FISCAL YEAR 2016 ALTERNATIVE FUEL VEHICLE ACQUISITION REPORT

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United States Environmental Protection Agency

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Executive Summary

This is the U.S. Environmental Protection Agency's (EPA's) fiscal year (FY) 2016 annual report on the Agency's performance in meeting the environmental stewardship transportation requirements of the Energy Policy Act of 1992 (EPAct 1992), the Energy Independence and Security Act of 2007 (EISA 2007), and Executive Order (EO) 13693. This report was developed in accordance with EPAct 1992 (42 U.S.C. 13211-13219) as amended by the Energy Conservation Reauthorization Act of 1998.

EPAct 1992 requires that in FY 1999 and beyond, 75 percent of all non-exempt vehicle acquisitions by federal agencies must be alternative fuel vehicles (AFVs). EO 13423[1] required federal agencies to increase alternative fuel consumption by 10 percent annually compared to the previous year's alternative fuel usage requirement. EO 13423 also set a goal for federal agencies to reduce petroleum consumption by 2 percent annually relative to a FY 2005 baseline. However, EO 13423 was superseded by EO 13693, which altered the sustainability metrics from a focus on fuels to a focus on greenhouse gas (GHG) reduction. EO 13693 now mandates a progressive reduction of per-mile GHG emissions totaling at least 30 percent by FY 2025, using a FY 2014 baseline. EO 13693 also requires implementation of vehicle telematics systems and acquisition of plug-in hybrid electric vehicles (PHEVs) and zero emission vehicles (ZEVs). Finally, EISA 2007 prohibits the acquisition of vehicles that are not designated as low GHG-emitting vehicles (LGHGVs). Table 1 summarizes the Agency's performance in meeting these requirements.

Table 1. EPA's FY 2016 Performance in Meeting Federal Fleet Requirements

Driver	Performance Measure	FY 2016 Goal/Requirement	EPA FY 2016 Performance
EPAct 1992	AFV Acquisitions	75% of the 91 non-exempt, light-duty vehicles acquired in FY 2015 (i.e., 63 vehicles must be AFVs)	Acquired 70 AFVs, (equaling 70 credits total), or 76.9% of non-exempt acquisitions
EISA 2007	LGHGVs Acquisitions	100% of non-exempt light-duty and medium-duty passenger vehicles must be LGHGVs	Achieved 100% LGHGV acquisition rate for non-exempt vehicle acquisitions
EO 13693	Per-Mile GHG Emissions	2% reduction from the 2014 baseline of 416.89 grams of carbon dioxide equivalent per mile (CO_2e g/mile) (i.e., a target of 408.56 CO_2e g/mile)	Reduced per-mile GHG emissions by 3.79% from FY 2014 baseline, achieving 401.09 CO_2e g/mile

EPA has achieved significant progress towards an energy- and cost-efficient fleet as a result of the Agency's determined and strategic efforts in vehicle acquisitions, operations and communication. EPA has met or exceeded all federal fleet requirements and anticipates even greater strides to be made in the near future.

[1] EO 13423 was revoked by EO 13693 effective March 19, 2015, but EO 13423 compliance in FY 2016 is noted in Appendix E.

Legislative and Executive Order Requirements

Congress and the President have established laws and policies regarding federal fleet sustainability that make GHG emission reductions a priority for federal agencies. Table 2 summarizes federal fleet requirements for vehicle acquisitions, GHG emissions and fuel consumption:

