

# U.S. Postal Service Fiscal Year 2015 Fleet Alternative Fuel Vehicle Program Report February 15, 2016

This report presents data on alternative fuel vehicles (AFVs) acquired by the United States Postal Service, alternative fuel use, and petroleum fuel savings in fiscal year 2015. The report complies with the Energy Policy Act of 2005 and takes into consideration Executive Order 13693 – *Planning for Federal Sustainability in the Next Decade*.

## FY 2015 AFV Acquisition Summary

<b>Actual EPA Act Acquisition Credits Summary</b>	
Base AFV Acquisition Credits:	4,222
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:	558
<b>Total EPA Act Credits:</b>	<b>4,780</b>
<b>Overall EPA Act Compliance Percentage:</b>	<b>183 %</b>

## Energy Legislation and Executive Orders

On August 8, 2005, President Bush signed the Energy Policy Act of 2005 (EPA Act). EPA Act requires that in FY1999 and beyond 75% of all covered light-duty vehicles acquired for federal fleets must be AFVs. Certain types of emergency, law enforcement, and national defense vehicles are exempt from these requirements.

EPA Act Section 701 requires federal fleets to use alternative fuels in dual-fuel vehicles acquired under the EPA Act 1992 programs unless the Secretary of Energy approves a waiver. Criteria for a waiver include: alternative fuel is not reasonably available (5 miles or 15 minutes driving distance) to the fleet or the cost of alternative fuel is unreasonably more expensive than conventional fuel.

In addition, EPA Act allows one alternative fuel vehicle acquisition credit for every 450 gallons of neat biodiesel fuel consumed or 2,250 gallons of B20 (20% biodiesel and 80% regular diesel). Biodiesel credits may fulfill up to 50 percent of annual EPA Act requirements. The head of each Federal agency and independent establishment must also prepare and submit a report to Congress outlining its AFV acquisitions and future plans by February 15th each year.

In January 2008, the National Defense Authorization Act (NDAA) was signed into public law by President Bush. The Act amends the 2005 Energy Policy Act allowing the acquisition of a broader array of alternative fuel vehicles which includes hybrid and very fuel efficient motor vehicles.

In March 2015, President Obama signed Executive Order 13693, *Planning for Federal Sustainability in the Next Decade*. This Executive Order builds on the success of Executive Orders 13514 and 13423 and expands the focus in several areas including the use of renewable and alternative energy. It contains certain requirements for federal fleets, such as determining optimum fleet inventory; taking action to reduce fleet-wide GHG emissions; collecting and using fleet operational data through deployment of

vehicle telematics for all new passenger and light duty vehicle acquisitions; using zero emission vehicles or plug-in hybrid vehicles; and planning for AFV infrastructure. While Executive Order 13693 does not apply to the Postal Service, it does contain language asking the Department of Energy to assist the Postal Service in evaluating the best alternative- and advanced-fuel technologies for the Postal fleet and to report on progress annually. In addition, wherever possible, the Postal Service voluntarily sets specific goals and adopts internally-binding policies that seek to meet requirements applicable to federal agencies.

### ***U.S. Postal Service Approach***

To achieve compliance with the legislative mandates of EPCA, the Energy Independence and Security Act (EISA) 2007 and take into consideration EO 13693, the Postal Service's strategy for vehicle acquisitions is as follows:

- Mail hauling vehicle purchases will be AFVs, provided that mission-appropriate and cost effective vehicles are made available by manufacturers. The Postal Service will continue to centrally purchase all delivery vehicles.
- Non-mail-hauling vehicles will be AFVs, provided that the AFV complies with operational requirements.
- The Postal Service will continue to use biodiesel in its diesel vehicles when it is cost comparable. In FY2015, 283,150 gasoline gallons equivalent (GGE) of neat biodiesel were used, earning the Postal Service a total of 629 EPCA credits. However, Biodiesel credits may fulfill up to 50 percent of annual EPCA requirements. The Postal Service had 2,605 covered acquisitions and 558 biodiesel credits counted toward its AFV acquisition requirements.

