

Department of Veterans Affairs

Annual Vehicle Fleet Report on Alternative Fuel Vehicles

FY 2018

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I. Introduction

The Department of Veterans Affairs (VA) submits this report on progress towards achieving goals of the Energy Policy Act (EPAct) of 1992 and 2005. VA met the alternative fuel vehicles (AFV) acquisition and alternative fuel use requirements for the 13th year in a row. VA continues to acquire AFVs and use alternative fuels where possible.

VA uses its Fleet Management Plan to address the ongoing challenge of acquisition and use of AFVs through education. Central Office fleet personnel conduct in-person and on-line training, and a full complement of on-demand training, including vehicle acquisitions, operations, and reporting.

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

II. Compliance with AFV Acquisition Requirements

EPAct 1992 requires covered Federal agencies to ensure that at least 75 percent of their relevant annual vehicle acquisitions are AFVs. The Department of Energy (DOE) is responsible for determining which Federal agencies are subject to this legislation based on the respective size of each agency's motor vehicle fleets and location of their vehicles relative to metropolitan statistical areas (MSAs). EPAct 1992 also directs agencies to publish information about their compliance with this acquisition requirement by the end of February each year.

In FY 2018, the total number of AFVs that VA acquired met the 75 percent EPAct 1992 requirement (see Attachment A for details).

Specifically, VA:

- Acquired 2,658 EPAct-covered vehicles of which 1,963 were AFVs;
- Received an additional 22 credits through the use of biodiesel; and
- Earned a total of 1,985 EPAct credits.

<u>Credits</u>. Federal fleets earn one credit for every bi- or flexible-fuel AFV acquired. Additional credits are earned for using B100 (100 percent biodiesel) or B20 (20 percent biodiesel/80 percent petroleum diesel), as well as for AFVs that operate exclusively on alternative fuel, or are zero emission vehicles.

<u>Vehicles</u>. Flexible-fuel vehicles (FFVs) with the capability to run on E85 (85 percent ethanol/15 percent gasoline) or gasoline were the AFV of choice in FY 2018. Of the 1,963 AFVs that VA acquired in FY 2018, 855 were E85 FFVs. Most of the remaining

vehicles were gasoline vehicles qualifying as low greenhouse gas vehicles and gasoline hybrids, although VA also acquired three electric vehicles and 37 plug-in hybrids.¹

<u>Exemptions</u>. Of the 2,847 light duty vehicles that VA acquired in FY 2018, 189 were considered exempt from compliance with EPAct. Exemptions are, in general, granted for fleet size, geographic location, use outside of an MSA, and use for law enforcement or as emergency/emergency response vehicles. The details of VA's vehicle exemptions may be found in Attachment A, Table A1.

In FY 2018, VA earned 1,963 AFV acquisition credits. With the additional credits for biodiesel use, this translates to 75 percent of covered vehicle acquisitions. This meets the EPAct acquisition requirement of 75 percent.

VA fully anticipates meeting the AFV acquisition requirement in future years. Attachments B and C offer a detailed look at VA's FY 2019 planned acquisitions and FY 2020 projected acquisitions. Initial projections for FY 2019 and FY 2020 indicate that VA will exceed the AFV acquisition requirements in both years.

III. Compliance with Alternative Fuel Use in AFVs

EPAct 2005 Section 701 requires that Federal agencies with alternative fuel-capable vehicles must use alternative fuel when possible. Under Section 701, Federal agencies must request waivers from DOE through the General Services Administration's Federal Automotive Statistical Tool (FAST) for any alternative fuel-capable vehicles subject to the EPAct 1992 acquisition requirements that do not have access to alternative fuels or for which such fuel is unreasonably expensive.

VA requested and received waivers for 2,268 vehicles due to E85 fuel not being available within a reasonable distance. DOE defines reasonable distance as five miles or 15 minutes from the vehicle's garaged location.

Wherever possible, VA vehicles are using local fueling stations that offer alternative fuels. VA has 58 operating E85 fueling stations at VA medical centers. VA is now focusing on placing electric vehicles (including plug-in hybrids) at sites where other alternative fuels are not available.

