



The Premier Energy Training Workshop  
and Trade Show for Federal Agencies

**A River of Energy Solutions**

# **Federal Requirements, Know Your Customer Needs**

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# Agenda

- Who is The Exchange?
- Federal Requirements
- How is The Exchange meeting the Policies
- Know your Customer
- A tool to Understand and Organize Federal Policies



# Global Retailer

**\$10B Revenue**

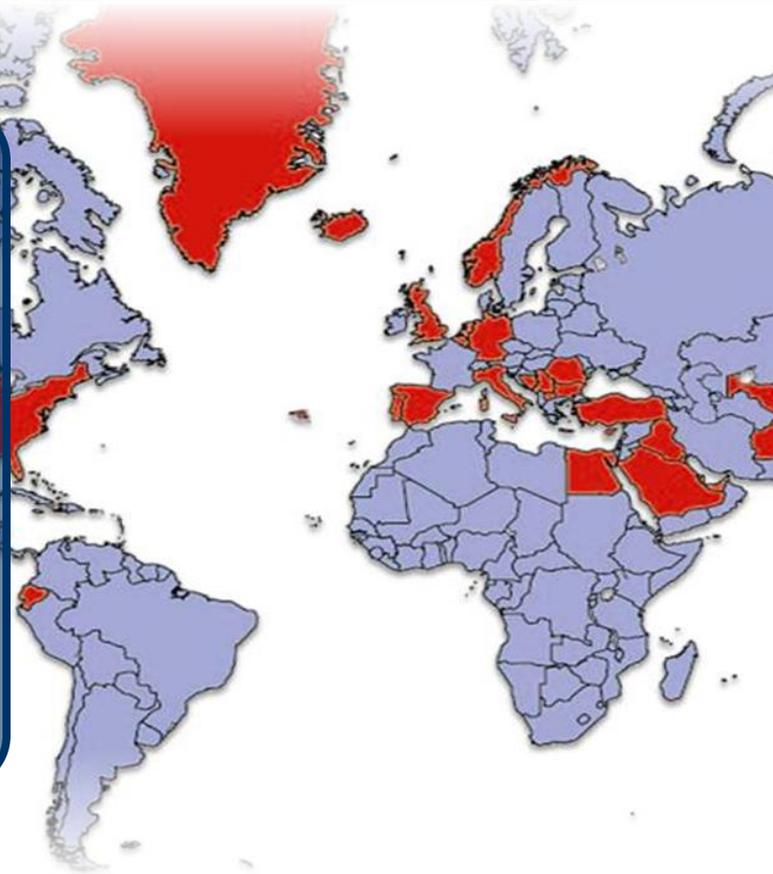
**3100+ facilities**

**Proprietary Credit Card**

**Water and Bread Plants**

**Worldwide Logistics  
Supply Chain**

**Catalogs**



**50 – US States – 19 May**

**5 – US Territories**

**30+ Countries**

**185 Main Stores**

**92 Contingency Stores**

**192 Shoppettes**

**Over 5,000  
Services and vendors**

**1836 Specialty Stores**

- **Class Six**
- **Box Office Video**
- **Bookmark**

**772 Military  
Clothing Stores**



# For 116 Years, We've Been There



two world wars...

From Sutlers' tents  
to frontier stores...



Korea, Vietnam...



and today's new  
challenges



# How is the Money Spent



- ✓ **MWR Dividends**
- ✓ **Civilian Salaries**
- ✓ **Store Inventories**
- ✓ **Utilities**
- ✓ **Capital Investments**
- ✓ **Store Improvements**
- ✓ **Vehicles**
- ✓ **Distribution**
- ✓ **Operations**
- ✓ **Military Salaries**
- ✓ **Overseas Shipping**
- ✓ **Overseas Utilities**
- ✓ **Military Phone Ops**
- ✓ **OEF/OIF Support**

