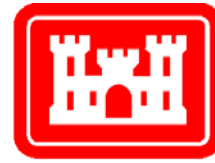




**Assistant Secretary
of the Army for
Civil Works**



**US Army Corps
of Engineers®**

2012 Sustainability Plan Public Version

16 November 2012

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DEPARTMENT OF THE ARMY
OFFICE OF THE ASSISTANT SECRETARY
CIVIL WORKS
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JUN 29 2012

MEMORANDUM FOR DEPUTY COMMANDING GENERAL, US ARMY CORPS OF ENGINEERS,
441 G STREET, N.W. WASHINGTON, DC 20314

SUBJECT: U.S. Army Corps of Engineers Sustainability Policy

I. References:

- a. Executive Order (E.O.) 13514, Federal Leadership in Environmental, Energy, and Economic Performance.
- b. E.O. 13423, Strengthening Federal Environmental, Energy, and Transportation Management.
- c. Energy Independence and Security Act of 2007 (EISA 2007).
- d. Energy Policy Act of 2005 (EPAAct 2005).
- e. U.S. Army Corps of Engineers Sustainability Plan (SP).

2. Purpose. This memorandum establishes policy regarding sustainability and the implementation of E.O. 13514.

3. Applicability. This policy applies to all aspects of U.S. Army Corps of Engineers activities to include contracted work; however, the sustainability outcomes supported on behalf of Federal customers will be accounted under those customers' reporting procedures.

4. Policy.

a. As a prominent Federal entity, a key participant in the use and management of many of the Nation's water resources, a critical team member in the design, construction, and management of military and civil infrastructure, and as responsible members of the Nation's citizenry, the U.S. Army Corps of Engineers (Corps) strives to protect, sustain, and improve the natural and manmade environment of our Nation and is committed to compliance with applicable environmental and energy statutes and EOs.

b. Executive Order 13514, states that sustainability means "to create and maintain conditions, under which humans and nature can exist in productive harmony, that permit fulfilling the social, economic, and other requirements of present and future generations." The EO emphasizes that sustainability should not only be a natural part of all Corps decision processes, but should also be part of our organizational culture. The Corps is a steward for some of the Nation's most valuable natural resources, and we must ensure our customers receive products and services that provide for sustainable solutions that address short and long-term environmental, social, and economic considerations.

c. The sustainability performance of the Corps will be evaluated against E.O. 13514, E.O. 13423, EISA 2007, EPAAct 2005, the U.S. Army Corps of Engineers Sustainability Plan, and other relevant executive and congressional directives. These goals will be integrated into our organizational strategic


guidance, which includes the Civil Works Strategic Plan and the U.S. Army Corps of Engineers Campaign Plan.

d. To achieve sustainability, I ask that a systems approach be employed, programmatic solutions sought, and performance metrics established for each area of concern and within each level of command. While systems analysis and programmatic solutions are important, our key to success will be the assignment and acceptance of personal responsibility for achieving a sustainable future by leaders throughout the organization.

e. Focus areas for funding in Fiscal Years 2012 and 2013 (FY12 and FY13) should include the following.

- Leverage \$2.5M in performance-based contracts for energy and water efficiency in Corps-owned facilities.
- Implement the Non-tactical Vehicle Fleet Management Plan.
- Create and implement the U.S. Army Corps of Engineers Sustainable Acquisition Program.
- Expand the High Performance Sustainable Buildings program to encompass Civil Works and Corps owned buildings.
- Complete energy and water evaluations of Covered Facilities pursuant to EISA 2007 Section 432.
- Create and implement the Corps' national policy on sea-level change for coastal projects and develop and deploy a national policy on adaptation measures for inland hydrology adaptation as described in the U.S. Army Corps of Engineers 2012 Climate Change Adaptation Plan and Report.

5. Compliance with sustainability requirements will be a challenge, especially in these early stages and with a constrained fiscal environment. However, it is just one of the challenges that the Corps faces regularly and one where I am confident that we cannot only meet the goals, but set standards for others to emulate. I believe that excelling in sustainability is not only good for the Nation and our posterity, but a sound business practice that will ease some of our future operations and maintenance expenses. I have every confidence that we will be successful.


