

# **FISCAL YEAR 2018 ALTERNATIVE FUEL VEHICLE ACQUISITION REPORT**

**February 2019**

**United States  
Environmental  
Protection Agency**





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## Legislative Requirements

Congress has established laws regarding federal fleet sustainability that make alternative fuel vehicle (AFV) acquisitions and petroleum consumption reduction a priority for federal agencies. Table 1 summarizes federal fleet requirements for vehicle acquisitions, greenhouse gas (GHG) emissions and fuel consumption.

**Table 1. Summary of Federal Fleet Requirements**

The Energy Policy Act (EPAct) of 1992, as amended by the Energy Conservation Reauthorization Act of 1998, and Section 2862 of the National Defense Authorization Act of 2008	
<ul style="list-style-type: none"> <li>Acquire 75% of light-duty vehicles as AFVs, unless exempted.</li> </ul>	
EPAct of 2005, Section 701	
<ul style="list-style-type: none"> <li>Use alternative fuels to operate dual-fueled vehicles, unless the vehicles qualify for a waiver.</li> </ul>	
Energy Independence and Security Act (EISA) of 2007, Section 141	
<ul style="list-style-type: none"> <li>All light-duty (LD) or medium-duty (MD) passenger vehicle acquisitions must be low GHG vehicles (LGHGVs).</li> </ul>	

## Executive Summary of Compliance

**Table 2. The EPA’s FY 2018 Performance in Meeting Federal Fleet Requirements**

Driver	Performance Measure	FY 2018 Goal/Requirement	EPA FY 2018 Performance
EPAct 1992	AFV Acquisitions	75% of the 85 non-exempt, LD vehicles acquired in FY 2018 (i.e., 64 AFV credits and acquisitions)	Acquired 65 AFVs and AFV credits, or <b>76.5%</b> of non-exempt acquisitions
EISA 2007	LGHGV Acquisitions	100% of non-exempt LD and MD passenger vehicles must be LGHGVs (i.e., 55 of 55 covered vehicles)	Achieved <b>100%</b> LGHGV acquisition rate for non-exempt vehicle acquisitions
EPAct 2005 Section 701	Alternative Fuel Usage	Non-waivered dual-fueled vehicles must use <b>100%</b> alternative fuel (i.e., 80,911 gasoline-gallon-equivalents [GGEs] of fuel)	Consumed 27,021 GGEs of alternative fuel, for a compliance rate of <b>33%</b> .