Table 2. Summary of Federal Fleet Requirements

EPAct 1992, as amended by the Energy Conservation Reauthorization Act of 1998, and Section 2862 of the National Defense Authorization Act of 2008
• Acquire 75% of light-duty vehicles as AFVs, unless exempted.
EPAct of 2005, Section
• Use alternative fuels to operate dual-fueled vehicles unless the vehicles qualify for a waiver.
EISA of 2007, Sections 141, 142, and 246
• Prohibit acquisition of light-duty or medium-duty passenger vehicles that are not LGHGVs. • Reduce petroleum consumption by 20% and increase alternative fuel use by 10% by FY 2015 and thereafter.
EO 13423 Strengthening Federal Environmental, Energy, and Transportation Management
• Reduce annual petroleum consumption by at least 2% each year through FY 2015, compared to FY 2005 consumption levels. • Increase annual consumption of alternative fuels by 10% relative to the previous FY alternative fuel target.
EO 13514 Federal Leadership in Environmental, Energy, and Economic Performance
• Reduce greenhouse gas emissions through reduced petroleum consumption. • Reduce annual petroleum consumption by at least 2% each year through FY 2020, compared to FY 2005 consumption levels.
Presidential Memorandum on Federal Fleet Performance (May 24, 2011)[2]
• Acquire only AFVs starting December 31, 2015. • Ensure executive fleet vehicles are midsized sedans or smaller, except where larger sedans are essential to the agency mission. • Establish a vehicle allocation methodology (VAM) to determine the appropriate size and number of vehicles.
EO 13693 Planning for Federal Sustainability in the Next Decade
• Determine optimal fleet inventory and eliminate unnecessary vehicles. • Reduce per-mile GHG emissions by 4% by the end of FY 2017; 15% by the end of FY 2021; and 30% by the end of FY 2025, using FY 2014 baseline. • Deploy telematics in all new light-duty and medium-duty acquisitions by March 19, 2017. • Ensure fleet data is reported in agency fleet database, Federal Automotive Statistical Tool, Federal Motor Vehicle Registration System, and FleetDASH. • Ensure that 20% of new passenger vehicle acquisitions are ZEVs or PHEVs starting calendar year (CY) 2021 and 50% of new passenger vehicle acquisitions are ZEVs or PHEVs starting CY 2026. • Plan for installation of ZEV/PHEV refueling infrastructure and opportunities for vehicle-to-

[2] Revoked by EO 13693.

FY 2016 Compliance With EPAct 1992

EPA has exceeded EPAct 1992 acquisition requirements each year since FY 1999, and the Agency projects this trend to continue. As summarized in Table 3, in FY 2016 the Agency acquired 70 AFVs, earning 70 EPAct credits to count as a percentage of the 91 subject vehicle acquisitions.

Table 3. EPA's FY 2016 Performance in Meeting EPAct Requirements

EPAct-covered non-exempt vehicle acquisitions	91
AFVs acquired	70
Additional credits earned	0
Total AFVs and credits (as % of non-exempt acquisitions)	**76.9%**

The Agency achieved 76.9 percent acquisition of AFVs in FY 2016. This meets and exceeds the EPAct 1992 requirement of a 75 percent AFV acquisition rate, and is consistent with past performance in FYs 2005 through 2015. EPA anticipates exceeding EPAct 1992 AFV acquisition requirements through FY 2019.

Figure 1 depicts EPA AFV acquisitions from FY 2005 through FY 2016 and forecasts acquisitions for FY 2017 through FY 2019. Appendix A provides information on the number and types of light-duty vehicles acquired by the agency.