Jo-Ellen Darcy
Assistant Secretary of the Army
(Civil Works)

CF:
LTG Thomas P. Bostick, Commanding General, US Army Corps of Engineers (USACE)
MG Michael J. Walsh, Deputy Commanding General for Civil and Emergency Operations
MG Kendall P. Cox, Deputy Commanding General for Military and International Operations
Mr. Steven L. Stockton, Director of Civil Works, USACE
Mr Robert E. Slockbower, Director of Military Programs, USACE

EXECUTIVE SUMMARY

The US Army Corps of Engineers (USACE) 2012 Sustainability Plan (SP) meets the Executive Order (EO) 13514, Federal Leadership in Environmental, Energy, and Economic Performance, Section 8 requirement to annually update an integrated Strategic Sustainability Performance Plan. The format of the SP is prescribed by the White House Council on Environmental Quality (CEQ) and developed and maintained in the Office of Management and Budget's (OMB) MAX Collect online system. An abbreviated version of the USACE 2012 SP will be posted to USACE's public web page once it has been approved by OMB and CEQ.

Section 1 of the SP describes the overall structure of the USACE Sustainability Program and how the plan is implemented via Operations Order throughout the organization. The Assistant Secretary of the Army for Civil Works (ASA(CW)) is the Senior Sustainability Officer and the Senior Point of Contact for Climate Change Adaptation for USACE. The ASA(CW) works with the Deputy Commanding General, USACE and the Environmental Community of Practice to lead the Strategic Sustainability Committee in driving improved sustainability performance. Sustainability performance is tracked through the USACE Campaign Plan using the Army Strategic Management System and existing management review processes.

Section 2 of the SP reviews performance and describes the challenges, best practices, and strategies associated with each of the eight sustainability goals. Of the eight goals addressed in the USACE SP, goals 1-7 are tracked by the Administration and key metric performance is released to the public annually via the OMB Sustainability and Energy Scorecard. USACE status as of the end of FY11 is "red" on all seven scorecard metrics, primarily because of its late start in addressing the Federal sustainability requirements. The key metrics and strategies for improvement are summarized in the table below.

The ASA(CW) and USACE leadership have placed special emphasis on funding for sustainability and energy efficiency projects in the Civil Works budgets for FY12-13. This fiscal year (FY12), the Corps of Engineers is executing more than 100 energy and water efficiency and renewable energy projects at facilities Corps-wide. These projects include simple, every-day initiatives like installing LED lighting and new thermostats in buildings, as well as renewable technologies such as ground source heat pumps and photovoltaic (solar power) systems. We also will be implementing our non-tactical vehicle fleet management plan to streamline and improve the fuel efficiency of our fleet, and will be leveraging our new Regional Energy, Sustainable Design and Life Cycle Cost Analysis Centers of Expertise to implement the right mix of infrastructure projects using both appropriated funds and alternative financing mechanisms.

The most significant positive accomplishment reported in the SP is the reduction in floating plant petroleum consumption and GHG emissions, which as of FY11 year-end, was reported as 12.4%, compared to the FY11 target of 3.25%. USACE attributes this accomplishment to systematic investments over the past 3 years in fuel efficiency on USACE major vessels, as well as the on-going Navigation community initiative to increase use of biodiesel.

USACE FY12 Sustainability Plan Goal Summary

(bold indicates priority strategies for FY12-FY13)