# 2010 Dividend Distribution



\$267.9 Million  
to MWR



**Army**  
**\$158.1 Million**



**Air Force**  
**\$90.6 Million**



**National Guard**  
**\$6.8 Million**



**Navy**  
**\$1.0 Million**



**Marines**  
**\$11.4 Million**

# Conserving Resources

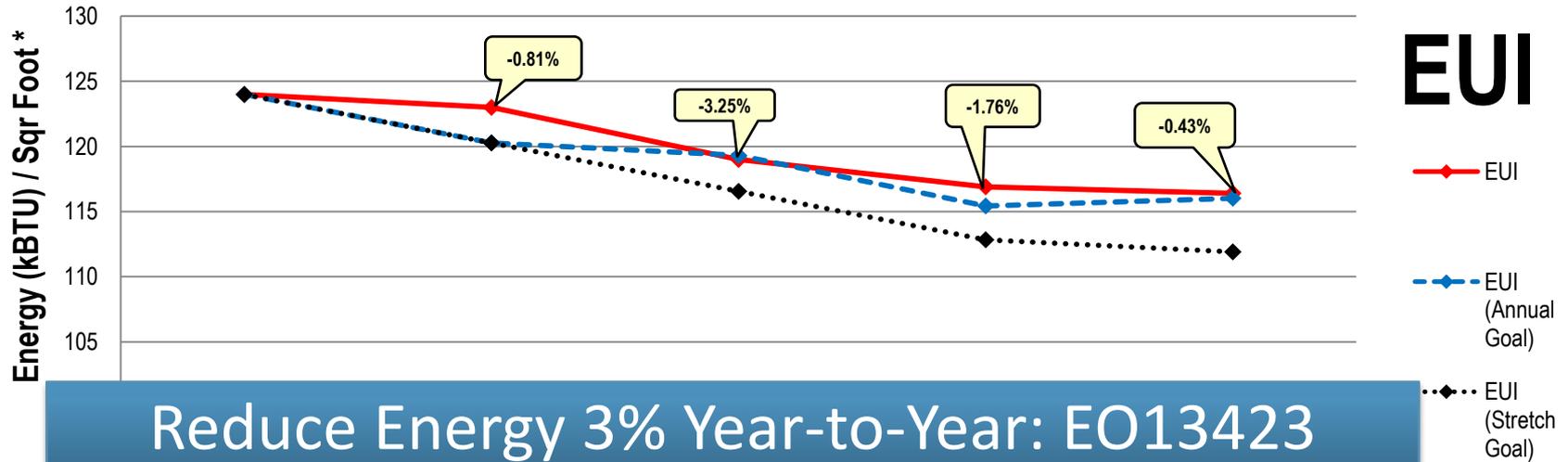


## Strategic Sustainability Goals

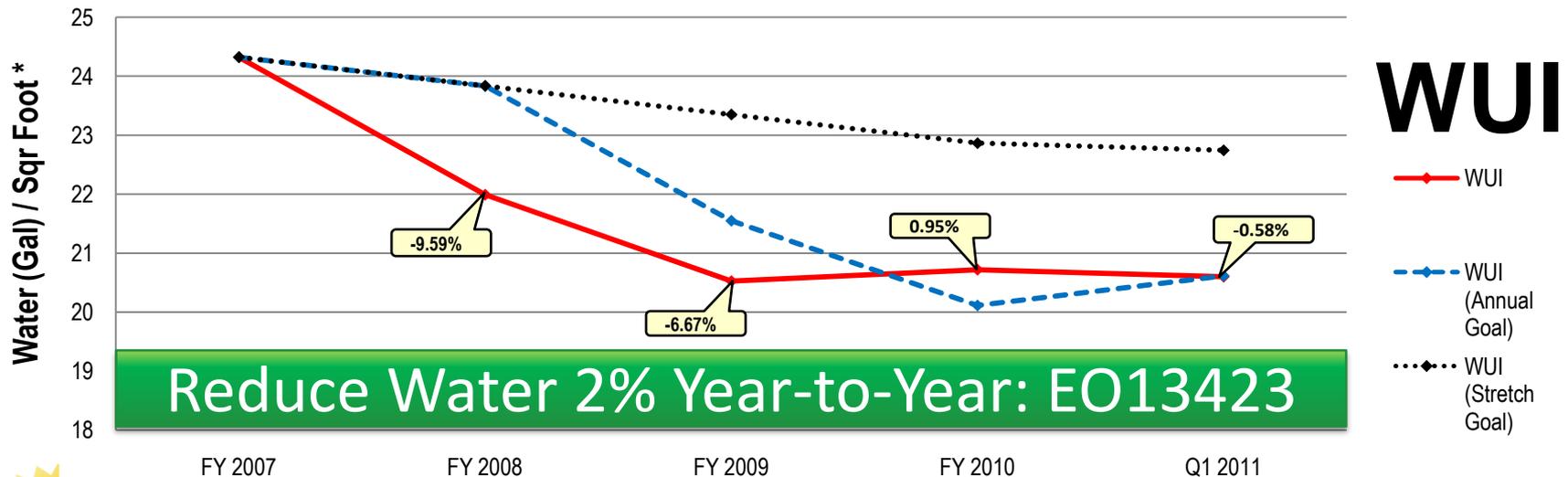
- Reduce Energy Consumption
- Reduce Water Consumption
- Reduce Waste
- Reduce Fleet Dependency on Fossil Fuels
- Increase Sustainable Buildings
- Increase Procurement, Marketing, Sales of Environmentally-Friendly Goods and Services