The Postal Service faces some challenges in reporting on its acquisitions as it does not purchase delivery vehicles on a regular schedule. Moreover, since the majority of delivery vehicles are custom-designed, right-hand-drive vehicles, the Postal Service purchases vehicles in large quantities to attain a favorable unit price, as shown in Table 1. The uneven stream of delivery vehicle purchases can cause large fluctuations in the absolute numbers of acquisitions that form the basis for EPCA percentage calculation.

Among Federal entities, the Postal Service has a unique mission and does not receive appropriations for operating expenses. However, the Postal Service takes into consideration EO 13693 when developing strategies to reduce fuel consumption and increase fleet operational efficiency. This is discussed in further detail under the Petroleum Savings section of this report.

**Table 1. U.S. Postal Service Vehicle Acquisition Summary**

Year	Vehicle Total	*Vehicle Type	Fuel Type					
			Other	E85	CNG	Electric	Hybrid	LPG
2005	3,044	LD	1,483	1,387				
		MD	103					
		HD	71					
2006	5,168	LD	608	2,688				
		MD	168					
		HD	1,704					
2007	5,913	LD	483	5,242	6			
		MD	72					
		HD	110					
2008	2,126	LD	249	1,825				
		MD	26					
		HD	26					
2009	3,226	LD	1,979	505			731	
		MD	10					
		HD	1					
2010	3,308	LD	2,620	521			167	
2011	120	LD	37	68			2	
		MD	13					
2012	101	LD	37	62				
		MD	1	1				
2013	554	LD	138	162			8	
		MD	1	9				
		HD	236					
2014	681	LD	79	200			10	
		MD	14	18	6			
		HD	354					
2015	5,347	LD	112	3,723			19	
		MD	190	679				
		HD	624					

\*LD – Light Duty  
 MD – Medium Duty  
 HD – Heavy Duty

***FY2015 U.S. Postal Service Fleet Compliance***

The Postal Service leases and purchases both covered and non-covered light duty vehicles. In FY2015 3,854 light duty vehicles were acquired and 2,605 vehicles were exempted because they are operated primarily outside of a covered Metropolitan Statistical Area (MSA) or are law enforcement vehicles. The remaining 1,249 were covered vehicles under EPCa or the NDAA. The Postal Service also gained 558 credits for biodiesel fuel use and credit for 869 medium-duty AFV acquisitions. The combination of AFV acquisitions and biodiesel use earned the Postal Service a grand total of 4,780 AFV credits in FY2015. As

a result, the Postal Service once again exceeded the mandatory 75% EAct requirement with a total EAct percentage of 183%, as shown in Table 2.

**Table 2. U.S. Postal Service's Acquisition of AFVs in FY2015**

<b>EAct-Covered Acquisitions</b>	<b>AFV Acquisition Requirement for FY2015</b>	<b>Total AFV Acquisitions (including credits)</b>	<b>EAct Percentage</b>
3,854	2,605	4,780	183%

This is the eighteenth consecutive year that the Postal Service has met or exceeded the minimum EAct AFV acquisition requirement.

***FY2015 U.S. Postal Service Fleet Fuel Use***

Table 3 presents FY2015 fuel consumption data by fuel type for the Postal Service's vehicle fleet. It includes fuel consumption for the 212,360 Postal Service vehicles.

**Table 3. U.S. Postal Service Fuel Use in FY2015**

<b>Postal Service Fleet Fuel Use In GGE</b>	
From Biodiesel (B100)	283,150
From CNG	86,257
From E-85	422,702
From Electric	2,076
From Propane	19,961
<b>Total Alternative Fuel Use</b>	<b>814,146</b>
From Gasoline	140,105,689
From Diesel	31,511,475
<b>Total Non-Alternative Fuel Use</b>	<b>171,617,164</b>
<b>Total Vehicle Fuel Use</b>	<b>172,431,310</b>

***Petroleum Savings***

The Postal Service is unique among Federal entities covered by EAct. The mandate for providing universal delivery service requires that mail distribution and delivery network constantly adapt to meet the needs of millions of new households and businesses across the country. As a business entity that operates within a highly competitive environment, the Postal Service must also remain acutely sensitive to its customers' needs for affordable service.