SP Goal	Key Metric	FY11 Performance	Best Practices	Strategies
GOAL 1: Greenhouse Gas (GHG) Reduction and Maintenance of Agency Comprehensive Greenhouse Gas Inventory	Reduce greenhouse gas scope 1&2 emissions by 23% from FY08 baseline by FY20	3.6% increase	Floating Plant repowering Floating Plant biodiesel Initiative	Propose that emergency operation of pumping plants be excluded from the GHG target Related strategies described in Goals 2 and 3
	Reduce greenhouse gas scope 3 emissions by 5% from FY08 baseline by FY20	16.2% increase		Work with DTMO on baseline issues Establish telework metric
GOAL 2: Buildings, Energy Savings Performance Contracts (ESPCs) Initiative Schedule, and Regional & Local Planning	Reduce energy intensity in goal-subject facilities by 30% from FY03 baseline by FY15	0.4%	Multi-facility Energy Savings Performance Contracts Data visualization and analytical capabilities	Complete comprehensive data clean-up and propose baseline changes as necessary Train energy managers Leverage \$2.5M in private investment by 31 Dec 2013 in ESPC and ENABLE proof-of-concept projects Execute energy efficiency projects Complete energy and water evaluations at covered facilities Leverage the Army Metering Program
	25% electricity consumption is from renewable sources by FY25	1.5%		Execute renewable energy projects
	Ensure 15% of existing buildings and building leases (>5,000 GSF) meet the Guiding Principles by FY15	0%		Issue policy Evaluate buildings for conformance
GOAL 3: Fleet Management	Reduce non-tactical vehicle petroleum use by 30% from FY05 baseline by FY20	14.3% increase	Purchase of alternative fueled vehicles Leveraging the Federal Fleet Management System	Correct baseline Right-size the NTV fleet by implementing the USACE Fleet Management Plan

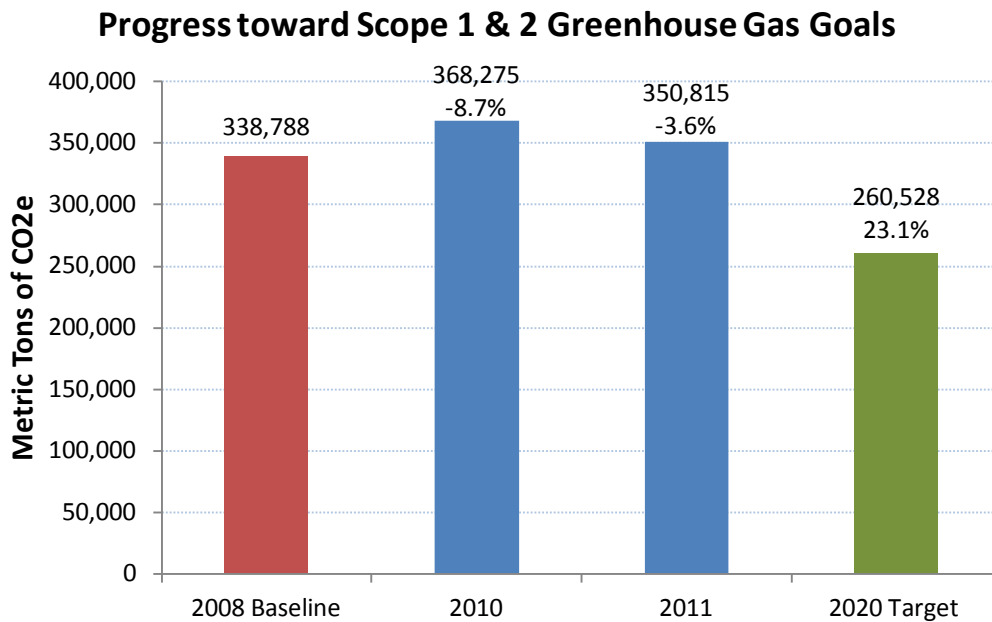
GOAL 4: Water Use Efficiency and Management	Reduce potable water intensity by 26% from FY07 baseline by FY20	4.2%	Same strategies as Goal 2, energy intensity	Same strategies as Goal 2, energy intensity
GOAL 5: Pollution Prevention and Waste Reduction	Divert 50% of non-hazardous solid waste from landfill Divert 50% of construction and demolition debris from landfill	unknown		Issue policy Determine availability of services at Civil Works projects Educate visitors
GOAL 6: Sustainable Acquisition	95% of new contract actions, including task and delivery orders, for products and services are energy efficient, water-efficient, biobased, environmentally preferable, non-ozone depleting, contain recycled content, or are non-toxic or less toxic alternatives	~10%		Issue policy Provide training Explore data mining options Update design and construction specifications and national model RFP
GOAL 7: Electronic Stewardship and Data Centers	% of PCs with power management actively implemented	100%	Server consolidation	Application rationalization
	% of printing devices defaulted to duplex printing	100%		
	% of electronic assets covered by sound disposition practices	unknown		Work with Defense Logistics Agency on reporting capabilities
GOAL 8: Agency Innovation & Government-Wide Support	Goal 8 is a narrative summary of other USACE sustainability work			
Climate Change Adaptation	Climate Change Adaption Report and Plan is contained in Appendix 2		Create and implement the Corps national policy on sea-level change for coastal projects and develop and deploy a national policy on adaptation measures for inland hydrology	

