



Department of Energy
Washington, DC 20585

November 30, 2017

The Honorable Michael R. Pence
President of the Senate
Washington, DC 20510

Dear Mr. President:

This letter report on Federal Government energy management for FY 2015¹ provides information on energy consumption in Federal buildings, operations, and vehicles.² It summarizes the findings contained in data tables with agency-specific details located online at <http://energy.gov/eere/femp/federal-facility-annual-energy-reports-and-performance>.

This report includes links to historical data tables of agency energy use and costs by facility and mobility sectors by energy type for FY 1975 through FY 2015. [Detailed annual comprehensive greenhouse gas \(GHG\) inventories](#) by Federal agency are presented along with [progress toward achieving scope 1 and 2 direct GHG](#) emissions reductions and [scope 3 indirect GHG](#) emissions reductions. Hyperlinked text to specific data tables detailing the findings discussed is located throughout this letter.

Total Federal energy consumption and costs are summarized below by [end-use sector](#):

FY 2015 Energy Use	Trillion Btu	Percentage of Energy	\$Billion	Percentage of Costs
Goal Buildings	316.7	33.4%	\$5.9	27.5%
Excluded Facilities ³	45.4	4.8%	\$0.8	3.9%
Vehicles & Equipment	584.9	61.8%	\$14.6	68.6%
<i>Total</i>	<i>947.0</i>	<i>100.0%</i>	<i>\$21.3</i>	<i>100.0%</i>

¹ Responds to the requirements of section 543 of the National Energy Conservation Policy Act (NECPA), Pub. L. No. 95-619, as amended (42 U.S.C. § 8253); sections 801-804 of NECPA, Pub. L. No. 95-619, as amended (42 U.S.C. §§ 8287-8287d); section 203 of the Energy Policy Act of 2005 (EPACT 2005), Pub. L. No. 109-58 (42 U.S.C. § 15852); section 109 of EPACT 2005, Pub. L. No. 109-58 (42 U.S.C. § 6834(a)); section 303 of the Energy Policy Act of 1992 (42 U.S.C. § 13212(b)(1)-(2)); Section 701 of EPACT 2005 (42 U.S.C. § 6374(a)(3)(E)) and Executive Order 13514, "Federal Leadership in Environmental, Energy, and Economic Performance," 74 Fed. Reg. 52,117 (Oct. 5, 2009) (in effect during FY 2015).

² As required by section 548(b) of the National Energy Conservation Policy Act (NECPA), Pub. L. No. 95-619, as amended. See 42 U.S.C. § 8258(b).

³ The list of buildings excluded from the energy performance requirement of 42 U.S.C. § 8253(a) is available here: <http://ctsedweb.ee.doe.gov/Annual/2015/Report/EnergyGoalExcludedFacilities.aspx>.

Federal agencies reported that buildings subject to the National Energy Conservation Policy Act energy reduction goals collectively [decreased energy use per gross square foot \(Btu/GSF\) by 22.7 percent in FY 2015 relative to FY 2003](#). The FY 2015 requirement was a 30 percent reduction.

Federal agencies reported purchasing or producing [4,623.2 gigawatt-hours of renewable electric energy in FY 2015, equivalent to 8.3 percent of the Federal Government's FY 2015 electricity use](#). The FY 2015 requirement was 7.5 percent of electricity use. In terms of total use of Federal goal-eligible renewable electricity, the Department of Defense consumed 23.3 percent of all renewable electricity utilized by Federal agencies, followed by Department of Energy with 22.6 percent; Department of Veterans Affairs with 18.3 percent; General Services Administration with 6.2 percent; Department of Transportation with 3.5 percent; and NASA with 3.2 percent.

As reported by the agencies, the Federal Government as a whole used [129.0 billion gallons of water in FY 2015 at a cost of \\$527.2 million, for an average price of \\$4.09 per 1,000 gallons](#). Overall, the Federal Government's water intensity in FY 2015 was [41.5 gallons per gross square foot, a reduction of 21.8 percent from the 53.1 gallons per gross square foot reported in FY 2007](#). Agencies began reporting Industrial, Landscaping and Agricultural (ILA) water use for the first time in 2010. In FY 2015, agencies reported using [97.5 billion gallons of non-potable ILA water, a 27.3 percent reduction from the 134.1 billion gallons consumed in FY 2010](#).