The Postal Service's mandate to serve the daily mail delivery needs of growing communities across the country is met largely through its delivery vehicle fleet. The vast majority of fuel used for daily mail delivery is purchased from local merchants using the Voyager Fleet Credit Card. Letter carriers refuel their vehicles at locations along their routes when possible to minimize work hours and added fuel consumption associated with traveling to more distant fueling points.

The Postal Service continues to increase the efficiency of its delivery network by regularly reviewing transportation networks and consolidating or eliminating trips where appropriate. These transportation efficiency actions reduce fuel consumption, consistent with Federal goals. In addition, mail automation and management initiatives have reduced the absolute number of delivery routes, avoided the creation of

routes to support new delivery growth, and increased the average number of deliveries served by individual carriers.

Another factor that influences Postal Service fuel statistics is its contractual obligation with the National Rural Letter Carrier's Association to provide right-hand drive postal vehicles to selected rural delivery routes. Formerly, these rural letter carriers received an allowance to cover the cost of fueling their own private vehicle for mail delivery purposes. The fuel used by these postal vehicles appears as increased consumption for FAST reporting purposes.

The nature of postal operations, including the unavoidable "stop-and-go" duty cycle of the routes, makes it difficult to obtain significant fuel savings with conventional vehicles. However new technologies such as hybrid electric and dedicated electric vehicles have emerged which may provide improved gas mileage, especially in stop-and-go situations. The Postal Service continues to partner with manufacturers to test this technology.

The Postal Service issued an RFP for the next generation postal delivery vehicle, which will replace more than 100,000 delivery vehicles, on October 16, 2015.

### ***Alternative Fuel Use***

The consumption of 422,702 GGE of E85 led alternative fuel usage in FY2015. The fleet also consumed:

- 283,150 GGE Neat biodiesel
- 86,257 GGE CNG
- 19,961 GGE LPG
- 2,076 GGE Electricity

In total, the fleet consumed 814,146 GGEs of alternative fuel.

The Postal Service has made a concerted effort to increase alternative fuel usage without compromising our mission by educating employees on EPA's Act.

The Postal Service partnered with the Department of Energy (DOE) Federal Energy Management Program (FEMP) to populate the Fleet Sustainability Dashboard (FleetDASH) with Postal Service vehicle and fuel use information. The purpose of this partnership is to drive purchases of renewable fuels when available, at the same cost or less than the cost of conventional fuel, to ensure the Postal Service is in compliance with federal laws requiring the use of sustainable fuels.

FleetDASH tracks vehicle fueling information, based on a feed of Voyager credit card data, identifying where Postal Service vehicles are refueled, then analyzes the purchases to see if alternative fuel is available within a designated radius of the original purchase. This tool helps to identify "Missed Opportunities." Missed Opportunities are instances where conventional fuel was purchased by a driver using an alternative fuel capable vehicle at a location where the alternative fuel is available and could have been purchased.

The Missed Opportunities Report is currently in draft form. The report was field validated in FY2015, and will be provided to Postal Service leadership every month beginning FY2016 with the goal of increasing purchases of alternative fuels.

Additionally, to help achieve efficiency, the Postal Service implemented a Fuel Conservation campaign. A fuel conservation kit was developed and sent to Field offices with 60 or more domiciled vehicles. The kit included a short video, poster, and memorandum from the Deputy Postmaster General (DPMG) Ronald Stroman on best driving strategies personnel should demonstrate when operating a Postal vehicle, such as no excessive speeding or aggressive driving, no idling and check for underinflated tires.