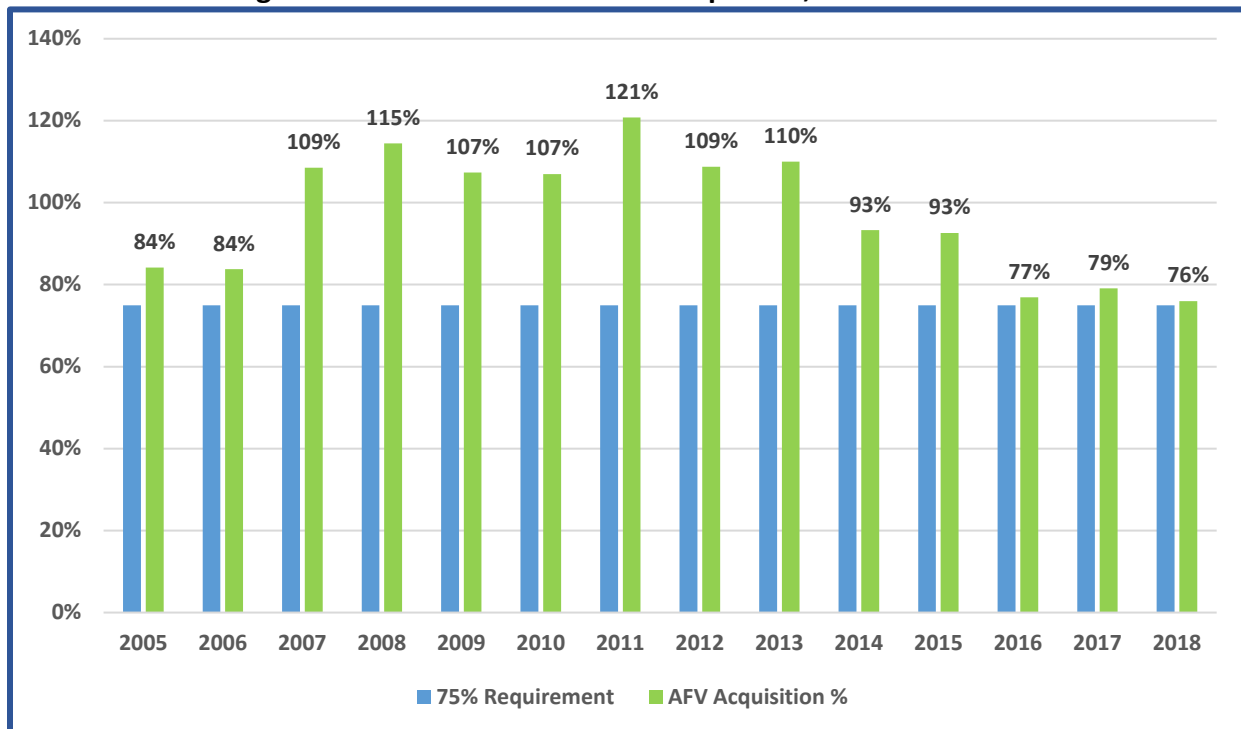
# FY 2018 Compliance With EAct 1992

Table 1. The EPA's FY 2018 Performance in Meeting EAct 1992 Requirements

EAct-Covered Non-Exempt Vehicle Acquisitions	65
AFVs Acquired	85
Additional Credits Earned	0
<b>Total AFVs and Credits (as % of non-exempt acquisitions)</b>	<b>76.5%</b>

The agency achieved 76.5 percent acquisition of AFVs in FY 2018. This meets and exceeds the EAct 1992 requirement of a 75 percent AFV acquisition rate and is consistent with past performance in fiscal years 2005 through 2017. The EPA anticipates meeting EAct 1992 AFV acquisition requirements in FY 2019 as well. See Appendix A for an inventory of FY 2018 AFV acquisitions.

Figure 1. The EPA's EAct 1992 Compliance, FYs 2005-2018<sup>1</sup>



<sup>1</sup> Includes credits for petroleum-dedicated AFVs (also known as LGHGVs) and biodiesel use. Percentages can exceed 100 percent of covered acquisitions when the EPA receives AFV credits for non-covered acquisitions and other events.



## FY 2018 Compliance With EAct 2005 Section 701

Table 4. The EPA's FY 2018 Performance in Meeting EAct 2005 Section 701 Requirements

	E85	Gas/Diesel	Total	Percent Alternative Fuel
Volume in GGEs	27,021	53,890	80,911	33.4%

In FY 2018, non-waivered, dual-fueled EPA vehicles consumed 80,911 total GGEs of fuel. 27,021 GGEs of total consumption was alternative fuel, namely E85, resulting in an alternative fuel consumption rate of 33 percent.

## FY 2018 Compliance With EISA 2007 Section 141

Table 5. The EPA's FY 2018 Performance in Meeting EISA 2007 Section 141 Requirements

Total FY 2018 Subject Acquisitions	135
Total EISA Exempt FY 2018 Acquisitions	80 (out of 135)
Total EISA Non-Exempt FY 2018 Acquisitions	55 (out of 135)
Total EISA Compliant Acquisitions	55 (out of 55)
FY 2018 Compliance Target	100%
FY 2018 Actual Performance	100%

In FY 2018, the EPA acquired 55 vehicles subject to EISA 2007 requirements, and all 55 vehicles were LGHGVs, resulting in an LGHGV acquisition rate of 100 percent and full compliance with EISA 2007. The EPA will continue to monitor all vehicle acquisitions to ensure that EISA acquisition requirements are met.



## FY 2018 AFV to Conventional Vehicle Cost Comparisons

Table 6 provides a sample cost comparison of a common LD vehicle configuration frequently acquired from the General Services Administration (GSA) by the EPA fleet. The GSA offers various fuel types for its vehicle configuration categories, represented by a special item number (SIN). The EPA considers the long-term cost of acquiring AFVs as compared to similar conventionally-fueled vehicles when making fleet acquisitions. All examples are model year 2018.

