast Data (FY2012)

1. Forecast Light-Duty Vehicle Acquisitions and Exemptions				
	Acquisitions			
	Leased	Purchased	Total	
Total Light-Duty Vehicle Acquisitions	2,817	937	3,754	
Fleet Exemptions: Fleet Size	0	0	0	
Fleet Exemptions: Foreign	121	112	233	
Fleet Exemptions: Geographic	0	0	0	
Fleet Exemptions: Non-MSA Operation	0	0	0	
Vehicle Exemptions: LE Vehicle	195	40	235	
Vehicle Exemptions: Non-MSA Operation	397	86	483	
Total EPAct-Covered Vehicles	2,104	699	2,803	

2. Forecast Alternative Fuel Vehicle Acquisition Detail						
			Acquisitions			EPAct
Vehicle Type	Fuel	LE	Lease	Purchase	Total	Credits
Light Duty Vehicles						
Sedan/St Wgn Compact	E85 FF	No	975	0	975	975
Sedan/St Wgn Midsize	E85 FF	No	61	0	61	61
Sedan/St Wgn Midsize	E85 FF	Yes	9	0	9	0
Sedan/St Wgn Midsize	GAS HY[3]	Yes	11	0	11	0
Sedan/St Wgn Subcompact	E85 FF	No	16	0	16	16
LD Minivan 4x2 (Cargo)	E85 FF	No	3	0	3	3
LD Minivan 4x2 (Passenger)	E85 FF	No	148	0	148	148
LD Pickup 4x2	E85 FF	No	160	514	674	674
LD Pickup 4x2	E85 FF	Yes	1	3	4	0
LD Pickup 4x2	GAS HY[3]	No	0	1	1	1
LD SUV 4x2	E85 FF	No	10	0	10	10
LD SUV 4x2	E85 FF	Yes	4	0	4	0
LD Van 4x2 (Cargo)	E85 FF	No	14	19	33	33
LD Van 4x2 (Passenger)	E85 FF	No	70	0	70	70
LD Minivan 4x4 (Passenger)	E85 FF	No	1	0	1	1
LD Pickup 4x4	E85 FF	No	33	71	104	104
LD SUV 4x4	E85 FF	No	52	0	52	52
LD SUV 4x4	E85 FF	Yes	7	0	7	0
LD SUV 4x4	GAS HY[3]	Yes	1	0	1	0
Medium Duty Vehicles						
MD Other	CNG DE	No	0	2	2	2
MD Other	E85 FF	No	27	8	35	35
MD Pickup	E85 FF	No	23	163	186	186
MD Pickup	E85 FF	Yes	1	0	1	0
MD SUV	E85 FF	No	1	0	1	1

MD SUV	E85 FF	Yes	1	0	1	0
MD Van (Cargo)	E85 FF	No	5	32	37	37
MD Van (Passenger)	E85 FF	No	12	0	12	12
Totals:			1,646	813	2,459	2,421

3. Forecast EPAct Acquisition Credits Summary	
Base AFV Acquisition Credits:	2,421
Zero Emission Vehicle (ZEV) Credits:	0
Dedicated Light Duty AFV Credits:	0
Dedicated Medium Duty AFV Credits:	4
Dedicated Heavy Duty AFV Credits:	0
Biodiesel Fuel Usage Credits:[4]	166
Total EPAct Credits:	2,591
Overall EPAct Compliance Percentage:	92 %

Notes:

1. Highlighted cells show EPAct credits granted for acquisition of law enforcement (LE) and emergency/emergency response (E/ER) vehicles. DOE has determined that credits will not be granted for acquisition of these vehicles beginning with FY 2010 and in all years after FY 2010. FAST users are advised to carefully review the role any such credits are playing in overall compliance with EPAct's acquisition requirements for their organization(s).

2. For data presented above representing years prior to 2010, hypothetical compliance figures are shown that exclude any LE and/or E/ER acquisition credits to help FAST users quantify the extent to which those credits factor into the organization's compliance percentage.

3. For years prior to 2009, EPAct acquisition credits were not granted for acquisition of vehicles with hybrid fuel configurations (e.g., gas-electric hybrid configurations). Beginning with 2009 and continuing forward for all subsequent years, vehicles with these fuel configurations are considered alternative fueled vehicles and corresponding credits are granted and shown, if appropriate, in the above tables.

4. EPAct allows credits toward compliance to be granted for consumption of biodiesel fuel; one (1) credit toward compliance is granted for each 450 gallons of biodiesel consumed, with a maximum of 50% of an organization's credits toward compliance coming from biodiesel consumption.

Appendix E

FY2009 EO 13423 Fuel Consumption Report
Department of Navy

Covered Petroleum Consumption in GGE											
	Baseline										
	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
Gasoline		9,787,513	10,272,471	8,773,447	7,608,331						
Diesel		1,155,200	1,498,895	1,163,748	1,285,644						
B20		387,890	387,014	394,728	169,198						
Total	**13,137,073**	**11,330,603**	**12,158,380**	**10,331,923**	**9,063,173**						
Target		12,874,331	12,611,590	12,348,848	12,086,107	11,823,365	11,560,624	11,297,882	11,035,141	10,772,399	10,509,658
Compliant		Yes	Yes	Yes	Yes						

* B20 is the diesel component from covered biodiesel consumption.

Alternative Fuel Consumption in GGE											
	Baseline										
	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015
CNG		79,870	158,976	56,459	67,795						
LNG		0	0	0	0						
LPG		6	134	0	0						
E-85		0	201,011	165,836	226,126						
Electric		0	0	0	0						
M-85		0	0	0	0						

B100		96,973	96,820	114,184	54,641						
Hydrogen		0	0	0	0						
Total	**412,288**	**176,849**	**456,941**	**336,479**	**348,562**						
Target		453,516	498,868	548,755	603,630	663,993	730,393	803,432	883,775	972,153	1,069,368
Compliant		**No**	**No**	**No**	**No**						

*B100 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.