In addition to traditional AFVs, VA has also acquired electric and gasoline hybrid vehicles.

The table below presents fuel type details on FY 2017 and FY 2018 fuel data.

¹ Gasoline Hybrid – uses power such as an internal combustion engine to drive an electric generator that powers an electric motor. Electric – electric motor used for propulsion. Plug-In Hybrid – a hybrid electric vehicle whose battery can be recharged by plugging it into an external source of electric power as well by its on-board engine or generator.

	FY 2017	FY 2018
	Gasoline Gallon	Equivalent (GGE)
Total Alternative Fuel Use	1,029,862	1,069,652
Total Covered Petroleum Use**	7,873,818	8,894,607
Total Fuel Use	8,903,680	9,964,259
% Alternative Fuel Use	11.6%	10.7%

VA FY 2017* and FY 2018 Fuel Use Data

*Note: Due to challenges associated with changes to interagency reporting requirements, FY 2017 data is less reliable than previous or current year data.

**Limited to domestic vehicles, less law enforcement, emergency/emergency response and armored vehicles

VA alternative fuel use increased slightly in volume, though declined slightly as a percentage of total fuel use due to increased petroleum use. VA continues to maintain a high percentage of alternative fuel use across its fleet. In FY 2018, alternative fuel comprised 10.7 percent of total VA vehicle fuel use. VA covered petroleum use increased substantially compared to FY 2017.

IV. Summary and Conclusions

In FY 2018, VA satisfied the alternative fuel vehicle acquisition and alternative fuel use requirements of the Energy Policy Acts of 1992 and 2005.

<u>Future Performance</u>. VA's plan for future improvements features installation of electric vehicle charging systems, expansion of training for fleet managers, and use of annual utilization reports to help right size the fleet while meeting agency mission and goals. VA will continue to acquire all types of AFVs in an attempt to meet requirements. VA also plans to increase the number of electric vehicles in its fleet.

ATTACHMENTA

FY 2018 Actual VA Vehicle Acquisitions

Attachment A includes the following tables:

- A1. 2018 Actual Light-Duty Vehicle Acquisitions and Exemptions
- A2. 2018 Actual Alternative Fuel Vehicle Acquisition Detail
- A3. 2018 Actual EPAct Acquisition Credits Summary

Table A1. Actual Light-Duty Vehicle Acquisitions and Exemptions

	Acquisitions			
	Leased	Purchased	Total	
Total Light-Duty Vehicle Acquisitions	2,729	118	2,847	
Exemption: Fleet Size	0	0	0	
Exemption: Foreign	0	0	0	
Exemption: Geographic	61	3	64	
Exemption: LE Vehicle	110	4	114	
Exemption: Non-covered Vehicle	0	2	2	
Exemption: Non-MSA Operation	9	0	9	
Total EPAct-Covered Vehicles	2,549	109	2,658	

Abbreviations/terminology used in tables:

4x2 = Two-wheel drive

4x4 = Four-wheel drive

AF = Alternative Fuel: Non-traditional vehicle fuel such as natural gas, bio-fuels, and electricity

AFV = Alternative Fuel Vehicle: Vehicle that operates on an alternative fuel

BI = Bi-fuel: Two separate, but parallel, fuel systems; these fuels never mix

CNG = Compressed Natural Gas: Natural gas compressed for storage in a tank

DE = Dedicated: Single fuel type

DSL = Diesel

E85 = E85 fuel: Fuel that is 85% ethanol and 15% gasoline

ELE = Electric: Powered by electricity

EPAct = Energy Policy Act

FF = Flex fuel: Two fuel types used by the same system. These fuels mix in the vehicle tank.

GAS = Gasoline: Gasoline containing less than 85% ethanol.

