

Office of ENERGY EFFICIENCY & RENEWABLE ENERGY

# Federal Government FY 2019 Efficiency Performance

Federal Energy Management Program

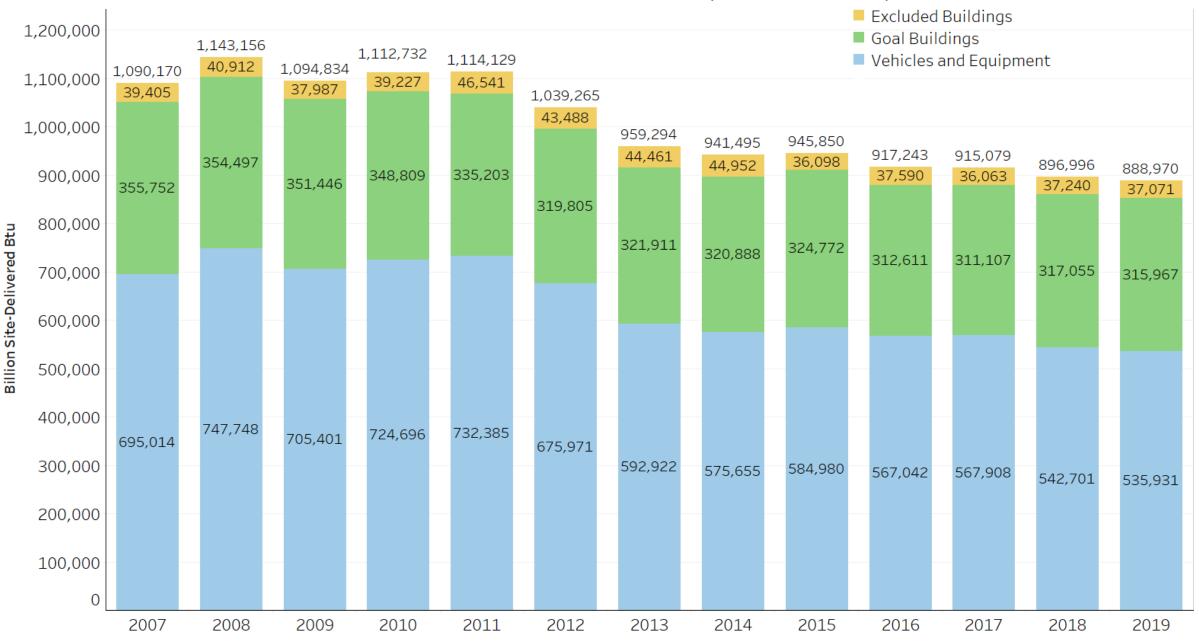




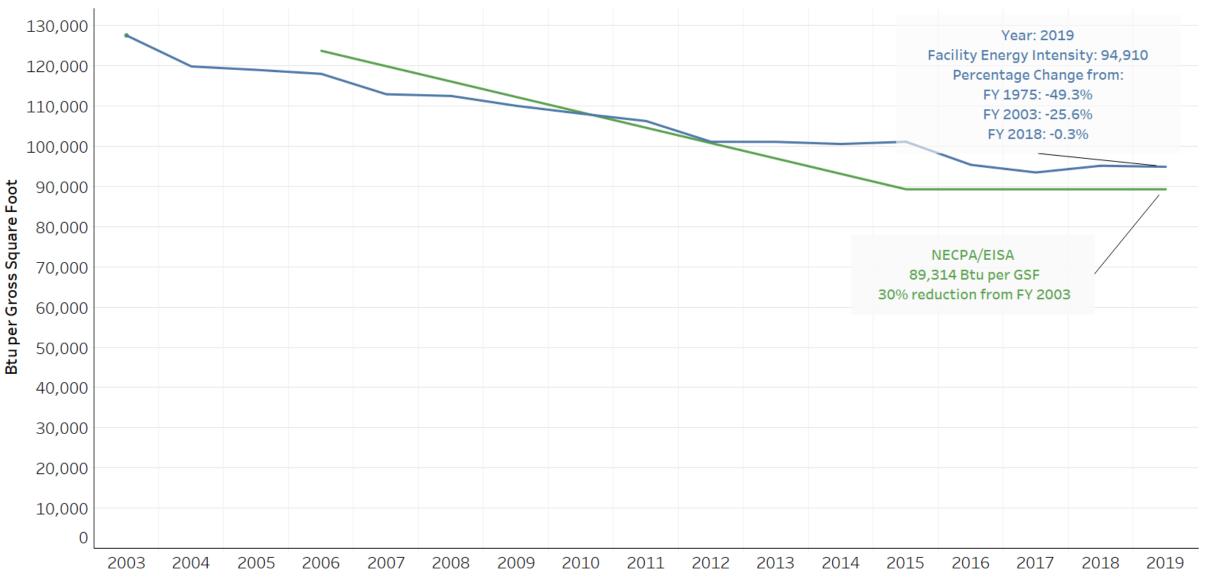
# FY 2019 Government-Wide Performance Findings