**Table 6. Cost Comparison of Fuel Types Across Commonly Acquired Vehicle**

<b>4x2 LD Sport Utility Vehicle (SIN 98)</b>			
<b>Fuel Type</b>	<b>Gas Dedicated</b>	<b>Gas/E85 Flex Fuel (FF)</b>	<b>Gas/Electric Hybrid</b>
<b>Make</b>	Chevrolet	Ford	Kia
<b>Model</b>	Equinox	Escape	Niro
<b>Mileage Rate</b>	\$ 0.163	\$ 0.160	\$ 0.160
<b>Monthly Lease Rate</b>	\$ 226	\$ 226	\$ 216
<b>Incremental</b>	\$ -	\$ 56	\$ 3,076
<b>Combined Miles per Gallon</b>	30	18	50
<b>Estimated Annual Mileage</b>	10,000	10,000	10,000
<b>Annual GGE Consumed</b>	333.3	555.6	200.0
<b>Annual Fuel Cost</b>	\$ 1,630	\$ 1,600	\$ 1,600
<b>Annual Lease Cost</b>	\$ 2,712	\$ 2,712	\$ 2,592
<b>5-year Mileage Cost</b>	\$ 8,150	\$ 8,000	\$ 8,000
<b>5-year Lease Cost</b>	\$ 13,560	\$ 13,560	\$ 12,960
<b>Total Cost</b>	\$ 21,710	\$ 21,616	\$ 24,036
<b>Compared to Conventional</b>	<b>N/A</b>	<b>\$ (94.00)</b>	<b>\$ 2,420.00</b>



## Appendix A: FY 2018 EPAAct-Reported Vehicle Acquisitions

LD Vehicle Acquisitions and Exemptions			
	Leased	Purchased	Total
Total LD Vehicle Acquisitions	147	2	149
Fleet Exemptions: Fleet Size	0	0	0
Fleet Exemptions: Foreign	0	0	0
Fleet Exemptions: Geographic	2	2	4
Exemptions: Law Enforcement Vehicle	46	0	46
Exemptions: Non-Covered Vehicle	0	0	0
Exemptions: Non-Metropolitan Statistical Area Operation	14	0	14
<b>Total EPAAct-Covered Vehicles</b>	<b>85</b>	<b>0</b>	<b>85</b>

AFV Acquisition Detail						
Vehicle Type	Fuel	Law Enforcement	Leased	Purchased	Total	EPAAct Credits
<i>LD and MD Vehicles</i>						
Sedan Compact	Gas HY	No	15	0	15	15
Sedan Compact	Gs HY	Yes	2	0	2	0
Sedan Midsize	E85 FF	Yes	2	0	2	0
LD Minivan 4x2 (Passenger)	E85 FF	No	10	0	10	10
LD Minivan 4x2 (Passenger)	Gas/ELE PH	No	3	0	3	3
LD Pickup 4x2	E85 FF	No	1	0	1	1
LD Pickup 4x2	E85 FF	Yes	1	0	1	0
LD SUV 4x2	Gas HY	No	13	0	13	13
LD SUV 4x2	E85 FF	No	1	0	1	1
LD SUV 4x2	E85 FF	Yes	2	0	2	0
LD Pickup 4x4	E85 FF	No	4	0	4	4
LD Pickup 4x4	E85 FF	Yes	3	0	3	0
LD SUV 4x4	Gas HY	No	1	0	1	1
LD SUV 4x4	E85 FF	No	15	0	15	15
LD SUV 4x4	E85 FF	Yes	5	0	5	0
MD Pickup	E85 FF	No	2	0	2	2
<b>Totals:</b>			<b>80</b>	<b>0</b>	<b>80</b>	<b>65</b>

EPAAct Acquisition Credits Summary	
Base AFV Acquisition Credits	65
Zero Emission Vehicle Credits	0
Dedicated LD AFV Credits	0
Dedicated MD AFV Credits	0
Biodiesel Fuel Usage Credits	0
Total EPAAct Credits	65
<b>Overall EPAAct Compliance Percentage</b>	<b>76.5 %</b>



## Appendix B: Acronyms

Acronym	Phrase
AFV	Alternative fuel vehicle
E85	Ethanol (85% ethanol, 15% petroleum)
FF	Flex-fuel
EISA	Energy Independence and Security Act of 2007
ELE PH	Electric plug-in hybrid
ELE DE	Electric dedicated
EPAct	Energy Policy Act
FY	Fiscal year
Gas HY	Gasoline hybrid electric vehicle
GGE	Gasoline gallon equivalent
GHG	Greenhouse Gas
LD/MD/HD	Light-, medium-, or heavy-duty (as determined by gross vehicle weight)
LGHGV	Low greenhouse Gas-emitting vehicle
MSA	Metropolitan statistical area
SUV	Sport utility vehicle