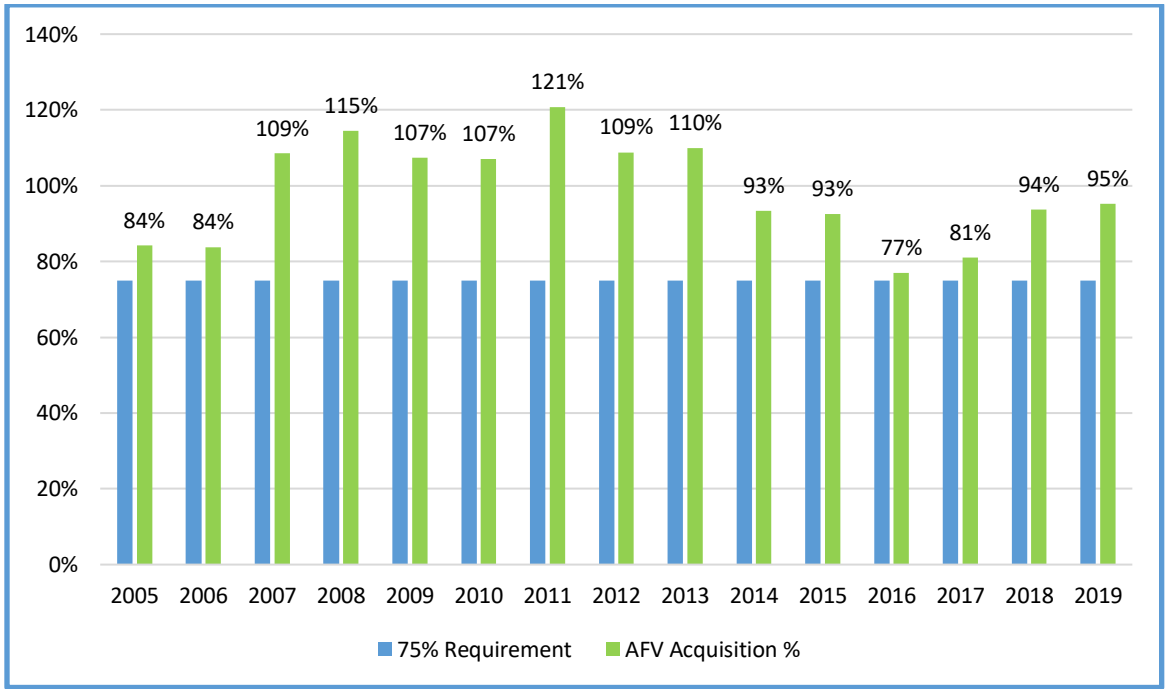

Figure 1. EPA's EPAct 1992 Actual and Projected Compliance, FY 2005-2019[3]

[3] Includes credits for dedicated AFVs and biodiesel use.

FY 2016 Compliance With EISA 2007

Federal fleets are prohibited by EISA 2007, Section 141, from acquiring light-duty and medium-duty passenger vehicles that are not designated as LGHGVs. These are vehicles with GHG emissions that fall below specified thresholds based on vehicle and fuel type, as determined by EPA's Office of Transportation and Air Quality. An exemption to this mandate can be granted if no LGHGV is available that meets the vehicle's functional need. Table 4 below details EPA's performance toward EISA 2007 vehicle acquisition goals.

Table 4. EPA's FY 2016 Performance in Meeting EISA 2007 Requirements

Total FY 2016 Subject Acquisitions	120
Total EISA Exempt FY 2016 Acquisitions	89 (out of 120)
Total EISA Non-Exempt FY 2016 Acquisitions	31 (out of 120)
EISA 141 Compliant Acquisitions	31 (out of 31)
FY 2016 Compliance Target	100%
FY 2016 Actual Performance	100%

In FY 2016, EPA acquired 31 vehicles subject to EISA 2007 requirements and all 31 vehicles were LGHGVs, resulting in an LGHGV acquisition rate of 100 percent and full compliance with EISA 2007. EPA will continue to monitor all vehicle acquisitions to ensure that EISA and EPAct acquisition requirements are met.

FY 2016 Compliance With EO 13693

EO 13693 mandates that federal fleets progressively reduce GHG emissions on a per-mile basis for a total reduction of 30 percent by FY 2025. Though experiencing a slight increase in per-mile GHG emissions from FY 2015, EPA exceeded the FY 2016 reduction target of 2 percent from the FY 2014 baseline with a total 3.8 percent reduction. EPA is on track to achieve more than the 4 percent target reduction in FY 2017. Figure 2 provides EPA's current performance and projected targets through FY 2025.

EPA reduced emissions from the FY 2014 baseline of 416.9 grams of carbon dioxide equivalent per mile (CO_2e g/mile) to 401.1 CO_2e g/mile in FY 2016. EPA will continue to develop and implement strategies to reduce GHG emissions by acquiring and utilizing fuel-efficient vehicles and alternative fuels.