- Facility energy intensity (Btu/Gross Square Foot) reductions
  - 25.6% reduction vs. 2003 goal is 30%
  - 0.3% decrease vs. 2018
- Efficiency investment in Federal facilities (\$1.2B total in FY 2019) decreased 34% from 2018
  - Direct funding investment: \$224 million in FY 2019
  - ESPC investment: \$901 million
  - UESC Investment: \$83 million
- Without the \$25.8 billion in efficiency investment from 2007-2019, estimated energy use in buildings would be 28 percent higher
  - Estimated return on \$25.8 billion invested: \$55.6 billion by 2030 (in 2019 constant dollars)
- Renewable electricity goal of 7.5% was exceeded (8.6% of electricity use)
- Potable water intensity reduction: 27.5% reduction vs. 2007, 0.4% reduction vs. 2018
- Scope 1&2 greenhouse gas emissions from standard operations declined by 27.9% vs. 2008, compared to a 27.5% reduction in 2018

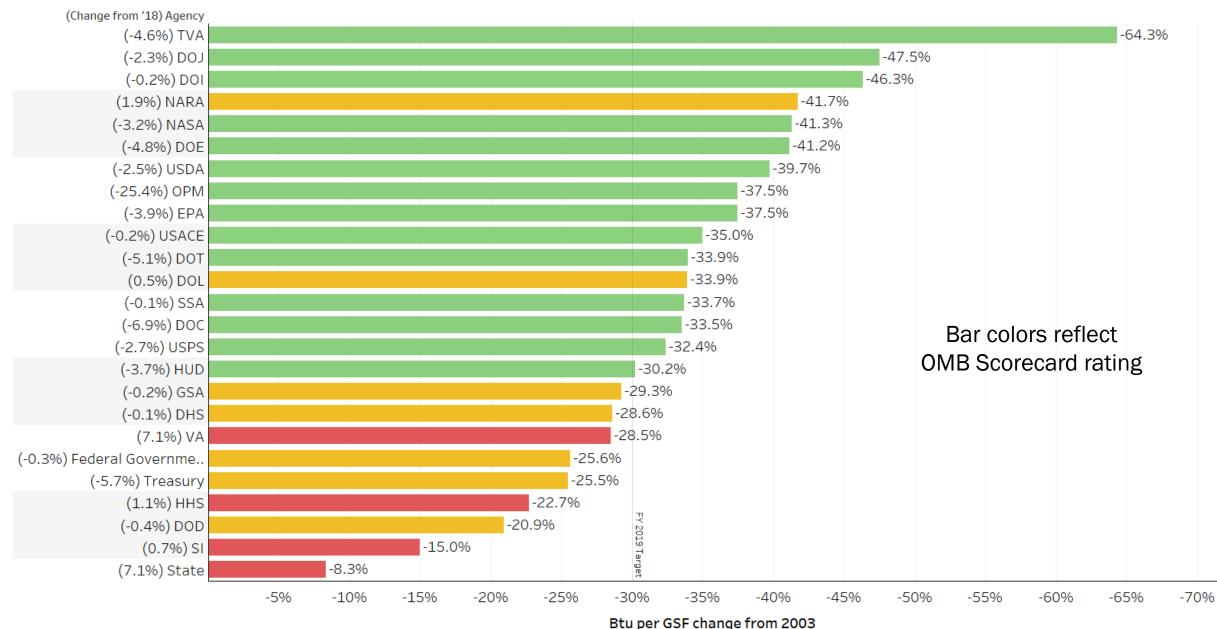
#### Federal Government Energy Use by Sector (FY 2007 - FY 2019)



Federal Government Progress Toward Facility Energy Efficiency Goals FY 2003 - FY 2019