The potential to utilize E-85 and other alternative fuels is limited by their commercial availability. Like the general public, the Postal Service relies on local commercial infrastructure to supply convenient and competitively-priced fuel for its delivery fleet. If alternative fuel locations are not conveniently located and competitively priced, the Postal Service cannot access and utilize them in its delivery fleet. While the Postal Service provides information on AFV deployment to interested suppliers and industry advocates to assist in development of fuel infrastructure, the Postal Service fleet depends on public alternative fuel infrastructure to purchase alternative fuels using fleet cards. These card systems are excellent at recording the financial aspects of the fuel transactions but fall short of accurately recording the quantity and type of fuel purchased. This impacts the Postal Service's ability to report all alternative fuel usage accurately.

Unlike other parts of the federal government, the Postal Service does not receive Congressional appropriations for its fuel costs. Instead, our fuel costs are funded by sales of postage and services, and we rely on local commercial infrastructure to supply convenient and competitively-priced fuel. As a self-funded entity operating within a highly competitive business environment, the price of alternative fuel on a GGE basis is particularly significant to the Postal Service. Controlled testing of our flexible fuel delivery vehicles has documented a 27% reduction in fuel efficiency when operated on E-85 fuel due to its reduced energy content relative to gasoline. From the standpoint of our business and ratepayer concerns, alternative fuel must be both very conveniently located in order to avoid undue carrier work-hour expense associated with refueling, and competitively priced on a GGE basis.

### ***Alternative Fuel Vehicle Activities***

Below is a summary of some of the current and future activities relating to Postal Service Alternative Fuel Vehicles:

- In December 2009, five companies were awarded contracts to convert a gas-powered long life vehicle or LLV to a battery electric vehicle or eLLV. We will continue testing eLLVs within our network in the DC metropolitan area. As of 2015, two of the original five eLLVs suppliers awarded in 2009 remain in service.
- The Postal Service received a Chevrolet Equinox hydrogen fuel cell vehicle and began testing in Hawaii in late spring 2012. The vehicle was used for 3 years and discontinued in late 2014.
- Engineering completed a comprehensive report on alternative fuel vehicle experience.

### ***Summary***

The Postal Service is a self-supporting independent establishment of the Executive Branch that funds operations from the revenue generated by the sales of products and services, not taxpayer subsidies received through the Congressional appropriations process. To gain financial stability, the Postal Service is taking aggressive steps to increase efficiencies in our network.

The Postal Service exceeded minimum EPA Act alternative fuel vehicle acquisition requirements in FY2015 for the eighteenth consecutive year. This achievement is due to the continued commitment of vehicle managers, drivers, and letter carriers throughout the Postal Service.