- HD = Heavy duty
- HY = Hybrid: Vehicle that uses an electric engine for operation under certain conditions, such as low speeds or to supplement a fuel powered engine
- LD = Light duty

LE = Law Enforcement

MD = Medium Duty

- MSA = Metropolitan Statistical Area: Areas defined by EPA
- PH = Plug-in Hybrid: Hybrid vehicle that can be plugged in to external electric charging system.
- SUV = Sport Utility Vehicle: Combination truck and passenger vehicle

ATTACHMENT A - continued

Vahiala Type	Fuel	LE	A	cquisition	IS	EPAct
Vehicle Type	ruei	LĿ	Lease	Purchase	Total	Credits
Light Duty Vehicles			8			
Sedan/St Wgn Compact	GAS DE	No	39	0	39	39
Sedan/St Wgn Compact	GAS HY ³	No	500	0	500	500
Sedan/St Wgn Compact	GAS HY ³	Yes		0	4	0
Sedan/St Wgn Compact	GAS/E85 FF	No	17	0	17	17
Sedan/St Wgn Compact	GAS/E85 FF		1	0	1	0
Sedan/St Wgn Compact	GAS/ELE PH		16	0	16	16
Sedan/St Wgn Large	GAS/E85 FF	No	0	1	1	1
Sedan/St Wgn Midsize	GAS/E85 FF	No	16	2	18	18
Sedan/St Wgn Midsize	GAS/E85 FF	Yes	12	0	12	0
Sedan/St Wgn Subcompact	ELE DE	No	1	0	1	1
Sedan/St Wgn Subcompact	GAS DE	No	214	0	214	214
Sedan/St Wgn Subcompact		Yes	4	0	4	0
Sedan/St Wgn Subcompact	GAS HY ³	No	175	0	175	175
Sedan/St Wgn Subcompact		No	49	0	49	49
Low-speed Vehicle	ELE DE	No	0	2	2	0
LD Minivan 4x2(Cargo)	GAS DE	No	2	0	2	2
LD Minivan 4x2(Cargo)	GAS/E85 FF	No	12	0	12	12
LD Minivan 4x2 (Passenger)		No	9	0	9	9
LD Minivan 4x2 (Passenger)			368	7	375	375
LD Minivan 4x2 (Passenger)		Yes		0	4	0
LD Minivan 4x2 (Passenger)			20	0	20	20
LD Pickup 4x2	GAS/E85 FF		22	0	22	22
LD Pickup 4x2	GAS/E85 FF		2	0	2	0
LD SUV 4x2	GAS DE	No	5	0	5	5
LD SUV 4x2	GAS HY ³	No	18	0	18	18
LD SUV 4x2	GAS/E85 FF	No	40	15	55	55
LD SUV 4x2	GAS/E85 FF	Yes	5	0	5	0
LD Van 4x2 (Cargo)	GAS/E85 FF	No	5	0	5	5
LD Van 4x2 (Passenger)	GAS/E85 FF	No	8	17	25	25
LD Pickup 4x4	GAS/E85 FF	No	18	2	20	20
LD Pickup 4x4	GAS/E85 FF	Yes	2	0		0
LD SUV 4x4	GAS DE	No	99	0	99	99
LD SUV 4x4	GAS DE	Yes	1	0	1	0
LD SUV 4x4	GAS HY ³	No	2	0	2	2
LD SUV 4x4	GAS/E85 FF		113	5	118	118
LD SUV 4x4	GAS/E85 FF		24	4	28	0
LD SUV 4x4	GAS/ELE PH			0	3	3
Medium Duty Vehicles						
MD Bus	CNG DE	No	0	1	1	1
MD Bus	GAS/E85 FF	No	3	1	4	4
MD Other	GAS/E85 FF	No	16	3	19	19
MD Other	GAS/E85 FF	Yes	1	0	1	0

Table A2. Actual Alternative Fuel Vehicle Acquisition Detail

ATTACHMENTA - continued

MD Pickup	GAS/E85 FF	No	15	1	16	15
MD Pickup	GAS/E85 FF	Yes	2	0	2	0
MD Van (Cargo)	GAS/E85 FF	No	19	0	19	19
MD Van (Passenger)	GAS/E85 FF	No	71	10	81	81
MD Van (Passenger)	GAS/LPG BI	No	0	1	1	1
Heavy Duty Vehicles						
HD Bus	DSL HY ³	No	0	2	2	2
HD	DSL HY ³	No	0	1	1	1
Totals:			1,957	75	2,032	1,963