#### Federal Agency Progress in Facility Energy Use Intensity Reduction, FY 2003 to FY 2019



## 2019 Goal Building Energy Use: 316 Trillion Btu, with Intensity and Reduction Progress versus 2003

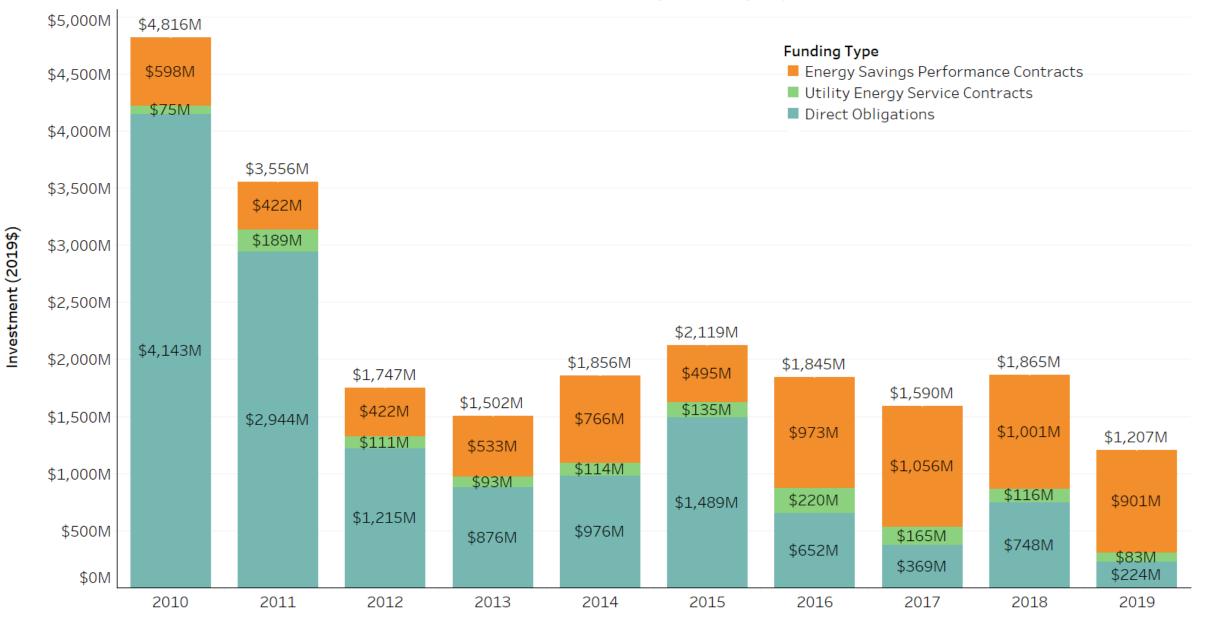
DOD -20.9%	VA -28.5%		USPS -32.4%	DOE -41.2%
Energy Intensity (Btu/GSF) 0 266,981	DOJ -47.5% TVA -64.3% SSA -33.7% GSA -29.3% NAR/	6 DOI-	NAS State -41. -8.3% HU DOC -30.3 -33.5%	3% -28.6% OPM -37.5% EPA -37.5%
	-41.79 USACE -35.0%	% Other	DOL DA -33.9%	

FY 2019 Federal Agency Investment in Energy Efficiency and Renewable Energy

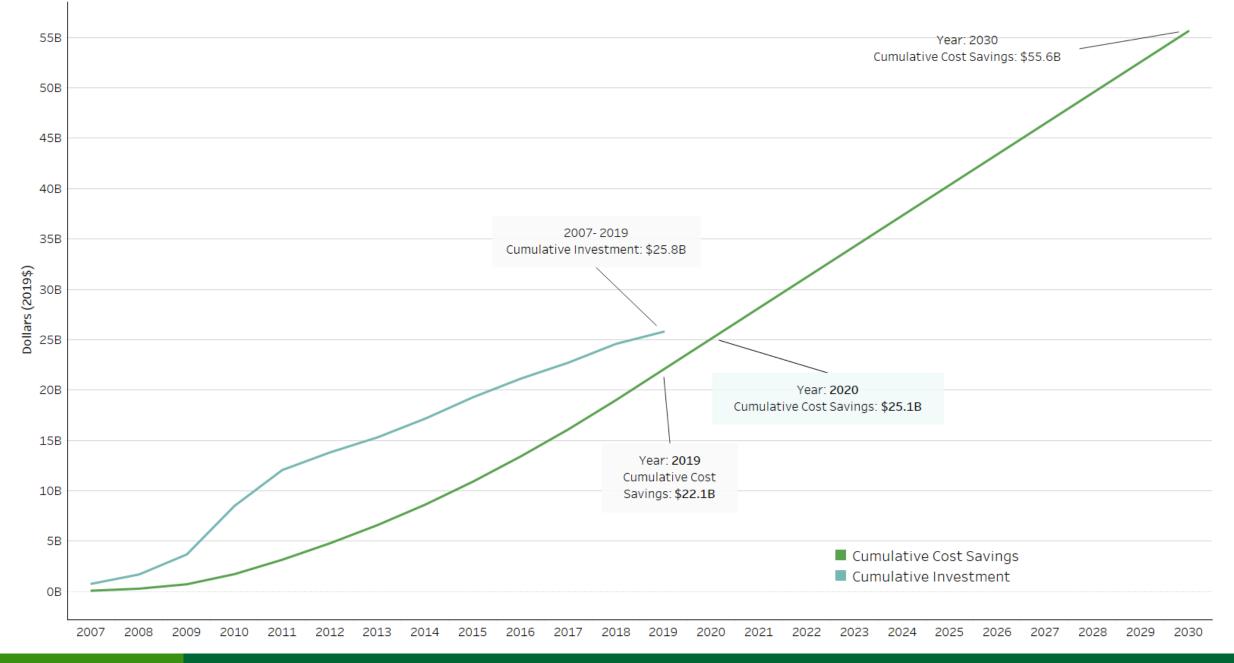
DOD							
VA	\$119.6M				Funding	Type	
DOE \$40.3M EPA \$33.4M			Agency	Direct Obligation	UESC	ESPC	Total
DOJ \$27.0M			DOD	\$79.7M	\$24.1M	\$797.6M	\$901.4M
NASA \$26.2M			VA	\$36.7M	\$52.4M	\$30.4M	\$119.6M
DOI \$14.2M			DOE	\$8.4M	\$0.0M	\$31.9M	\$40.3M
			EPA	\$33.4M	\$0.0M	\$0.0M	\$33.4M
HHS \$12.4M			DOJ	\$1.6M	\$0.0M	\$25.4M	\$27.0M
GSA \$8.9M			NASA	\$7.5M	\$4.7M	\$14.0M	\$26.2M
TVA \$4.9M			DOI	\$14.1M	\$0.1M	\$0.0M	\$14.2M