TABLE 1: SIZE AND SCOPE OF AGENCY OPERATIONS

Agency Size and Scope	FY 2011
Total Number of Employees as Reported in the President's Budget	36,586
Total Acres of Land Managed	7,679,362
Total Number of Facilities Owned	872
Total Number of Facilities Leased (GSA and Non-GSA lease)	142
Total Facility Gross Square Feet (GSF)	17,658,000
Operates in Number of Locations Throughout U.S.	687
Operates in Number of Locations Outside of U.S.	N/A
Total Number of Fleet Vehicles Owned	789
Total Number of Fleet Vehicles Leased	7,845

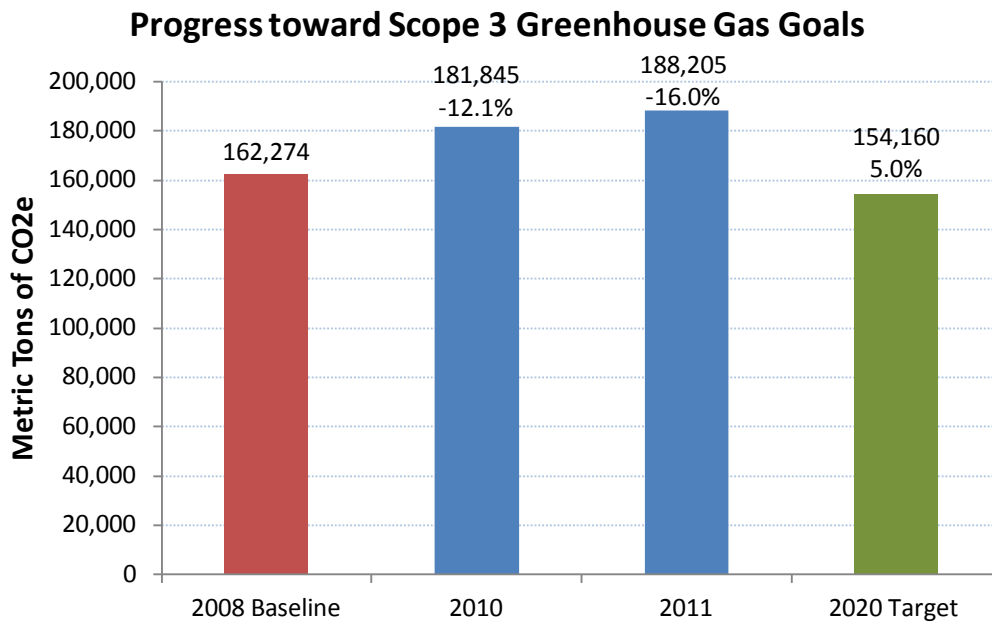
GOAL 1: GREENHOUSE GAS REDUCTION AND MAINTENANCE OF AGENCY COMPREHENSIVE GREENHOUSE GAS INVENTORY

Agency-Specific Performance Metrics for Scope 1 & 2 GHG Emissions Reduction:



Note: E.O. 13514 requires each agency to establish a scope 1 & 2 GHG reduction target for FY2020. The target for this agency is 23.1% compared to FY2008. The red bar represents the agency's FY2008 baseline. The green bar represents the FY2020 target reduction. The blue bars show actual status in relationship to the target. The percentage on each bar shows the reduction or increase from the FY2008 baseline. A negative percentage reflects an increase in scope 1 & 2 greenhouse gas emissions.