During FY 2015, Federal agencies had three primary options for financing energy efficiency, water conservation, and renewable energy projects in buildings: 1) direct appropriated funding; 2) energy savings performance contracts (ESPCs); and 3) utility energy service contracts (UESCs). Known funding from the three sources totaled approximately [\\$1,979.6 million in FY 2015](#).

- Direct appropriations accounted for approximately [\\$1,388.1 million](#).
- ESPC awards by agencies resulted in approximately [\\$465.5 million](#) in project investment in FY 2015.
- Approximately [\\$126.1 million](#) in project investment came from UESCs.

On March 6, 2015, the Federal Energy Management Program (FEMP) issued a funding opportunity announcement titled Assisting Federal Facilities with Energy Conservation Technologies (AFFECT), Fiscal Year 2015. [Grants were awarded to four Federal agencies in the topic area of renewable energy](#). Three projects include solar photovoltaic technology and one project was for a biomass steam turbine generator. The total amount of grant funding was \$2.85 million, and the total project investment for all four projects will be over \$70 million.

FEMP facilitated interagency exchange of information concerning the conservation and efficient use of energy and water in three key ways in FY 2015:

- Convening [Energy Exchange 2015](#) in Phoenix, Arizona,
- Recognizing recipients of the [Federal Energy and Water Management Awards](#),
- Promoting [energy-efficient products and energy-saving technologies](#).

Section 109 of EPCACT 2005, “Federal Building Performance Standards,” requires that, if life-cycle cost-effective, all new Federal buildings must be designed to achieve energy consumption levels 30 percent below those of the current version of the applicable ASHRAE standard or the International Energy Conservation Code.⁴ [Overall, agencies reported over 93.8 percent of buildings designed since 2007 are 30 percent more efficient than the relevant code](#). Agencies also have an opportunity to revisit designs to bring them into compliance.

Section 303 of EPCACT 1992 requires that the total number of alternative fuel vehicles (AFVs) acquired by a Federal fleet represent at least 75 percent of agency light-duty vehicle (LDV) acquisitions in metropolitan statistical areas (MSAs) each fiscal year. In FY 2015, for the thirteenth consecutive year, [the overall Federal fleet exceeded its EPCACT AFV acquisition requirement—with 28 of the 30 covered agencies meeting and/or exceeding the requirement](#). As a result of its AFV acquisitions (including medium- and heavy-duty vehicles and those outside of MSAs) and biodiesel fuel use, the Federal Government, as a whole, earned AFV acquisition credits amounting to [185 percent of the Government’s covered vehicle acquisitions](#).

In order to promote increased alternative fuel consumption by AFVs in the Federal fleet, Section 701 of EPCACT 2005 requires Federal agencies to use only alternative fuel in all of its dual fueled AFVs unless the Secretary of Energy grants a waiver due to the unavailability of alternative fuel or if the fuel is unreasonably more expensive than gasoline. In FY 2015, Federal fleets consumed 10.3 million gasoline gallon equivalents (GGE) of alternative fuel in non-waivered, dual fueled vehicles, and a total of 15.1 million GGE of alternative fuel in all vehicles. These figures equate to [using an average of 99 GGE of alternative fuel use per non-waivered dual-fuel AFV](#). DOE is taking multiple actions to overcome the barriers limiting use of alternative fuel in the Federal fleet, including providing a web-based tool to monitor fuel consumption by dual fueled AFVs, providing a Web-based tool for locating alternative fueling stations, and encouraging retail development of additional alternative fueling stations by providing the locations of vehicles receiving waivers. [The 15.1 million GGE of alternative fuel consumed by Federal vehicles represents an increase of 210 percent from FY 2005](#), and an avoidance of petroleum consumption of equal magnitude. The average price of alternative fuel was \$3.28 per GGE in FY 2015. Federal fleets consumed 18.7 million gallons (13.4M GGE) of E85, which is approximately 44 percent of the U.S. Energy Information Administration’s reported 2015 U.S. production of ethanol blends greater than 55 percent.

⁴ 42 U.S.C. § 6834(a)(3)(A)

If you need additional information concerning the report, please contact me or Ms. Jennifer Loraine, Deputy Assistant Secretary for Senate Affairs, Office of Congressional and Intergovernmental Affairs, at (202) 586-5450.

Sincerely,

Daniel R Simmons
Principal Deputy Assistant Secretary
Energy Efficiency and Renewable Energy