USDA \$4.3M			HHS GSA	\$12.4M \$7.9M	\$0.0M \$0.0M	\$0.0M \$0.9M	\$12.4M \$8.9M
			DHS	\$0.2M	\$0.0M	\$0.9M	\$0.2M
USACE \$4.1M			TVA	\$4.9M	\$0.0M	\$0.0M	\$4.9M
SSA <mark>\$</mark> 3.3M			USDA	\$4.3M	\$0.0M	\$0.0M	\$4.3M
DOT \$2.8M			USACE	\$4.1M	\$0.0M	\$0.0M	\$4.1M
State \$1.7M			SSA	\$3.3M	\$0.0M	\$0.0M	\$3.3M
DOL \$1.6M			DOT	\$2.8M	\$0.0M	\$0.0M	\$2.8M
			State	\$0.0M	\$1.7M	\$0.0M	\$1.7M
TRSY \$0.6M			DOL	\$1.6M	\$0.0M	\$0.0M	\$1.6M
SI \$0.3M			TRSY	\$0.1M	\$0.0M	\$0.5M	\$0.6M
DHS \$0.2M			SI	\$0.3M	\$0.0M	\$0.0M	\$0.3M
DOC \$0.2M			DOC	\$0.2M \$0.0M	\$0.0M	\$0.0M	\$0.2M
USPS \$0.0M			USPS OPM	\$0.0M	\$0.0M \$0.0M	\$0.0M \$0.0M	\$0.0M \$0.0M
	Funding Type		NARA	\$0.0M	\$0.0M	\$0.0M	\$0.0M
OPM \$0.0M	ESPC		HUD	\$0.0M	\$0.0M	\$0.0M	\$0.0M
NARA \$0.0M	UESC		Education		\$0.0M	\$0.0M	\$0.0M
HUD \$0.0M			Total	\$223.7M	\$83.0M	\$900.7M	
ducation \$0.0M	Direct Obligation						
-	5100M \$200M	\$300M \$400M	\$500M	\$600M	\$700M	\$80	0M \$9
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Amount