Table A3. Actual EPAct Acquisition Credits Summary

Base AFV Acquisition Credits:	1,963
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 and Renewable Diesel Fuel Usage Credits:	22
Total EPAct Credits:	1,985
Overall EPAct Compliance Percentage:	75 %

ATTACHMENT B

FY 2019 Planned VA Vehicle Acquisitions

Attachment B includes the following tables:

- B1. Planned Light-Duty Vehicle Acquisitions and Exemptions (2019)
- B2. Planned Alternative Fuel Vehicle Acquisition Detail (2019)
- B3. Planned EPAct Acquisition Credits Summary (2019)

Table B1. Planned Light-Duty Vehicle Acquisitions and Exemptions (2019)

	Acquisitions					
	Leased	Leased Purchased Tot				
Total Light-Duty Vehicle Acquisitions	2,157	89	2,246			
Fleet Exemptions: Fleet Size	0	0	0			
Fleet Exemptions: Foreign	0	0	0			
Fleet Exemptions: Geographic	0	0	0			
Vehicle Exemptions: LE Vehicle	111	2	113			
Vehicle Exemptions: Non-covered Vehicle	0	0	0			
Vehicle Exemptions: Non-MSA Operation	0	0	0			
Total EPAct-Covered Vehicles	2,046	87	2,133			

Abbreviations/terminology used in tables:

4x2 = Two-wheel drive

4x4 = Four-wheel drive

AF = Alternative Fuel: Non-traditional vehicle fuel such as natural gas, bio-fuels, and electricity

AFV = Alternative Fuel Vehicle: Vehicle that operates on an alternative fuel

BI = Bi-fuel: Two separate, but parallel, fuel systems; these fuels never mix

CNG = Compressed Natural Gas: Natural gas compressed for storage in a tank

DE = Dedicated: Single fuel type

DSL = Diesel

E85 = E85 fuel: Fuel that is 85% ethanol and 15% gasoline

ELE = Electric: Powered by electricity

EPAct = Energy Policy Act

FF = Flex fuel: Two fuel types used by the same system. These fuels mix in the vehicle tank.

GAS = Gasoline: Gasoline containing less than 85% ethanol.

HD = Heavy duty

- HY = Hybrid: Vehicle that uses an electric engine for operation under certain conditions, such as low speeds or to supplement a fuel powered engine
- LD = Light duty

LE = Law Enforcement

MD = Medium Duty

- MSA = Metropolitan Statistical Area: Areas defined by EPA
- PH = Plug-in Hybrid: Hybrid vehicle that can be plugged in to external electric charging system.
- SUV = Sport Utility Vehicle: Combination truck and passenger vehicle

ATTACHMENT B - continued **Table B2. Planned Alternative Fuel Vehicle Acquisition Detail (2019)**