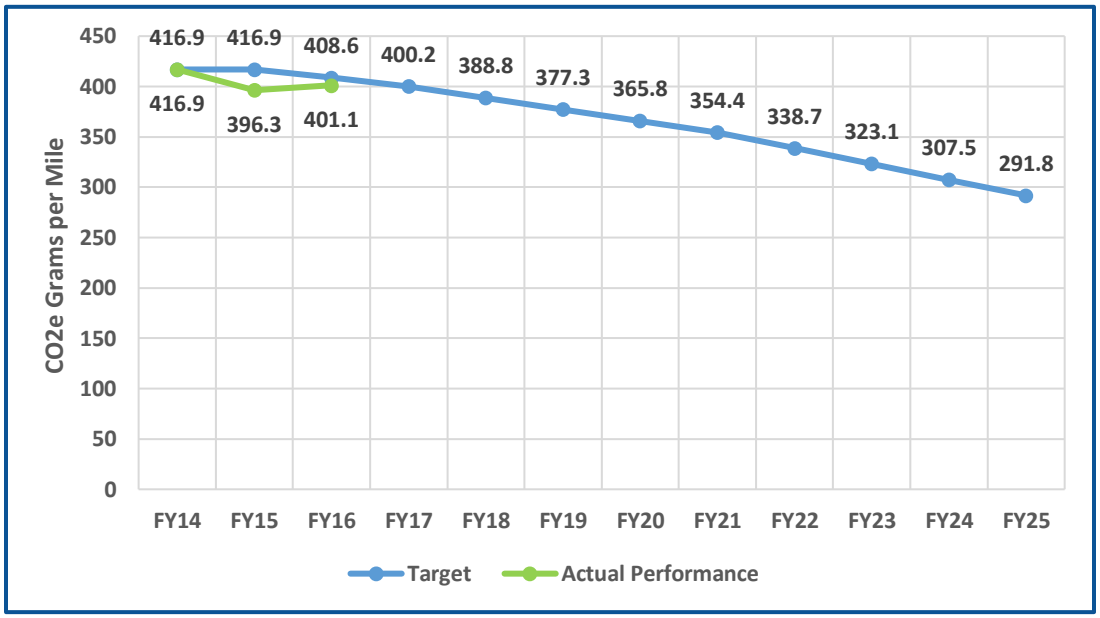

Figure 2. EPA's FY 2015 Performance in Meeting EO 13693 Requirements

Success Stories

In FY 2016, EPA was successful in meeting the 75 percent AFV acquisition requirement of EPAct 1992. As mentioned above and presented in Table 4 and Figure 2, EPA achieved a 76.9 percent AFV acquisition rate in FY 2016, exceeding requirements by 1.9 percent. EPA projects that it will well exceed this requirement for the next three fiscal years, based on current fleet estimates.[4]

EPA has adapted rapidly to the new requirements of EO 13693. Starting strong under the new requirement in FY 2015 at a 4.9 percent reduction, EPA continued its per-mile GHG emissions reductions in FY 2016, achieving a 3.8 percent reduction with a target of 2 percent. EPA's emissions are down from 416.9 CO_2e g/mile FY 2014 baseline to 401.1 CO_2e g/mile. EPA will reposition the Agency's fleet sustainability strategy to ensure compliance with EO 13693's shift in focus from absolute petroleum

[4] See Appendices B, C, and D for details.

reduction and alternative fuel growth to per-mile GHG efficiency. Efficient and strategic acquisitions, petroleum use reduction, and alternative fuel use will all continue to play vital roles in EPA's approach moving forward.

Though superseded by EO 13693, EPA continued to exceed the previous EO 13423 requirement to reduce petroleum consumption by 22 percent compared to 2005 consumption levels. In FY 2016, EPA reduced its covered petroleum footprint by 38.4 percent, exceeding the requirement by an extra 18.4 percent below the 2005 baseline. EPA had already met both the 22 percent total reduction goal of EO 13423 in FY 2009 (seven years earlier than required), and the 30 percent petroleum reduction goal of EO 13514 in FY 2011 (nine years earlier than required). The Agency will continue to reduce petroleum use as much as is feasible.

EPA continued to advance intra-Agency communication in FY 2016 between the EPA Headquarters fleet team and satellite fleet locations. As part of these efforts, EPA continued its fleet site visit program under the title, Fleet Compliance and Operations Review Enterprise (FleetCORE). EPA reviewed four regional fleet locations and conducted a comprehensive fleet management assessment for each. The review team issued FleetCORE reports that highlighted best practices and provided recommendations for improving operations and compliance efforts. Additionally, the Agency Fleet Manager conducted quarterly conference calls with Regional Fleet Managers to discuss Agency progress, current issues, conditions in the field, and potential strategies to increase alternative fuel consumption and reduce petroleum use. The Headquarters fleet team conducted a training session for EPA Fleet Managers via video teleconference (VTC) in November 2015. The objective of the training session was to share best practices in fleet management and reiterate the Agency's goals regarding environmental compliance.

In accordance with the Presidential Memorandum on Federal Fleet Performance and the General Services Administration (GSA) Bulletin B-30, EPA conducted a VAM in FY 2016 with the goal of identifying and eliminating under-utilized and unnecessary motor vehicles. After detailed research and analysis, EPA reduced overall fleet inventory by an additional 11 vehicles in FY 2016. Combined with the 159 vehicles the aAgency eliminated in FYs 2012-2015, EPA has reduced its fleet by 170 vehicles (14.8 percent of the FY 2011 baseline fleet inventory of 1,145 vehicles) since the issuance of the Presidential Memorandum. EPA's right-sizing efforts and fleet reductions are projected to provide significant cost savings over the next five years based on lease cost savings alone.