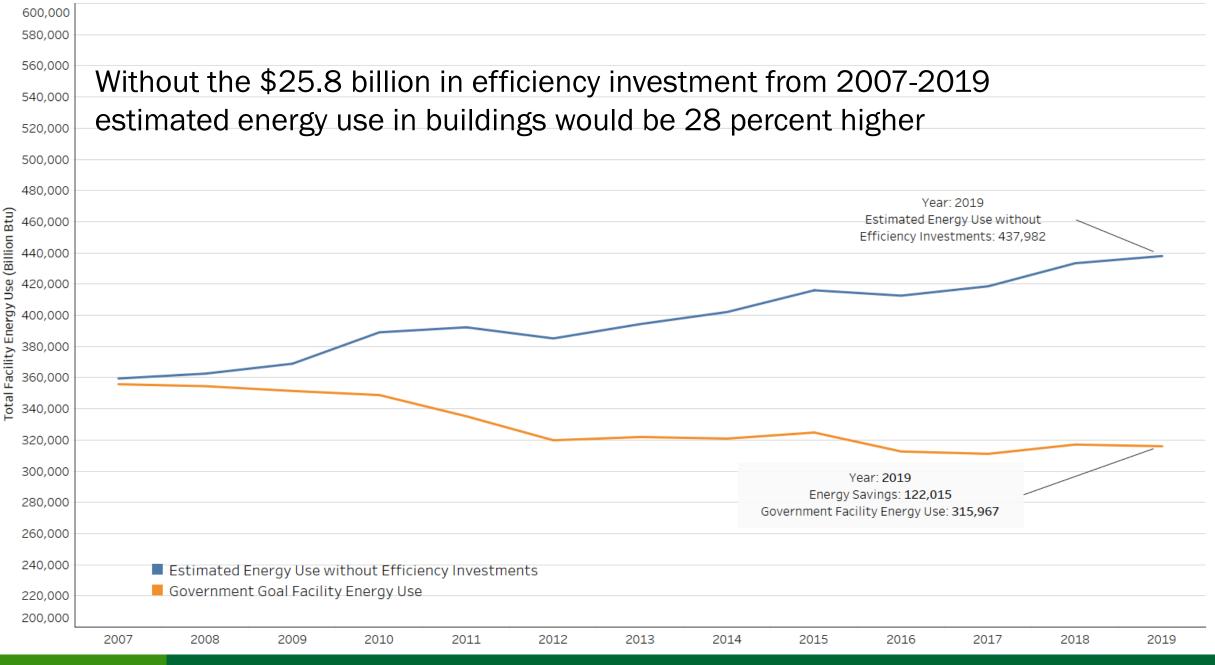
Federal Government Investment in Facility Efficiency Improvements