.				Acquisitions		EPAct
Vehicle Type	Fuel	LE	Lease	Purchase	Total	Credits
Light Duty Vehicles						-
Sedan/St Wgn Compact	GAS HY ³	No	63	8	71	71
Sedan/St Wgn Compact	GAS HY ³	Yes	5	0	5	0
Sedan/St Wgn Compact	GAS/E85 FF	No	236	1	237	237
Sedan/St Wgn Compact	GAS/E85 FF	Yes	4	0	4	0
Sedan/St Wgn Midsize	GAS/E85 FF	No	27	16	43	43
Sedan/St Wgn Midsize	GAS/E85 FF	Yes	33	0	33	0
Sedan/St Wgn Subcompact	CNG DE	No	1	0	1	1
Sedan/St Wgn Subcompact	ELE DE	No	1	0	1	1
Sedan/St Wgn Subcompact	GAS HY ³	No	39	0	39	39
Sedan/St Wgn Subcompact	GAS/E85 FF	No	381	0	381	381
Sedan/St Wgn Subcompact	GAS/E85 FF	Yes	7	0	7	0
Sedan/St Wgn Subcompact	GAS/ELE PH	No	18	0	18	18
LD Minivan 4x2(Cargo)	GAS/E85 FF	No	42	0	42	42
LD Minivan 4x2 (Passenger)	GAS/E85 FF	No	440	10	450	450
LD Minivan 4x2 (Passenger)	GAS/E85 FF	Yes	6	0	6	0
LD Pickup 4x2	GAS HY ³	No	1	0	1	1
LD Pickup 4x2	GAS/E85 FF	No	13	19	32	32
LD Pickup 4x2	GAS/E85 FF	Yes	1	1	2	0
LD SUV 4x2	GAS HY ³	No	8	0	8	8
LD SUV 4x2	GAS/E85 FF	No	51	1	52	52
LD SUV 4x2	GAS/E85 FF	Yes	14	0	14	0
LD Van 4x2 (Cargo)	GAS/E85 FF	No	1	0	1	1
LD Van 4x2 (Passenger)	GAS/E85 FF	No	55	2	57	57
LD Pickup 4x4	GAS/E85 FF	No	1	0	1	1
LD SUV 4x4	GAS HY ³	No	32	0	32	32
LD SUV 4x4	GAS/E85 FF	No	103	5	108	108
LD SUV 4x4	GAS/E85 FF	Yes	20	1	21	0
LD Van 4x4 (Cargo)	GAS/E85 FF	No	1	0	1	1
LD Van 4x4 (Passenger)	GAS/E85 FF	No	5	1	6	6
Medium Duty Vehicles						
MD Bus	GAS/E85 FF	No	0	3	3	3
MD Other	GAS/E85 FF	No	4	0	4	4
MD Pickup	GAS/CNG BI	No	1	0	1	1
MD Pickup	GAS/E85 FF	No	3	0	3	3
MD Van (Cargo)	GAS/E85 FF	No	21	1	22	22
MD Van (Passenger)	GAS/E85 FF	No	52	9	61	61
MD Van (Passenger)	GAS/E85 FF	Yes	2	0	2	0
Totals:			1,692	78	1,770	1,676

Table B3. Planned EPAct Acquisition Credits Summary (2019)

Base AFV Acquisition Credits:	1,676
Zero Emission Vehicle (ZEV) Credits:	0
DEDICATED LightDuty AFV Credits:	0
DEDICATED Medium Duty AFV Credits:	0
DEDICATED Heavy Duty AFV Credits:	0
Biodiesel Fuel Usage Credits:	0
Total EPAct Credits:	1,676
Overall EPAct Compliance Percentage:	79 %

ATTACHMENT C

FY 2020 PROJECTED VA VEHICLE ACQUISITIONS

Attachment C includes the following tables:

- C1. Projected Light-Duty Vehicle Acquisitions and Exemptions (2020)
- C2. Projected Alternative Fuel Vehicle Acquisition Detail (2020)
- C3. Projected EPAct Acquisition Credits Summary (2020)

C1. Projected Light-Duty Vehicle Acquisitions and Exemptions (2020)

	Acquisitions				
	Leased Purchased To				
Total Light-Duty Vehicle Acquisitions	2,560	56	2,616		
Fleet Exemptions: Fleet Size	0	0	0		
Fleet Exemptions: Foreign	0	0	0		
Fleet Exemptions: Geographic	0	0	0		
Vehicle Exemptions: LE Vehicle	144	3	147		
Vehicle Exemptions: Non-covered Vehicle	0	0	0		
Vehicle Exemptions: Non-MSA Operation	0	0	0		
Total EPAct-Covered Vehicles	2,416	53	2,469		

Abbreviations/terminology used in tables:

4x2 = Two-wheel drive

4x4 = Four-wheel drive

AF = Alternative Fuel: Non-traditional vehicle fuel such as natural gas, bio-fuels, and electricity

AFV = Alternative Fuel Vehicle: Vehicle that operates on an alternative fuel

BI = Bi-fuel: Two separate, but parallel, fuel systems; these fuels never mix

CNG = Compressed Natural Gas: Natural gas compressed for storage in a tank

DE = Dedicated: Single fuel type

DSL = Diesel

E85 = E85 fuel: Fuel that is 85% ethanol and 15% gasoline

ELE = Electric: Powered by electricity

EPAct = Energy Policy Act

FF = Flex fuel: Two fuel types used by the same system. These fuels mix in the vehicle tank.

GAS = Gasoline: Gasoline containing less than 85% ethanol.