In FY 2016, EPA worked with GSA to develop pathways to leasing additional PHEVs and electric vehicle supply equipment (EVSE, also known as charging stations). PHEVs can help reduce the Agency's GHG emissions by using only electricity to power the vehicle for most common vehicle trips. PHEVs are just one of many advanced vehicle types that are making transportation more efficient and environmentally advantageous than ever before. EPA will continue to partner with GSA to promote and test clean vehicle technologies and assist in the expansion of next-generation AFVs.

Appendices

EPA's Fleet AFV Acquisitions for FY 2016 through FY 2019

Appendices A through D provide detailed information on actual and planned acquisitions of light-duty AFVs in FYs 2016 through 2019. As shown in Appendix A, EPA acquired a total of 120 light-duty vehicles in FY 2016. Of these, 91 were EPAct-covered acquisitions, thus establishing a 69-minimum-credit requirement to meet EPAct's 75 percent requirement. For FY 2016, the Agency acquired 70 AFVs and thus 70 EPAct credits, resulting in a 77 percent AFV acquisition rate.

Appendix B shows that the Agency plans to acquire a total of 348 light-duty vehicles in FY 2017. Of these, 206 will be EPAct-covered acquisitions, thus establishing a 155-minimum-credit requirement to meet EPAct's 75 percent requirement. For FY 2017, the Agency plans to acquire 167 AFVs, garnering 167 EPAct credits. This results in a projected 81 percent AFV acquisition rate.

Appendix C shows that the Agency plans to acquire a total of 288 light-duty vehicles in FY 2018. Of these, 190 will be EPAct-covered acquisitions, thus establishing a 143-minimum-credit requirement to meet EPAct's 75 percent requirement. For FY 2018, the Agency plans to acquire 178 AFVs, garnering 178 EPAct credits. This results in a projected 94 percent acquisition rate for AFVs.

Appendix D shows that the Agency plans to acquire a total of 252 light-duty vehicles in FY 2019. Of these, 206 of will be EPAct-covered acquisitions, thus establishing a 155-minimum-credit requirement to meet EPAct's 75 percent requirement. In FY 2019, the Agency plans to acquire 196 AFVs, garnering 103 EPAct credits. This results in a projected 95 percent AFV acquisition rate.

Appendix A: FY 2016 Actual EPAct Vehicle Acquisitions

Actual Light-Duty Vehicle Acquisitions and Exemptions	Leased	Purchased	Total
Total Light-Duty Vehicle Acquisitions	116	4	120
Fleet Exemptions: Fleet Size	0	0	0
Fleet Exemptions: Foreign	1	0	1
Fleet Exemptions: Geographic	2	0	2
Fleet Exemptions: Non- Metropolitan Statistical Area (MSA) Operation	4	0	4
Vehicle Exemptions: LE Vehicle	22	0	22
Vehicle Exemptions: Non-covered Vehicle	0	0	0
Vehicle Exemptions: Non-MSA Operation	0	0	0
Total EPAct-Covered Vehicles	**87**	**4**	**91**

Actual Alternative Fuel Vehicle Acquisition Detail						
Vehicle Type	**Fuel**	**LE**	**Lease**	**Purchase**	**Total**	**EPAct Credits**
Light Duty Vehicles						
Sedan/St Wgn Compact	E85 FF	No	2	0	2	2
Sedan/St Wgn Compact	E85 FF	Yes	3	0	3	0
Sedan/St Wgn Compact	GAS HY	No	23	0	23	23
Sedan/St Wgn Midsize	E85 FF	Yes	1	0	1	0
Sedan/St Wgn Subcompact	E85 FF	No	1	0	1	1
Sedan/St Wgn Subcompact	GAS HY	No	2	0	2	2
LD Minivan 4x2 (Cargo)	E85 FF	No	1	0	1	1
LD Minivan 4x2 (Passenger)	E85 FF	No	5	0	5	5
LD Pickup 4x2	E85 FF	Yes	2	0	2	0
LD SUV 4x2	E85 FF	No	10	0	10	10
LD Minivan 4x4 (Passenger)	E85 FF	No	1	0	1	1
LD Pickup 4x4	E85 FF	No	2	4	6	6
LD SUV 4x4	E85 FF	No	15	0	15	15
LD SUV 4x4	E85 FF	Yes	2	*0*	2	0
Medium Duty Vehicles						
MD Pickup	E85 FF	No	3	0	3	3
MD Van (Cargo)	E85 FF	No	1	0	1	1
		Totals:	**74**	**4**	**78**	**70**