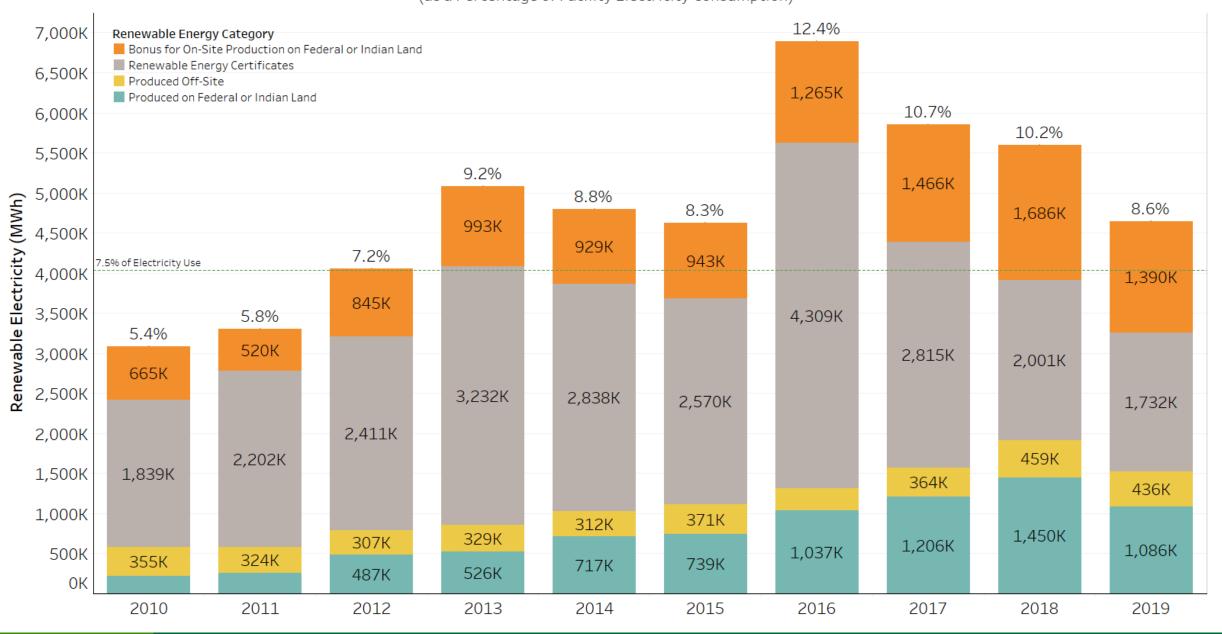
#### Savings Return on Federal Facility Energy Efficiency Investment of \$25.8 Billion (from FY 2007-2019)



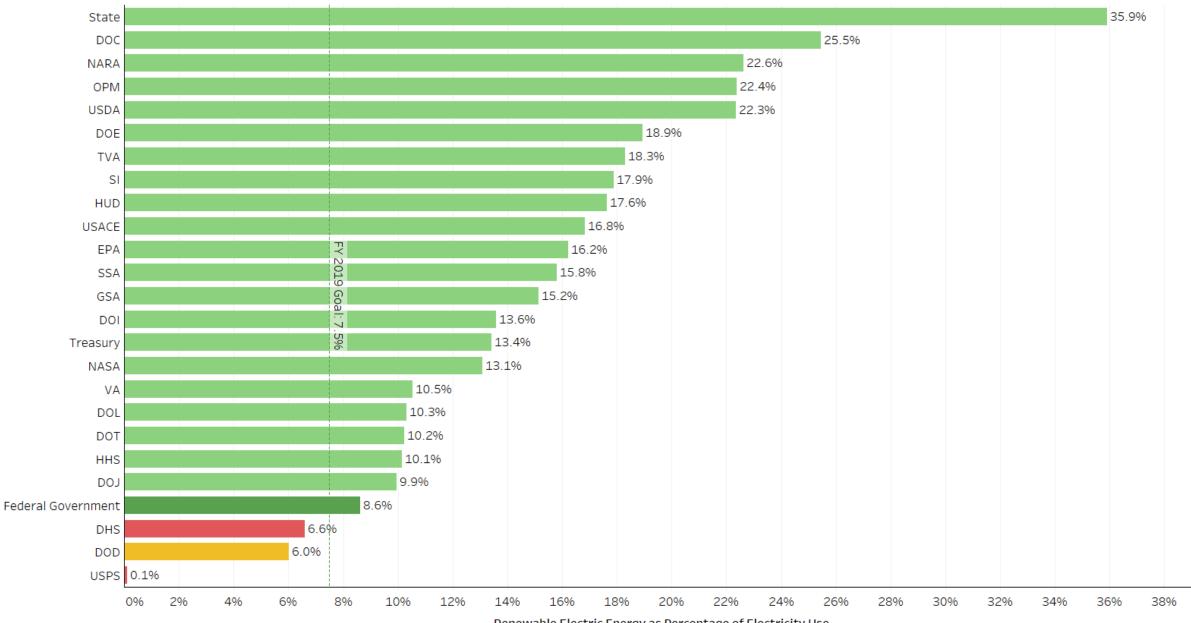
#### Impact of Federal Facility Energy Efficiency Investments on Energy Use