HD = Heavy duty

- HY = Hybrid: Vehicle that uses an electric engine for operation under certain conditions, such as low speeds or to supplement a fuel powered engine
- LD = Light duty
- LE = Law Enforcement

MD = Medium Duty

MSA = Metropolitan Statistical Area: Areas defined by EPA

PH = Plug-in Hybrid: Hybrid vehicle that can be plugged in to external electric charging system.

SUV = Sport Utility Vehicle: Combination truck and passenger vehicle

ATTACHMENT C - continued

<u>-</u>				Acquisitions			
Vehicle Type	Fuel	LE	Lease	Purchase	Total	Credits	
Light Duty Vehicles							
Sedan/St Wgn Compact	GAS HY ³	No	273	2	275	275	
Sedan/St Wgn Compact	GAS HY ³	Yes	6	0	6	0	
Sedan/St Wgn Compact	GAS/E85 FF	No	285	0	285	285	
Sedan/St Wgn Compact	GAS/E85 FF	Yes	9	0	9	0	
Sedan/St Wgn Midsize	GAS/E85 FF	No	29	4	33	33	
Sedan/St Wgn Midsize	GAS/E85 FF	Yes	30	0	30	0	
Sedan/St Wgn Subcompact	GAS HY ³	No	146	0	146	146	
Sedan/St Wgn Subcompact	GAS/E85 FF	No	346	0	346	346	
Sedan/St Wgn Subcompact	GAS/E85 FF	Yes	3	0	3	0	
Sedan/St Wgn Subcompact	GAS/ELE PH	No	22	0	22	22	
LD Minivan 4x2(Cargo)	GAS/E85 FF	No	23	2	25	25	
LD Minivan 4x2 (Passenger)	GAS/E85 FF	No	534	9	543	543	
LD Minivan 4x2 (Passenger)	GAS/E85 FF	Yes	3	0	3	0	
LD Pickup 4x2	GAS HY ³	Yes	1	0	1	0	
LD Pickup 4x2	GAS/E85 FF	No	47	7	54	54	
LD Pickup 4x2	GAS/E85 FF	Yes	1	0	1	0	
LD SUV 4x2	GAS/E85 FF	No	50	0	50	50	
LD SUV 4x2	GAS/E85 FF	Yes	16	0	16	0	
LD Van 4x2 (Cargo)	GAS/E85 FF	No	16	0	16	16	
LD Van 4x2 (Passenger)	GAS/E85 FF	No	56	1	57	57	
LD Pickup 4x4	GAS/E85 FF	No	25	0	25	25	
LD SUV 4x4	GAS HY ³	No	1	0	1	1	
LD SUV 4x4	GAS/E85 FF	No	140	7	147	147	
LD SUV 4x4	GAS/E85 FF	Yes	38	2	40	0	
LD Van 4x4 (Cargo)	GAS/E85 FF	No	3	0	3	3	
LD Van 4x4 (Passenger)	GAS/E85 FF	No	4	0	4	4	
Medium Duty Vehicles							
MD Other	GAS/E85 FF	No	24	0	24	24	
MD Other	GAS/E85 FF	Yes	1	0	1	0	
MD Pickup	GAS/CNG BI	No	1	0	1	1	
MD Pickup	GAS/E85 FF	No	59	0	59	59	
MD Van (Cargo)	GAS/E85 FF	No	46	0	46	46	
MD Van (Passenger)	GAS/E85 FF	No	100	14	114	114	
MD Van (Passenger)	GAS/E85 FF	Yes	1	0	1	0	
Totals:			2,339	48	2,387	2,276	

Table C2. Projected Alternative Fuel Vehicle Acquisition Detail (2020)

Table C3. Projected EPAct Acquisition Credits Summary (2020)

Base AFV Acquisition Credits:	2,276
Zero Emission Vehicle (ZEV) Credits:	0
DEDICATED LightDuty AFV Credits:	0
DEDICATED Medium Duty AFV Credits:	0
DEDICATED Heavy Duty AFV Credits:	0
Biodiesel Fuel Usage Credits:	0
Total EPAct Credits:	2,276
Overall EPAct Compliance Percentage:	92%