# Reduce Energy & Water Intensity



\* Includes metered data only excluding DCs and Data Center (59% of active CONUS sites)



# Reduce Waste

## FY10 Recycling Results:

- ✓ Rolled out recycle program to 152 CONUS stores.
- ✓ Increased recycled tonnage by 63%.  
FY09: 4,573 tons                      FY10 7,293 tons
- ✓ Generated income of \$672,000



## Recycled/Reusable Bags:

- ✓ FY10 sold 218,000 bags diverting 466,930 from landfill
- ✓ Implemented 5 cent refund program for each bag used
- ✓ \$23,350 has been credited to customers



## Recycled Cooking Oil:

- ✓ FY10 2million pounds diverted
- ✓ 290 food facilities participating

# Increase Sustainable Buildings

New Construction: LEED Silver registered and certifiable, 10% to achieve formal LEED Silver Certification

✓ 4 projects achieving LEED certification

- ➔ **Randolph** Shopping Center
- ➔ **Ft Polk** Shopping Center
- ➔ **Ft Bragg** Express
- ➔ **Ft Bliss** Lifestyle Center- received certification June 2011



Randolph AFB Shopping Center



Ft. Polk Shopping Center



Ft. Bragg Pines Shoppette



Ft. Bliss Lifestyle Center

# Sustainability Efforts



LED Upgrades



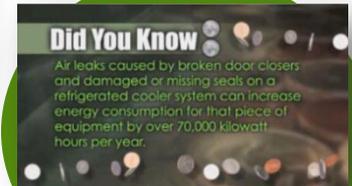
Energy Star Partner



34 Projects Registered



CFL Policy



Energy Training



Award Recognition

**WORKING TOGETHER  
TO MAKE A  
DIFFERENCE**



AAFES Sustainability Brochure & Website



Earth Friendly Products



Recycling Programs



Greener Fleet



Green to Go.