Actual EPAct Acquisition Credits Summary	
Base AFV Acquisition Credits:	70
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:	0
Total EPAct Credits:	70
Overall EPAct Compliance Percentage:	**77 %**

Appendix B: FY 2017 Planned EPAct Vehicle Acquisitions

Planned Light-Duty Vehicle Acquisitions and Exemptions	Leased	Purchased	Total
Total Light-Duty Vehicle Acquisitions	166	10	176
Fleet Exemptions: Fleet Size	0	0	0
Fleet Exemptions: Foreign	1	0	1
Fleet Exemptions: Geographic	0	1	1
Fleet Exemptions: Non-MSA Operation	3	0	3
Vehicle Exemptions: LE Vehicle	66	0	66
Vehicle Exemptions: Non-covered Vehicle	0	0	0
Vehicle Exemptions: Non-MSA Operation	0	0	0
Total EPAct-Covered Vehicles	96	9	105

Planned Alternative Fuel Vehicle Acquisition Detail						
Vehicle Type	**Fuel**	**LE**	**Lease**	**Purchase**	**Total**	**EPAct Credits**
Light Duty Vehicles						
Sedan/St Wgn Compact	E85 FF	No	12	0	12	12
Sedan/St Wgn Compact	E85 FF	Yes	21	0	21	0
Sedan/St Wgn Compact	GAS AF	No	4	0	4	4
Sedan/St Wgn Compact	GAS AF	Yes	18	0	18	0
Sedan/St Wgn Compact	GAS HY	No	8	0	8	8
Sedan/St Wgn Compact	GAS HY	Yes	5	0	5	0
Sedan/St Wgn Midsize	E85 FF	Yes	7	0	7	0
Sedan/St Wgn Midsize	GAS HY	No	0	1	1	1
Sedan/St Wgn Subcompact	E85 FF	No	2	0	2	2
Sedan/St Wgn Subcompact	ELE DE	No	1	0	1	1
Sedan/St Wgn Subcompact	GAS AF	No	6	0	6	6
Sedan/St Wgn Subcompact	GASAF	Yes	8	0	8	0
Sedan/St Wgn Subcompact	GAS HY	No	23	0	23	23
Sedan/St Wgn Subcompact	GAS PH	No	13	0	13	13
LD Minivan 4x2 (Cargo)	E85 FF	No	1	0	1	1
LD Minivan 4x2 (Passenger)	E85 FF	No	5	0	5	5
LD Pickup 4x2	E85 FF	No	1	0	1	1
LD Pickup 4x2	GAS HY	No	1	0	1	1
LD Van 4x2 (Passenger)	E85 FF	No	1	0	1	1
LD Pickup 4x4	E85 FF	No	1	0	1	1
LD SUV 4x4	E85 FF	No	5	0	5	5
LD SUV 4x4	E85 FF	Yes	3	0	3	0
		Totals:	**146**	**1**	**147**	**85**

Planned EPAct Acquisition Credits Summary	
Base AFV Acquisition Credits:	85
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:	0
Total EPAct Credits:	85
Overall EPAct Compliance Percentage:	**81 %**

Appendix C: FY 2018 Projected EPAct Vehicle Acquisitions

Projected Light-Duty Vehicle Acquisitions and Exemptions	Leased	Purchased	Total
Total Light-Duty Vehicle Acquisitions	150	0	150
Fleet Exemptions: Fleet Size	0	0	0
Fleet Exemptions: Foreign	0	0	0
Fleet Exemptions: Geographic	1	0	1
Fleet Exemptions: Non-MSA Operation	4	0	4
Vehicle Exemptions: LE Vehicle	44	0	44
Vehicle Exemptions: Non-covered Vehicle	0	0	0
Vehicle Exemptions: Non-MSA Operation	0	0	0
Total EPAct-Covered Vehicles	**101**	**0**	**101**