#### Federal Government Renewable Electricity Use (as a Percentage of Facility Electricity Consumption)



FY 2019 Renewable Electricity Use as a Percentage of Electricity Consumpton

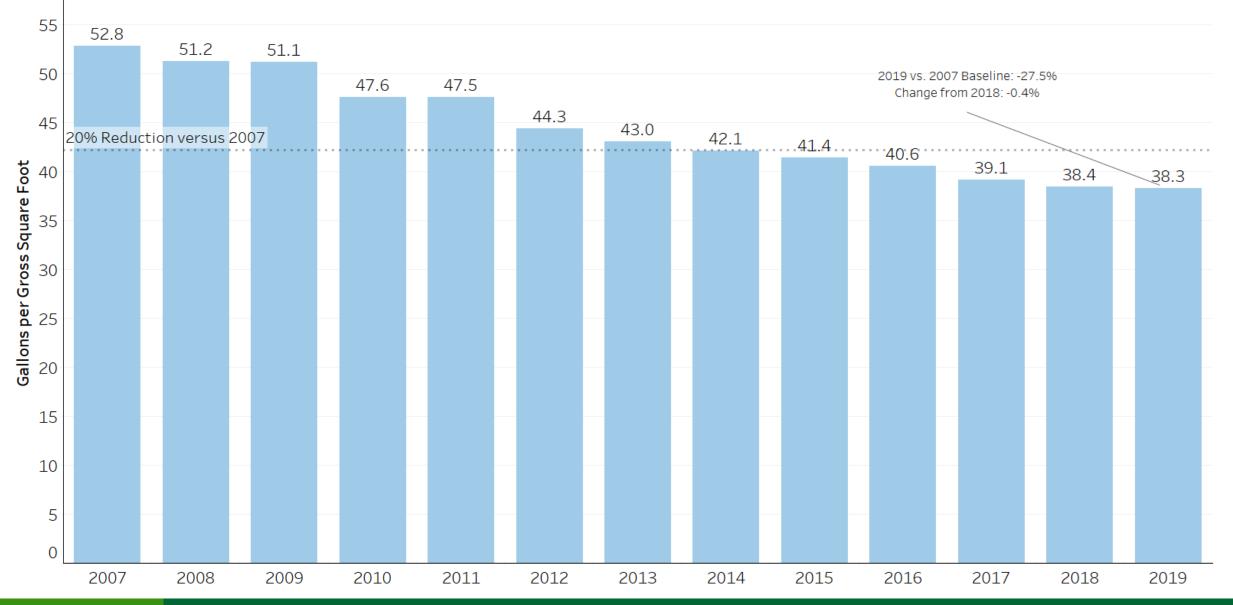


Renewable Electric Energy as Percentage of Electricity Use

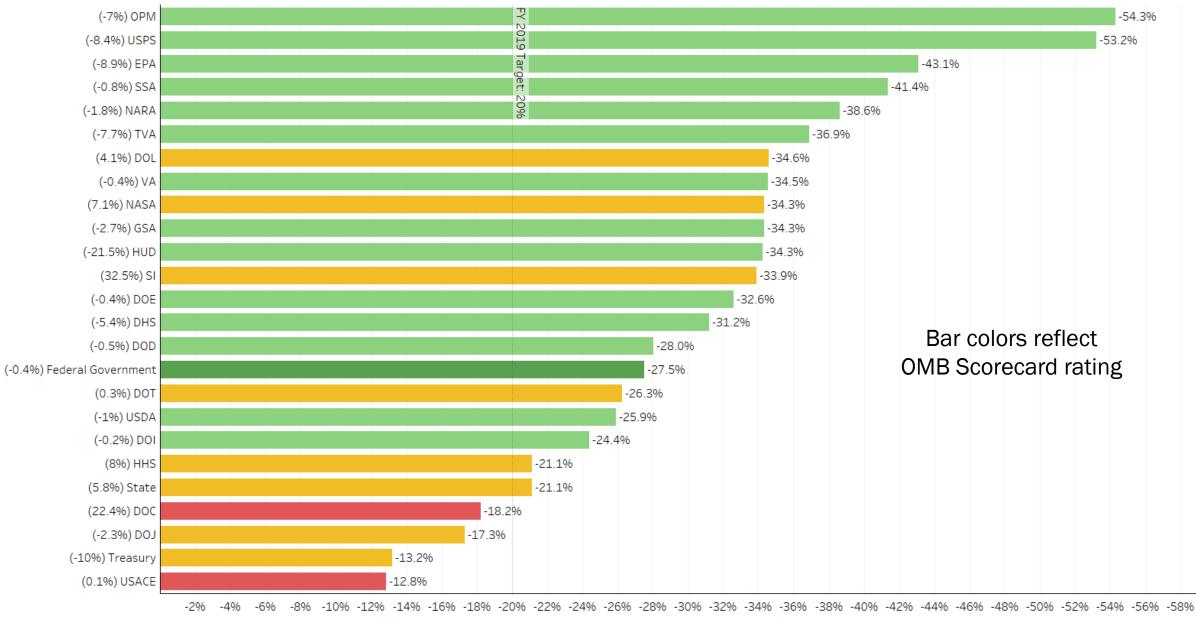
### FY 2019 Renewable Electricity Use and Percentage of Electricity Consumption: 4.6 Million MWh