Green Bags



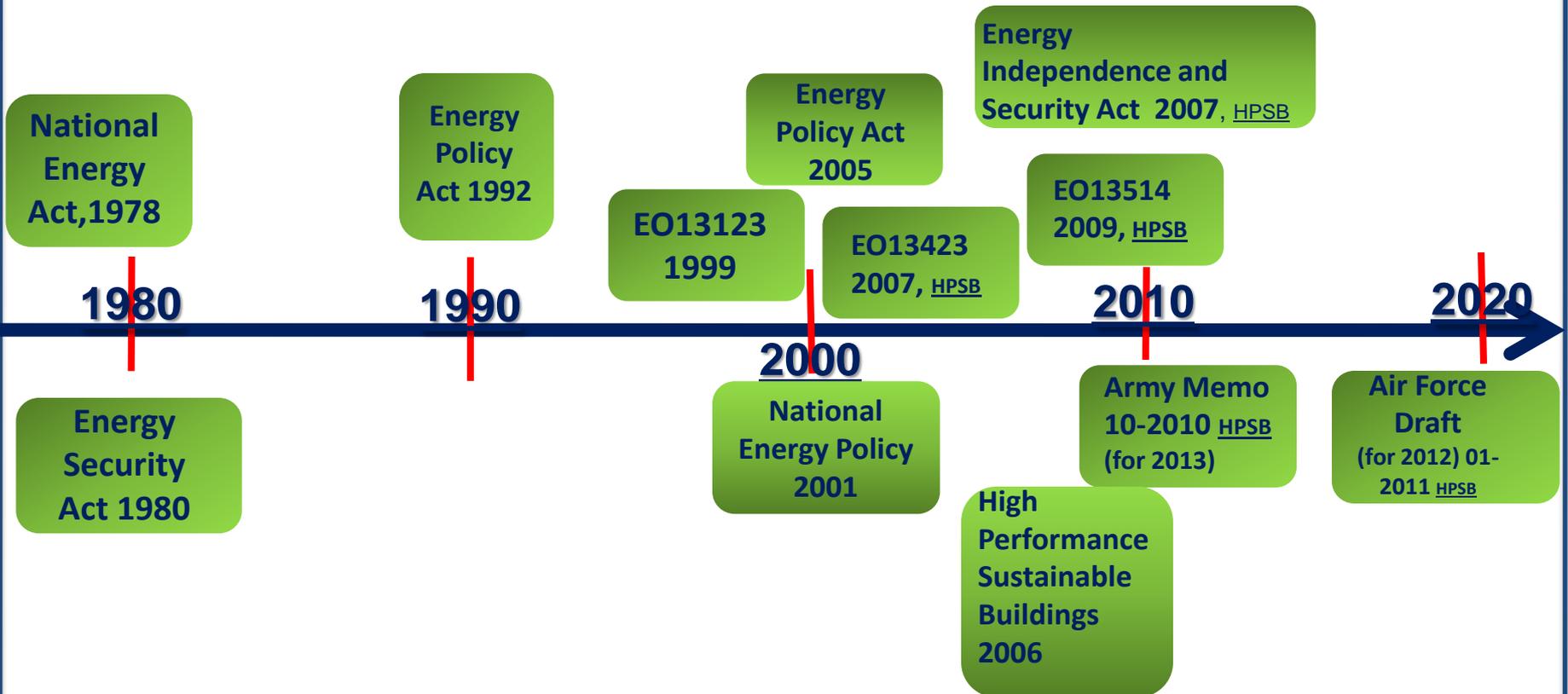
Utility Tracking System  
\$5 Million Savings

# Know your customer

- Who is your customer?
- What are their requirements?
- How does your product or service relate?
- Do you know their language?
  - EUI, WUI, HOA, PID, LCCA
  - IMCOM, AFCESSA, CE, MUA, . . . . .
- **Credibility IS important!**
  - Missing information
  - Incorrect information
  - Overly optimistic or pessimistic assumptions
  - Follow through with promises



# Policies, Time Line



- LEED, required by Army and USAF, is current focus
- Few current vendors know Federal requirements

# Typical Federal Policy questions

- What are energy and water reduction goals?
- What baselines are required?
- What % of Federal Buildings should get Energy Audits each year?
- How do buildings get selected?
- In new construction, what % of hot water is required to be provided by solar?
- Is M and V required?

# Life Cycle Cost Analysis

- Many systems available and used
  - GIGO! DON'T LEAVE COSTS OUT!
- Policies require use of FEMP BLCC
  - UFC 3-400-01 2-5.2
  - 10 CFR 436-18(b) "Federal agencies performing LCC analysis on computers shall use either the Federal Buildings Life Cycle Costing (FBLCC) software provided by DOE or software consistent with this subpart."
- [http://www1.eere.energy.gov/femp/information/download\\_blcc.html](http://www1.eere.energy.gov/femp/information/download_blcc.html)
  - Free
  - Thorough
  - Shows your Federal customers that you know and meet their requirements

The screenshot shows the FEMP website with a green header and navigation menu. The main content area is titled "Building Life-Cycle Cost (BLCC) Programs" and includes a list of publications and a list of modules.

U.S. DEPARTMENT OF ENERGY | Energy Efficiency & Renewable Energy

## Federal Energy Management Program

HOME ABOUT THE PROGRAM PROGRAM AREAS LAWS & REGULATIONS INFORMATION RESOURCES FINANCING MECHANISMS

EERE » Federal Energy Management Program » Information Resources

Publications

Software

Handling Self-Extracting Archives

Conferences

Glossary

### Building Life-Cycle Cost (BLCC) Programs

The National Institute of Standards and Technology (NIST) developed the Building Life-Cycle Cost (BLCC) Program to provide computational support for the analysis of capital investments in buildings. BLCC features several components, including:

- [Building Life-Cycle Cost Program](#)
- [Energy Escalation Rate Calculator](#)
- [Handbook 135](#)
- [Annual Supplement to Handbook 135](#)

### Building Life-Cycle Cost Program

[Register and download](#) BLCC 5.3-10 (for PC only). If you would like BLCC 5.3 for Mac OS X or Linux, please e-mail [amy.rushing@nist.gov](mailto:amy.rushing@nist.gov).

BLCC is programmed in Java with an XML file format. The user's guide is part of the BLCC Help system. BLCC version 5.3-10 contains the following six modules:

1. **FEMP Analysis; Energy Project:** For energy and water conservation and renewable energy projects under the FEMP rules based on 10 CFR 436.
2. **Federal Analysis; Financed Project:** For Federal projects financed through energy savings performance contracts (ESPCs) or utility energy services contracts (UESCs).
3. **OMB Analysis:** Projects subject to the Office of Management and Budget (OMB) Circular A-94 for non-energy, Federal Government construction projects, but not

# Basic Policy Information

Source	Summary	Complete Document	Location
EO13423	Reduce EUI by: 1) 3% annually beginning 2007 when policy signed OR 2) 30% from 2003 baseline by 2015	Goals for Agencies. In implementing the policy set forth in section 1 of this order, the head of each agency shall: (a) improve energy efficiency and reduce greenhouse gas emissions of the agency, through <u>reduction of energy intensity by (i) 3% annually through the end of fiscal year 2015 or (ii) 30% by the end of fiscal year 2015, relative to the baseline of the agency's energy use in fiscal year 2003</u>	§2(a)
EO13423	50% energy from renewables	Goals for Agencies. In implementing the policy set forth in section 1 of this order, the head of each agency shall: (b) ensure that (i) <u>at least half of the statutorily required renewable energy consumed by the agency in a fiscal year comes from renewable sources.</u>	§2(b)(i)
EO13423	Energy, Renewable: Implement renewable energy generation on agency property.	Goals for Agencies. In implementing the policy set forth in section 1 of this order, the head of each agency shall: (b) ensure that (ii) <u>to the extent feasible, the agency implements renewable energy generation projects on agency property for agency use.</u>	§2(b)(ii)
EO13423	Water, Reduction: Reduce WUI by 2%/yr	Goals for Agencies. In implementing the policy set forth in section 1 of this order, the head of each agency shall: (c) beginning in FY 2008, <u>reduce water consumption intensity, relative to the baseline of the agency's water consumption in fiscal year 2007, through life-cycle cost-effective measures by 2% annually through the end of fiscal year 2015 or 16% by the end of fiscal year 2015.</u>	§2(c)
EO13423	Use of recycled and environmentally friendly products.	Goals for Agencies. In implementing the policy set forth in section 1 of this order, the head of each agency shall: (d) require in agency acquisitions of goods and services (i) <u>use of sustainable environmental practices, including acquisition of biobased, environmentally preferable, energy efficient, water-efficient, and recycled-content products.</u>	§2(d)

# Created Categories

USED FOR:

- Data Validation (Data, Data Validation)
- Filtering (Home, Sort and Filter)

	A	B	C	D	E
1		<b>Policies</b>			
2	<b>Who</b>	<b>Entity</b>	<b>Service</b>	<b>Action</b>	<b>Source</b>
3	Administration	Bldgs or Vehicles	Energy, Consumption	Awards	EO13423
4	Agency Goal	Bldgs, all	Energy, Renewable	Compliance	HiPerfSustBldg
5	Agency Head	Bldgs, Existing only	Commissioning	Compliance To Ext Policy	EPAct2005
6	Energy Manager	Bldgs, Major Const only	Daylight	Control	EISA2007
7	Management	Bldgs, New only	EnergyMgmtSystem	Energy Star, FEMP, EPEAT	Army FY10 Narrative Funding Guidance
8	Tenant	Bldgs, New Or Major Const.	Fossil Fuel	Increase	
9	Each Federal Agency	Fleets	Goods and Svcs	Metering	AFI 32-1061 (15 Mar 2002)
10	Not Specified	Energy Or Water Saving Measure	Indoor Air Quality	Performance targets	AFI 34-211(I) (30 Jul 2008)
11	Air Force		Moisture	Reduce	AFI 65-106 (6 May 2009)
12	Army		OzoneDepleting	Reporting	AR 215-1 (31 Jul 2007)
13			Programs	Sustainable practice	AR 215-8 (30 Jul 2008)
14			Toxic Hazardous Mtls	Training	AR 420-41 (15 Sep 1990)
15			Waste	Evaluation	DODI 1015.15 (20 Mar 2008)
16			Water	Meet Guiding Principals of Hi Performance Bldgs	DODI 1330.09 (7 Dec 2005)
17			Water Runoff	LEED requirement	Air Force Sustainable Design and Development (SDD) Policy (31 Jul 2007)
18			Energy and Water	Cost justifications	ARMY AFI 34-211
19			Maintenance	Continuance	AFI 65-106 (6 May 2009)
20			Environmental Mgmt Sys		AFI 65-106 (11 Apr 2006)
21			Water Heating		
22					