Projected Alternative Fuel Vehicle Acquisition Detail						
Vehicle Type	**Fuel**	**LE**	**Lease**	**Purchase**	**Total**	**EPAct Credits**
Light Duty Vehicles						
Sedan/St Wgn Compact	E85 FF	No	3	0	3	3
Sedan/St Wgn Compact	E85 FF	Yes	24	0	24	0
Sedan/St Wgn Compact	GAS HY	No	27	0	27	27
Sedan/St Wgn Compact	GAS HY	Yes	3	0	3	0
Sedan/St Wgn Midsize	E85 FF	Yes	3	0	3	0
Sedan/St Wgn Subcompact	GAS AF	No	13	0	13	13
Sedan/St Wgn Subcompact	GAS AF	Yes	1	0	1	0
Sedan/St Wgn Subcompact	GAS HY	No	6	0	6	6
Sedan/St Wgn Subcompact	GAS HY	Yes	1	0	1	0
Sedan/St Wgn Subcompact	GAS PH	No	4	0	4	4
LD Minivan 4x2 (Passenger)	E85 FF	No	10	0	10	10
LD Pickup 4x2	E85 FF	No	2	0	2	2
LD Pickup 4x2	E85 FF	Yes	1	0	1	0
LD SUV 4x2	E85 FF	No	1	0	1	1
LD SUV 4x2	E85 FF	Yes	1	0	1	0
LD SUV 4x2	GAS HY	No	1	0	1	1
LD Pickup 4x4	E85 FF	Yes	2	0	2	0
LD Pickup 4x4	GAS HY	No	2	0	2	2
LD SUV 4x4	E85 FF	No	9	0	9	9
LD SUV 4x4	E85 FF	Yes	3	0	3	0
LD SUV 4x4	GAS HY	No	15	0	15	15
LD Van 4x4 (Cargo)	E85 FF	No	2	0	2	2
		Totals:	**134**	**0**	**134**	**95**

Projected EPAct Acquisition Credits Summary	
Base AFV Acquisition Credits:	95
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:	0
Total EPAct Credits:	95
Overall EPAct Compliance Percentage:	**94 %**

Appendix D: FY 2019 Forecasted EPAct Vehicle Acquisitions

Forecast Light-Duty Vehicle Acquisitions and Exemptions	Leased	Purchased	Total
Total Light-Duty Vehicle Acquisitions	125	1	126
Fleet Exemptions: Fleet Size	0	0	0
Fleet Exemptions: Foreign	0	0	0
Fleet Exemptions: Geographic	2	0	2
Fleet Exemptions: Non-MSA Operation	7	0	7
Vehicle Exemptions: LE Vehicle	14	0	14
Vehicle Exemptions: Non-covered Vehicle	0	0	0
Vehicle Exemptions: Non-MSA Operation	0	0	0
Total EPAct-Covered Vehicles	**102**	**0**	**103**

Forecast Alternative Fuel Vehicle Acquisition Detail						
Vehicle Type	**Fuel**	**LE**	**Lease**	**Purchase**	**Total**	**EPAct Credits**
Light Duty Vehicles						
Sedan/St Wgn Compact	E85 FF	No	3	0	3	3
Sedan/St Wgn Compact	E85 FF	Yes	4	0	4	0
Sedan/St Wgn Compact	GAS HY	No	23	0	23	23
Sedan/St Wgn Midsize	E85 FF	Yes	1	0	1	0
Sedan/St Wgn Subcompact	E85 FF	No	1	0	1	1
Sedan/St Wgn Subcompact	GAS HY	No	2	0	2	2
LD Minivan 4x2 (Passenger)	E85 FF	No	19	0	19	19
LD Minivan 4x2 (Passenger)	E85 FF	Yes	1	0	1	0
LD Pickup 4x2	E85 FF	No	1	0	1	1
LD Pickup 4x2	E85 FF	Yes	1	0	1	0
LD SUV 4x2	E85 FF	No	4	0	4	4
LD Pickup 4x4	E85 FF	No	3	0	3	3
LD SUV 4x4	E85 FF	No	38	0	38	38
LD SUV 4x4	E85 FF	Yes	5	0	5	0
LD SUV 4x4	GAS HY	No	4	0	4	4
		Totals:	**110**	**0**	**110**	**98**

Forecast EPAct Acquisition Credits Summary	
Base AFV Acquisition Credits:	98
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:	0
Total EPAct Credits:	98
Overall EPAct Compliance Percentage:	**95 %**

Appendix E: Previous EO Metrics

EO 13693 revoked EO 13423 and EO 13514 on March 19, 2015. Though revoked part way through that fiscal year, EO 13423 compliance through FY 2016 is noted in this report, primarily to track continuing reductions in petroleum consumption. By FY 2016, EPA was required to reduce petroleum consumption by 22 percent relative to a FY 2005 consumption baseline. EPA's actual reduction was 38.4 percent below FY 2005 levels. EPA exceeded the total petroleum reduction target of EO 13423 in FY 2009 (six years earlier than required) and surpassed the 30 percent reduction requirement goal of EO 13514. EPA remains diligent in implementing new strategies to reduce the Agency's petroleum use.