DOD	VA		GSA		
6.0%	10.5%		15.2%		
	NASA	DOT	USDA	HHS	
	13.1%	10.2%	22.3%	10.1%	
DOE	DOJ	DOI	DHS	State	
18.9%	9.9%	13.6%	6.6%	35.9%	
	DOC 25.5%	TVA 18.3%	TRSY 13.4% SI	SSA 15.8%	
Renewable Percentage 0.0%	23.370	USACE 16.8%	17.9%	EPA NARA 16.2% 22.6%	

## Federal Government Potable Water Intensity (Gallons per Gross Square Foot)



Federal Agency Progress in Potable Water Intensity FY 2007 to FY 2019

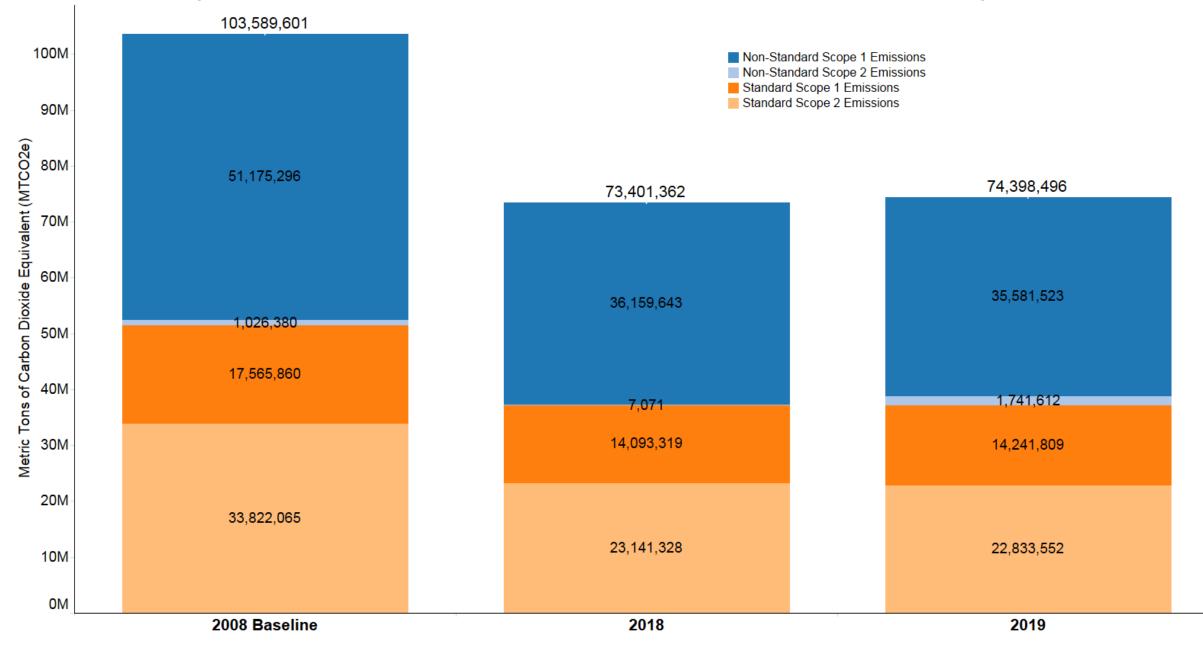


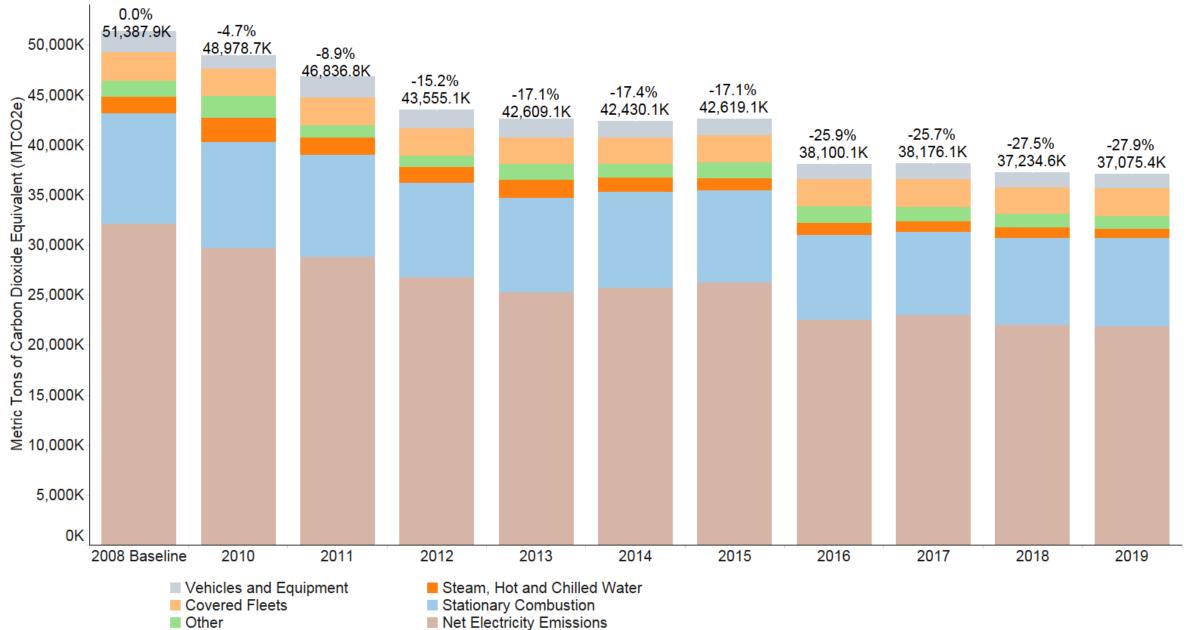
Percentage Change in Potable Water Intensity

## 2019 Potable Water Use: 122 Billion Gallons Used, with Intensity and Reduction Percentage versus 2007

DOD -28.0%	DOJ -17.3%		VA -34.5%	
	DOE -32.8%		GSA -31.0%	NASA -34.3%
	-32.8%	SSA	-31.0%	-34.3%
		-41.496		
			ннс	DHS USDA
		EPA -43.3% NARA	HHS -21.1% DO <sup>-</sup> -26.3	-31.2% -25.9% T
Water Intensity (Gallons per GSF) 8.2 116.5	DOI -24.4%	-38.696		SI -33.9%
			DOL	TVA Stabe.9%
		OPM -1	-34.6% TRSY 3.2%	
	USPS -53.2%	DOC HUD	USACE	
		-17.6%-34.3%	*****	·····

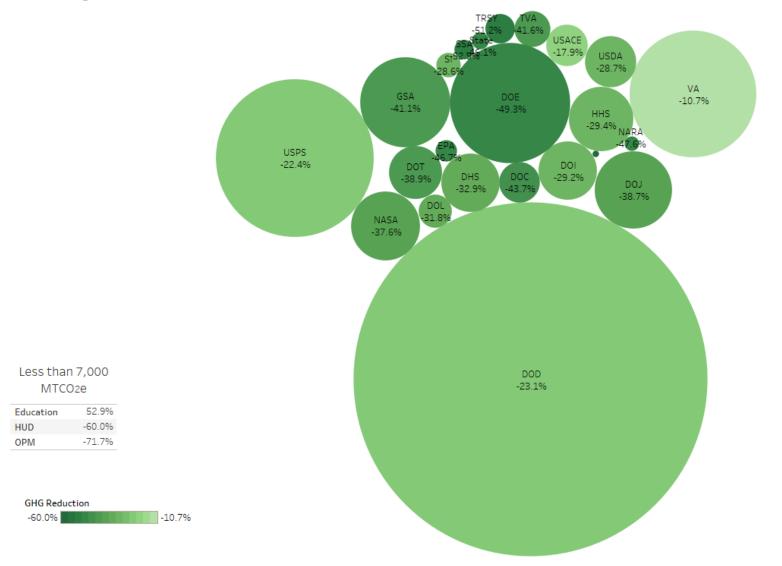
### Scope 1 and 2 Greenhouse Gas Emissions from Federal Standard and Non-Standard Operations





#### Federal Government Scope 1 and 2 Standard Greenhouse Gas Emissions from Standard Operations

2019 Greenhouse Gas Emissions from Standard Operations: 37.0 Million Metric Tons of Carbon Dioxide Equivalent (MTCO2e) with Reduction Percentage versus 2008



## **Data Links**

- <u>https://www.energy.gov/eere/femp/federal-facility-annual-energy-reports-and-performance</u>
   Current published annual data set (FY 2019)
- <u>https://www.sustainability.gov/performance.html</u>
   Agency scorecards, progress data, annual sustainability report and implementation plans
- <u>https://www.energy.gov/eere/femp/eisa-federal-covered-facility-management-and-benchmarking-data</u> EISA covered facility data