## Appendix A

### 2015 AFV Report

1. Actual Light-Duty Vehicle Acquisitions and Exemptions						
	Acquisitions					
	Leased	Purchased	Total			
Total Light-Duty Vehicle Acquisitions	74	3,780	3,854			
Fleet Exemptions: Fleet Size	0	0	0			
Fleet Exemptions: Foreign	0	0	0			
Fleet Exemptions: Geographic	0	0	0			
Fleet Exemptions: Non-MSA Operation	0	0	0			
Vehicle Exemptions: LE Vehicle	0	261	261			
Vehicle Exemptions: Non-covered Vehicle	0	0	0			
Vehicle Exemptions: Non-MSA Operation	43	945	988			
<b>Total EPAAct-Covered Vehicles</b>	<b>31</b>	<b>2,574</b>	<b>2,605</b>			
2. Actual Alternative Fuel Vehicle Acquisition Detail						
Vehicle Type	Fuel	LE	Acquisitions			EPAAct Credits
			Lease	Purchase	Total	
<i>Light Duty Vehicles</i>						
Sedan/St Wgn Compact	E85 FF	No	0	7	7	7
Sedan/St Wgn Compact	E85 FF	Yes	0	4	4	0 <sup>1</sup>
Sedan/St Wgn Compact	GAS AF	Yes	0	5	5	0 <sup>1</sup>
Sedan/St Wgn Compact	GAS HY <sup>3</sup>	No	0	1	1	1
Sedan/St Wgn Compact	GAS HY <sup>3</sup>	Yes	0	2	2	0 <sup>1</sup>
Sedan/St Wgn Large	E85 FF	Yes	0	9	9	0 <sup>1</sup>
Sedan/St Wgn Midsize	E85 FF	No	0	2	2	2
Sedan/St Wgn Midsize	E85 FF	Yes	0	37	37	0 <sup>1</sup>
Sedan/St Wgn Midsize	GAS HY <sup>3</sup>	No	0	3	3	3
Sedan/St Wgn Midsize	GAS HY <sup>3</sup>	Yes	0	5	5	0 <sup>1</sup>
Sedan/St Wgn Subcompact	E85 FF	No	6	0	6	6
Sedan/St Wgn Subcompact	GAS HY <sup>3</sup>	No	2	0	2	2
Sedan/St Wgn Subcompact	GAS PH	No	1	0	1	1
LD Minivan 4x2 (Cargo)	E85 FF	No	0	3,492	3,492	3,492
LD Minivan 4x2 (Passenger)	E85 FF	No	12	0	12	12
LD Minivan 4x2 (Passenger)	E85 FF	Yes	0	2	2	0 <sup>1</sup>

LD Other 4x2	E85 FF	Yes	0	2	2	0 <sup>1</sup>
LD Pickup 4x2	E85 FF	No	6	0	6	6
LD Pickup 4x2	E85 FF	Yes	0	10	10	0 <sup>1</sup>
LD SUV 4x2	E85 FF	Yes	0	39	39	0 <sup>1</sup>
LD SUV 4x2	GAS AF	Yes	0	1	1	0 <sup>1</sup>
LD SUV 4x2	GAS HY <sup>3</sup>	No	0	2	2	2
LD SUV 4x2	GAS HY <sup>3</sup>	Yes	0	1	1	0 <sup>1</sup>
LD Van 4x2 (Cargo)	E85 FF	No	0	4	4	4
LD Van 4x2 (Passenger)	E85 FF	Yes	0	2	2	0 <sup>1</sup>
LD Pickup 4x4	E85 FF	Yes	0	11	11	0 <sup>1</sup>
LD Pickup 4x4	GAS HY <sup>3</sup>	Yes	0	1	1	0 <sup>1</sup>
LD SUV 4x4	E85 FF	No	4	1	5	5
LD SUV 4x4	E85 FF	Yes	0	72	72	0 <sup>1</sup>
LD SUV 4x4	GAS AF	Yes	0	1	1	0 <sup>1</sup>
LD SUV 4x4	GAS HY <sup>3</sup>	Yes	0	1	1	0 <sup>1</sup>
LD Van 4x4 (Cargo)	E85 FF	Yes	0	1	1	0 <sup>1</sup>
<i>Medium Duty Vehicles</i>						
MD Other	E85 FF	No	12	0	12	12
MD Van (Cargo)	E85 FF	No	2	665	667	667
<b>Totals:</b>			<b>45</b>	<b>4,383</b>	<b>4,428</b>	<b>4,222</b>
<b>3. Actual EPA Act Acquisition Credits Summary</b>						
Base AFV Acquisition Credits:						4,222
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: <sup>2</sup>						558
<b>Total EPA Act Credits:</b>						<b>4,780</b>
<b>Overall EPA Act Compliance Percentage:</b>						<b>183 %</b>

**Notes:**

1. EPA Act credits granted for acquisition of law enforcement and emergency/emergency response vehicles. DOE has determined that credits will not be granted for acquisition of these vehicles beginning with FY2010 and in all years after FY2010.
2. EPA Act allows credits toward compliance to be granted for consumption of biodiesel fuel; one 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.
3. For years prior to 2009, EPA Act acquisition credits were not granted for 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.