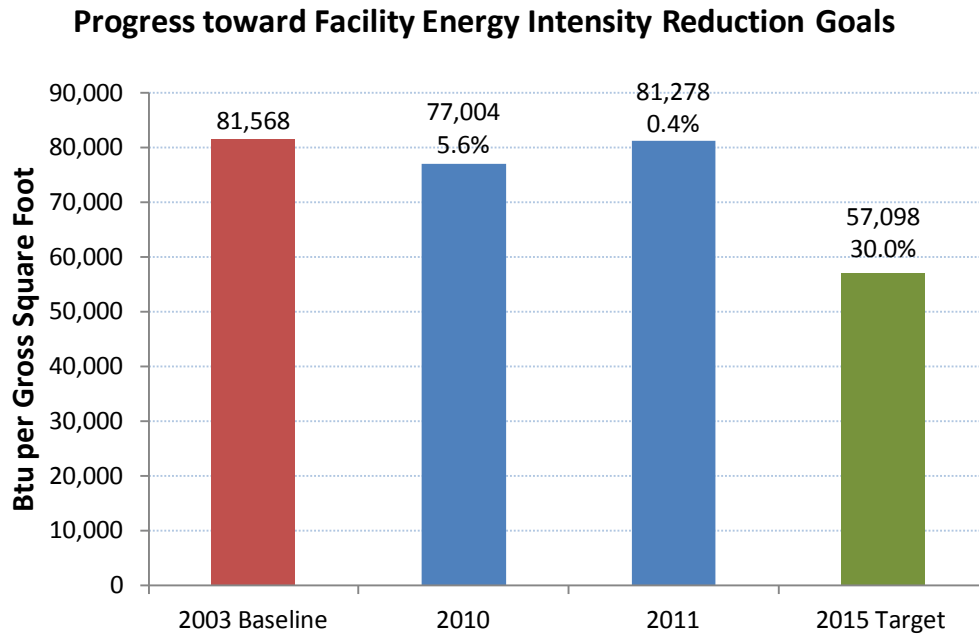
Agency-Specific Performance Metrics for Scope 3 GHG Emissions Reduction:



Note: E.O. 13514 requires each agency to establish a scope 3 GHG reduction target for FY2020. The FY2020 target for this agency is 5% compared to the FY2008 baseline. The red bar represents the agency's FY2008 baseline. The green bar represents the FY2020 target reduction. The blue bars show actual status in relationship to the target. The percentage on each bar shows the reduction or increase from the FY2008 baseline. A negative percentage reflects an increase in scope 3 greenhouse gas emissions.

GOAL 2: BUILDINGS

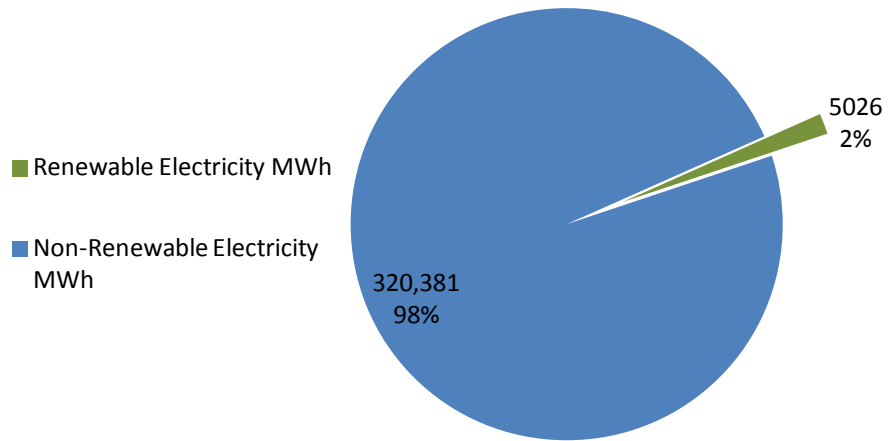
Agency-Specific Performance Metrics for Facility Energy Intensity Reduction:



Note: EISA requires agencies to reduce energy intensity by 18% for FY2011, compared to an FY2003 baseline; a 30% reduction is required by FY2015. The red bar represents the agency's FY2003 baseline. The green bar represents the FY2015 target reduction. The blue bars show actual status in relationship to the target. The percentage on each bar shows the reduction or increase from the FY2003 baseline.