EO 13423 also required federal fleets to increase consumption of alternative fuels by 10 percent annually compared to the previous year's EO 13423-mandated amount. EPA did not meet this goal in FY 2016, falling short by approximately 101,001 gasoline gallon equivalents (GGEs). Although EPA has made positive strides in alternative fuel use in recent years, the lack of alternative fueling infrastructure remains an obstacle to utilization within the fleet. However, despite a paucity of alternative fuel infrastructure, the Agency still managed to utilize 26,231 GGEs of alternative fuel in FY 2016, thereby offsetting a sizable portion of petroleum that would have otherwise been consumed. Table E-1 summarizes EPA's performance against the goals of EO 13423.

Table E-1. EPA's FY 2016 Performance in Meeting EO 13423 Requirements

Petroleum Consumption		Alternative Fuel Consumption	
FY 2005 Baseline	513,346 GGEs	FY 2005 Baseline	44,594 GGEs
FY 2016 Petroleum Consumption Goal	400,410 GGEs (22% reduction from baseline)	FY 2016 Alt. Fuel Consumption Goal	115,665 GGEs (159.4% increase from baseline)
FY 2016 Actual Petroleum Consumption	316,035 GGEs (38.4% reduction from baseline)	FY 2016 Actual Alt. Fuel Consumption	26,231 GGEs (-24.5% increase from baseline)
EO 13423 Compliant?	Yes	EO 13423 Compliant?	No

Table E-2 summarizes the Agency's covered fuel consumption (by type of fuel) in motor vehicles during FYs 2005 through 2016.

Table E-2. EPA's Total Covered Fuel Use in FYs 2005 through 2016 (in GGEs)

Fuel Type	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016
CNG[1]	17,970	10,371	188	250	90	244	143	0	0	0	0	0
E85	26,498	8,340	16,563	36,563	48,619	40,020	51,427	50,871	47,521	45,158	32,783	25,725
Biodiesel	126	519	2,050	2,609	2,381	2,204	2,180	1,722	1,425	866	641	299
Hydrogen	0	0	0	18	74	54	0	0	0	0	0	0
Electricity	0	0	0	0	0	0	0	70	107	117	240	207
Total Alt. Fuel Use	44,594	19,230	18,801	39,440	51,164	42,522	53,750	52,663	49,053	46,141	33,664	26,231
Total Covered Petroleum	513,346	451,996	469,557	413,130	395,242	385,172	345,602	347,856	313,891	286,281	312,449	316,035

[1] Compressed natural gas

Appendix F: Acronyms

Acronym	Phrase
AFV	Alternative fuel vehicle
CNG	Compressed natural gas
CO_2e g/mile	Carbon dioxide equivalent grams per mile
CY	Calendar year
E85/E85 FF	Ethanol (*85% ethanol, 15% petroleum*)/E85 flex-fuel
EISA	Energy Independence and Security Act of 2007
ELE DE	Electric dedicated
EO	Executive Order
EPAct	Energy Policy Act
FleetCORE	Fleet Compliance and Operations Review Enterprise
FY	Fiscal Year
GAS HY	Gasoline hybrid electric vehicle
GAS PH	Gasoline plug-in hybrid electric vehicle
GGE	Gasoline gallon equivalent
GSA	Government Services Administration
GHG	Greenhouse gas
HEV	Hybrid electric vehicle
LD/MD/HD	Light-, medium-, or heavy-duty — as determined by gross vehicle weight
LE	Law enforcement
LGHGV	Low greenhouse gas-emitting vehicle
MSA/CMSA	Metropolitan Statistical Area/Consolidated Metropolitan Statistical Area
PHEV	Plug-in hybrid electric vehicle
SUV	Sport utility vehicle
VAM	Vehicle allocation methodology
VTC	Video teleconference
ZEV	Zero emission vehicle