# Add index categories, cell validation

	A	B	C	D	E	F	G	H
	Who	Entity	Service	Action	Source	Summary	Complete Document	Location
1	Energy Manager	Bldgs, all	Energy and Water	Evaluation	EISA2007	Energy Evaluations of 25% of the facilities every 4 yrs for > 75% of agency facility energy.	“(B) COVERED FACILITIES.—The Secretary shall develop criteria, after consultation with affected agencies, energy efficiency advocates, and energy and utility service providers, that cover, at a minimum, Federal facilities, including central utility plants and distribution systems and other energy intensive operations, that constitute <u>at least 75 percent of facility energy use at each agency.</u> ” “(3) ENERGY AND WATER EVALUATIONS.—” “(A) EVALUATIONS.—Effective beginning on the date that is 180 days after the date of enactment of this subsection and annually thereafter, energy managers shall complete, for each calendar year, a comprehensive energy and water evaluation for approximately 25 percent of the facilities of each agency that meet the criteria under paragraph (2)(B) in a manner that ensures that an evaluation of each such facility is completed at least once every 4 years.	\$432(3)(A), p118
88	Energy Manager	Bldgs, all	Commissioning	Reduce Reporting Sustainable pract Training Evaluation Meet GuidingPrin LEED requirem Cost justification	A2007	Assess need for recommissioning and recommissioning	“(B) COVERED FACILITIES.—The Secretary shall develop criteria, after consultation with affected agencies, energy efficiency advocates, and energy and utility service providers, that cover, at a minimum, Federal facilities, including central utility plants and distribution systems and other energy intensive operations, that constitute at least 75 percent of facility energy use at each agency.” “(3) ENERGY AND WATER EVALUATIONS.—” “(B) RECOMMISSIONING AND RETROCOMMISSIONING.—As part of the evaluation under subparagraph (A), the energy manager shall identify and assess recommissioning measures (or, if the facility has never been commissioned, retrocommissioning measures) for each such facility.	\$432(3)(B), p118
89	Energy Manager	Energy Or Water Saving Measure	Programs		EISA2007	Energy manager may implement and bundle and implement energy and water saving measures within 2yrs.	“(4) IMPLEMENTATION OF IDENTIFIED ENERGY AND WATER EFFICIENCY MEASURES.—Not later than 2 years after the completion of each evaluation under paragraph (3), each energy manager may—” “(A) implement any energy- or water-saving measure that the Federal agency identified in the evaluation conducted under paragraph (3) that is life cycle cost-effective; and “(B) bundle individual measures of varying paybacks together into combined projects.	\$432(4)(A)+(B), p118
90	Energy Manager	Energy Or Water Saving Measure	Commissioning	Compliance	EISA2007	Commissioning of each energy saving measure implemented.	“(5) FOLLOW-UP ON IMPLEMENTED MEASURES.—For each measure implemented under paragraph (4), each energy manager shall ensure that—” “(A) equipment, including building and equipment controls, is fully commissioned at acceptance to be operating at design specifications; “(B) a plan for appropriate operations, maintenance, and repair of the equipment is in place at acceptance and is followed; “(C) equipment and system performance is measured during its entire life to ensure proper operations, maintenance, and repair; and “(D) energy and water savings are measured and verified.	\$432(5), p118
91	Energy Manager	Energy Or Water Saving Measure	Maintenance	Compliance	EISA2007	Plan for operations, maintenance and repair of each energy saving	“(5) FOLLOW-UP ON IMPLEMENTED MEASURES.—For each measure implemented under paragraph (4), each energy manager shall ensure that—” “(A) equipment, including building and equipment controls, is fully commissioned at acceptance to be	\$432(5), p118

# Federal Policies

	A	B	C	D	E	F	G	H
	Who	Entity	Service	Action	Source	Summary	Complete Document	Location
1	Agency Head				EO13423	Reduce EUI by: 1) 3% annually beginning 2007 when policy signed OR 2) 30% from 2003 baseline by 2015	<i>Goals for Agencies:</i> In implementing the policy set forth in section 1 of this order, the head of each agency shall: (a) improve energy efficiency and reduce greenhouse gas emissions of the agency, through <u>reduction of energy intensity by (i) 3% annually through the end of fiscal year 2015 or (ii) 30% by the end of fiscal year 2015, relative to the baseline of the agency's energy use in fiscal year 2003</u>	\$2, (a)
2	Agency Head				EO13423	Water, Reduction: Reduce WUI by 2%/yr	<i>Goals for Agencies:</i> In implementing the policy set forth in section 1 of this order, the head of each agency shall: (c) beginning in FY 2008, <u>reduce water consumption intensity relative to the baseline of the agency's water consumption in fiscal year 2007, through life-cycle cost-effective measures by 2% annually through the end of fiscal year 2015 or 16% by the end of fiscal year 2015.</u>	\$2, (c)
5	Agency Head				EO13423	Waste, reduce: Reduce quantity of toxic and hazardous chemicals.	<i>Goals for Agencies:</i> In implementing the policy set forth in section 1 of this order, the head of each agency shall: (e) ensure that the agency (i) <u>reduces the quantity of toxic and hazardous chemicals and materials acquired, used, or disposed of by the agency.</u>	\$2, (e)
8	Agency Head				EO13423	Increase recycling of solid waste.	<i>Goals for Agencies:</i> In implementing the policy set forth in section 1 of this order, the head of each agency shall: (e) ensure that the agency (ii) <u>increases diversion of solid waste as appropriate.</u>	\$2, (e)
9	Agency Head				EO13423	Maintain cost effective waste prevention and recycling.	<i>Goals for Agencies:</i> In implementing the policy set forth in section 1 of this order, the head of each agency shall: (e) ensure that the agency (iii) <u>maintains cost-effective waste prevention and recycling programs in its facilities.</u>	\$2, (e)
10	Agency Head	Bldgs, New Or Major Const.	Energy and Water	Meet Guiding Principles of Hi Performance Bldgs	EO13423	New construction and major renovations to meet Guiding Principles for Federal Leadership in High Performance and Sustainable Buildings.	<i>Goals for Agencies:</i> In implementing the policy set forth in section 1 of this order, the head of each agency shall: (f) ensure that (i) <u>new construction and major renovation of agency buildings comply with the <i>Guiding Principles for Federal Leadership in High Performance and Sustainable Buildings set forth in the Federal Leadership in High Performance and Sustainable Buildings Memorandum of Understanding (2006)</i>.</u>	\$2, (f)
11	Agency Head	Bldgs, all	Energy and Water	Meet Guiding Principles of Hi Performance Bldgs	EO13423	Sustainable Buildings: 15% of existing buildings incorporate Guiding Principles.	<i>Goals for Agencies:</i> In implementing the policy set forth in section 1 of this order, the head of each agency shall: (f) ensure that (ii) <u>15% of the existing Federal capital asset building inventory of the agency as of the end of fiscal year 2015 incorporates the sustainable practices in the Guiding Principles.</u>	\$2, (f)
12	Agency Head	Fleets	Fossil Fuel	Reduce	EO13423	Reduce petroleum by 2% annually.	<i>Goals for Agencies:</i> In implementing the policy set forth in section 1 of this order, the head of each agency shall: (g) ensure that, if the agency operates a fleet of at least 20 motor vehicles, the agency, relative to agency baselines for fiscal year 2005, (i) <u>reduces the fleet's total consumption of petroleum</u>	\$2, (g)

Sort A to Z  
Sort Z to A  
Sort by Color  
Clear Filter From "Action"  
Filter by Color  
Text Filters

- Evaluation
- Increase
- LEED requirement
- Meet Guiding Principles of Hi Performance Bldgs
- Metering
- Performance targets
- PerfTarget => >30% ASHRAE
- Reduce
- Reduction

OK Cancel