Agency-Specific Performance Metrics for Renewable Energy:

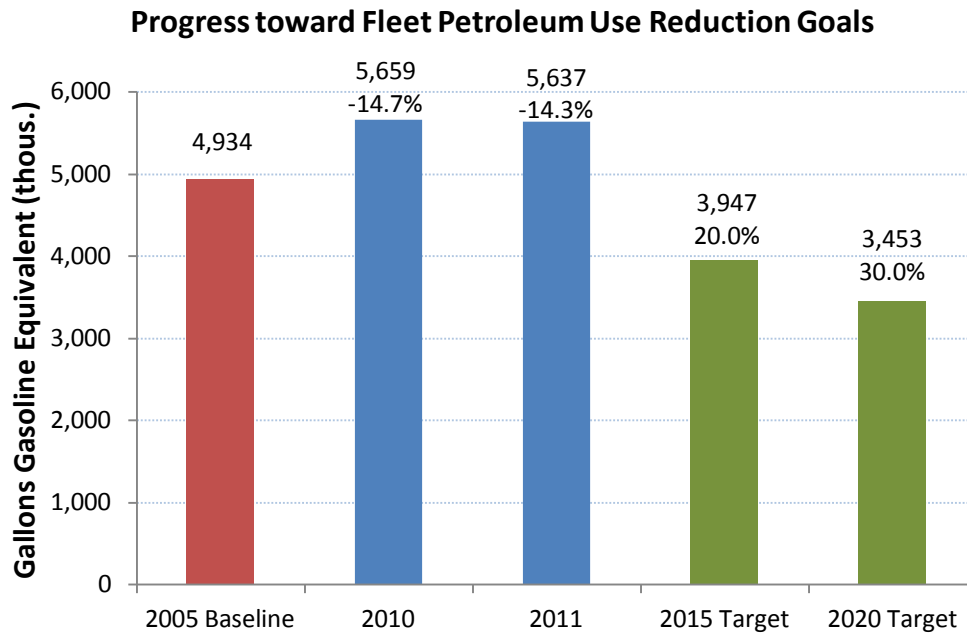
Use of Renewable Energy as a Percentage of Electricity Use



Note: EPAct requires agencies to increase the use of renewable energy as a percentage of electricity use to 5% by FY2010-2012 and 7.5% by FY2013 and beyond.

GOAL 3: FLEET MANAGEMENT

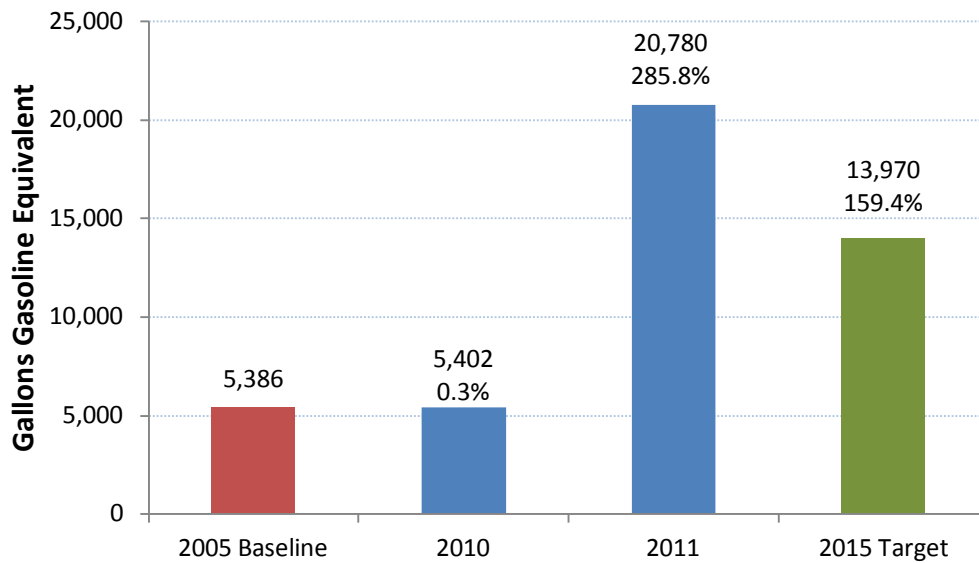
Agency-Specific Performance Metrics for Fleet Petroleum Reduction:



Note: E.O. 13514 and EISA require that by FY2011 agencies reduce fleet petroleum use by 12%, compared to an FY2005 baseline. A 20% reduction is required by FY2015 and a 30% reduction is required by FY2020. The red bar represents the agency's FY2005 baseline. The green bars represent the FY2015 and FY2020 target reductions. The blue bars show actual status in relationship to the target. The percentage on each bar shows the reduction or increase from the FY2005 baseline. A negative percentage reflects an increase in fleet petroleum use.

Agency-Specific Performance Metrics for Fleet Alternative Fuel Use:

Progress toward Fleet Alternative Fuel Consumption Goals

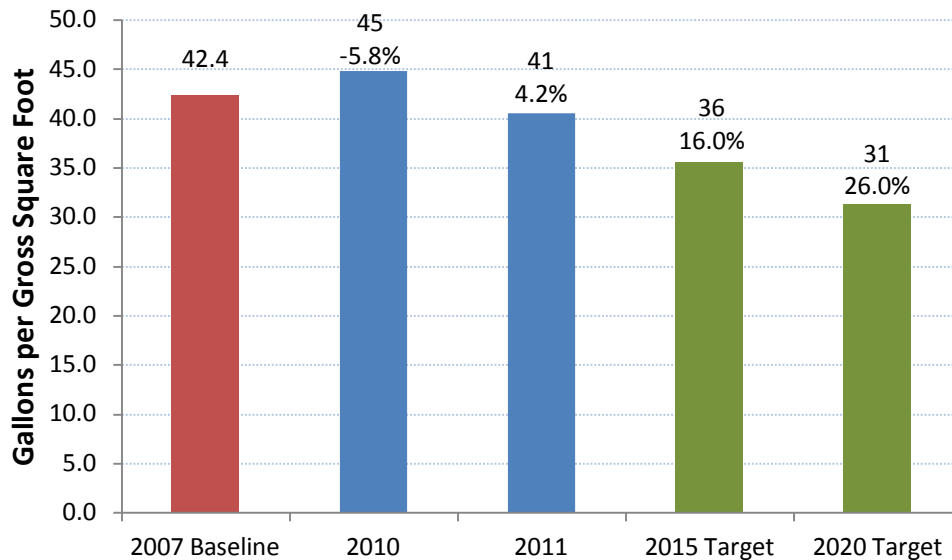


Note: E.O. 13423 requires that agencies increase total non-petroleum-based fuel consumption by 10% annually compared to an FY2005 baseline. Consequently, by FY2011 agencies must increase alternative fuel use by 77%, compared to an FY2005 baseline. By FY2015, agencies must increase alternative fuel use by 159.4%. The red bar represents the agency's FY2005 baseline. The green bar represents the FY2015 target. The blue bars show actual status in relationship to the target. The percentage on each bar shows the reduction or increase from the FY2005 baseline.

GOAL 4: WATER USE EFFICIENCY AND MANAGEMENT




Agency-Specific Performance Metrics for Potable Water Intensity Reduction:

Progress toward Potable Water Intensity Reduction Goals






Note: E.O. 13514 requires agencies to reduce potable water intensity by 2% annually through FY2020, compared to an FY2007 baseline. Consequently, by FY2011 agencies are required to reduce potable water intensity by 8%, compared to an FY2007 baseline. A 16% reduction is required by FY 2015 and a 26% reduction is required by FY2020. The red bar represents the agency's FY2007 baseline. The green bars represent the FY2015 and FY2020 target reductions. The blue bars show actual status in relationship to the target. The percentage on each bar shows the reduction or increase from the FY2007 baseline. A negative percentage reflects an increase in potable water intensity.




GOAL 7: ELECTRONIC STEWARDSHIP AND DATA CENTERS

EPEAT	POWER MANAGEMENT	END-OF-LIFE	COMMENTS
			




EPEAT:

	95% or more Monitors and PCs/Laptops purchased in FY2011 was EPEAT Compliant Agency-wide
	85-94% or more Monitors and PCs/Laptops purchased in FY2011 was EPEAT Compliant Agency-wide
	84% or less Monitors and PCs/Laptops purchased in FY2011 was EPEAT Compliant Agency-wide

Power Management:

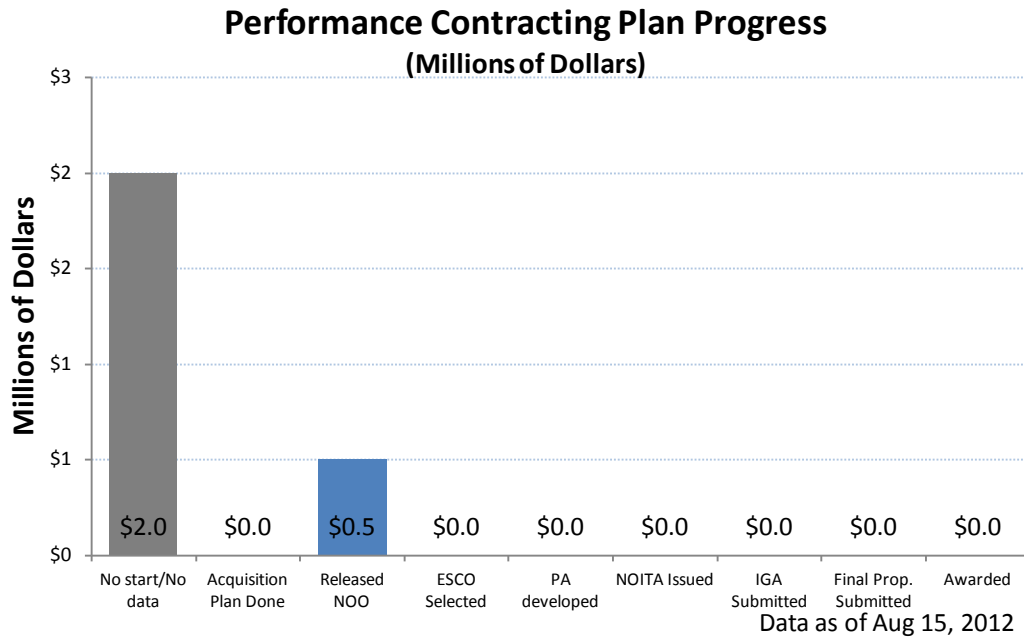
	100% Power Management Enabled Computers, Laptops and Monitors Agency-wide
	90-99% Power Management Enabled Computers, Laptops and Monitors Agency-wide
	89% or less Power Management Enabled Computers, Laptops and Monitors Agency-wide

End-of-Life:

	100% of Electronics at end-of-life disposed through GSA Xcess, CFL, Unicorn or Certified Recycler (R2, E-Stewards)
	100% of Electronics at end-of-life disposed through GSA Xcess, CFL, Unicorn or non-Certified Recycler
	Less than 100% of Electronics at end-of-life disposed through GSA Xcess, CFL, Unicorn or non-Certified Recycler

PRESIDENT'S PERFORMANCE CONTRACTING COMMITMENT

Agency-Specific President's Performance Contracting Commitment Metrics:



Agency-Specific President's Performance Contracting Commitment Metrics:

