A detailed marble relief sculpture depicting several children. One child in the center is leaning over a large globe, with their hands resting on its surface. Other children are positioned around the globe, some looking down at it. The sculpture is set within a recessed architectural frame.

A Legacy of Sustainability

FISCAL YEAR 2012 ANNUAL SUSTAINABILITY, ENERGY
AND WATER CONSERVATION REPORT

*Serving Congress
Preserving Resources
Inspiring Change*



Cover: This photo features the Great Hall stair railings of the Thomas Jefferson Building which are decorated with a fanciful series of cherubs carved in white marble.

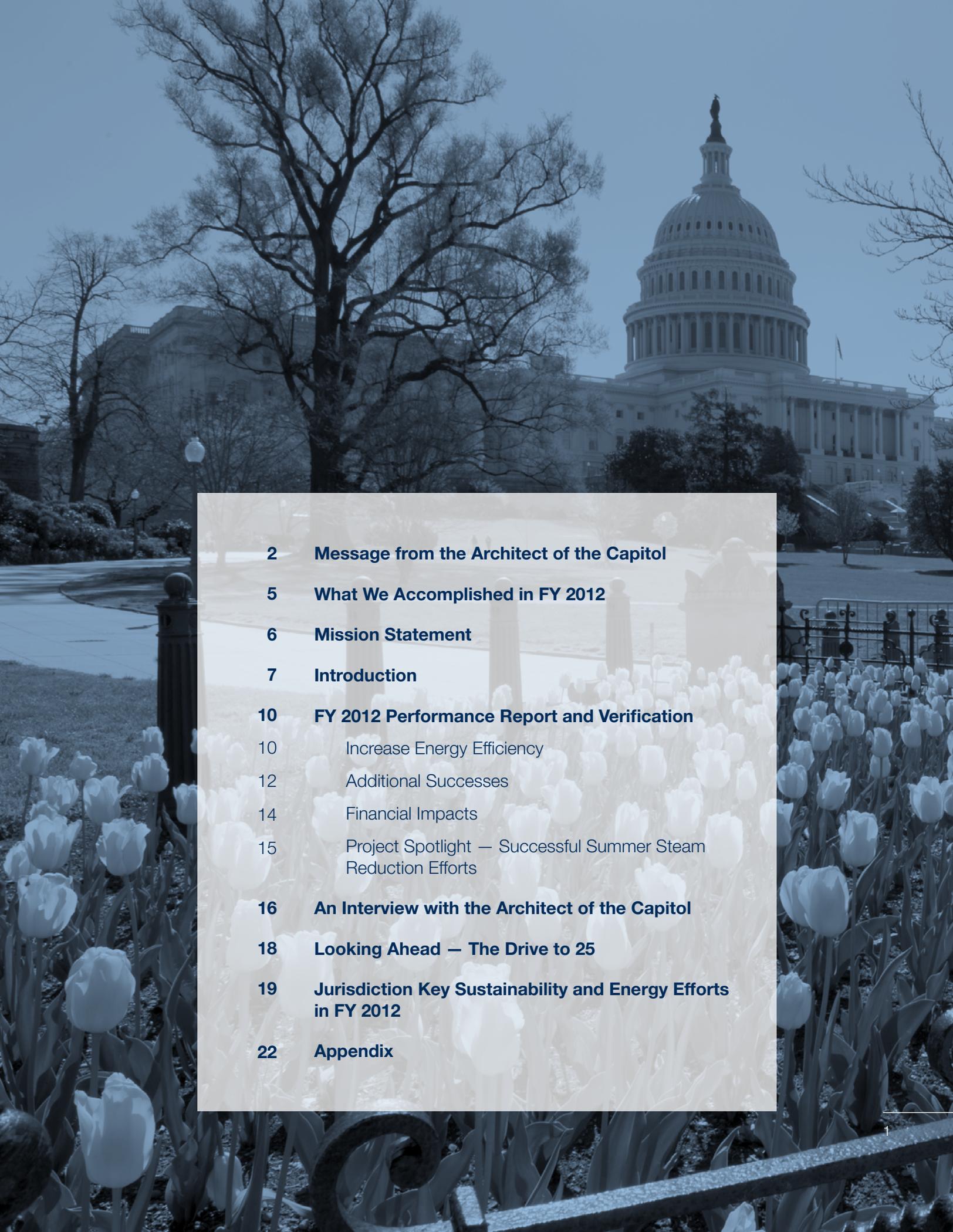
Back Cover: This photo features the sculptural pediment, *Genius of America*, over the east central entrance of the U.S. Capitol.

Congressional Mandates and Oversight

The Architect of the Capitol (AOC) is part of the Legislative Branch of government and serves Congress and the U.S. Supreme Court. It is responsible for the maintenance, operation, development and preservation of the U.S. Capitol Buildings and Grounds. As stewards of the Capitol campus and its offsite facilities, the AOC is required to meet annual reductions in energy consumption under the Energy Policy Act of 2005 (EPAct2005) and the Energy Independence and Security Act of 2007 (EISA2007).

In accordance with EISA2007, the AOC is driven to apply aggressive standards to reduce energy use by three percent annually from FY 2003 levels, yielding a 15 percent total decrease by FY 2010 and a 30 percent total reduction by FY 2015.

This report was created to inform Congress and the public of the AOC's progress on meeting its efficiency goals as well as its further commitments to sustainability and water efficiency. It includes details on the AOC's approach, achievements, and areas identified for future progress.



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Message from the Architect of the Capitol

I am pleased to present the Architect of the Capitol's (AOC's) Fiscal Year (FY) 2012 Sustainability, Energy, and Water Conservation Report. Every year, since 2006, we have described our efforts to reduce energy and water usage as well as improve our focus on sustainability. This report discusses the progress we have made through FY 2012, costs avoidances as a result of our energy savings and expected outcomes for future years. There are two FY 2012 highlights that I would like to make special note of:

- The completion of the House Office Building's energy savings performance contract, a 30-month construction project that included approximately \$34 million in facility infrastructure upgrades in the Rayburn, Longworth, Cannon and Ford House Office Buildings. Through this effort, the total energy consumption of the House Office Buildings was reduced 23 percent, savings equivalent to removing approximately 1,700 cars from the road or planting more than 2,600 acres of trees.
- A cross-jurisdictional campaign in the summer months. In June 2012, we began experiencing a slight increase in steam usage due to operational inefficiencies and weather related impacts. The increase risked our ability to meet the FY 2012 energy reduction goal. We quickly formulated a program driven on the AOC's three core impact areas: (1) utilizing the AOC's metering data **infrastructure** to highlight potential opportunities, (2) empowering our **people** to devise new strategies to achieve savings and (3) implementing new **building** operational strategies. By relying on our infrastructure, people and buildings, we were able to devise a plan, track progress and ultimately meet our energy reduction goals.

These accomplishments are due to the hard work and dedication of our staff. I commend them for their commitment to achieving our mission to reduce the AOC's overall energy consumption by 22 percent. This report and the AOC's sustainability plan — which outlines the agency's sustainability goals and objectives — illustrate our efforts to continue to make Capitol Hill more energy efficient as we drive towards an overall 25 percent energy reduction in FY 2013.



Stephen T. Ayers, FAIA, LEED AP
Architect of the Capitol

“ Through this effort, the House Office Buildings reduced their total energy consumption by 23 percent – equivalent to removing approximately 1,700 cars from the road or planting more than 2,600 acres of trees. ”



What We Care For



BUILDINGS

17.4 MILLION
SQUARE FEET



INFRASTRUCTURE

550
ACRES



PEOPLE

30,000
BUILDING OCCUPANTS

What We Accomplished

In FY 2012

22%

Energy reduction from FY 2003 baseline, exceeding the FY 2012 energy goal

6 MILLION

Square footage of buildings retro-commissioned in FY 2012

\$2.7 MILLION

Costs avoided through new energy reductions

116

Meters installed to measure consumption and allow the AOC to make improvements based on quantifiable data

100

Sustainability reviews of potential capital improvement projects

19%

Use of renewable electricity which places the AOC in the upper quartile of federal agencies for renewable energy use

TOP 25%

In energy reduction progress made when compared to all federal agencies from FY 2003-2012

MORE THAN \$13 MILLION

In building energy improvements re-allocated from utility accounts

20%

Reduction in our greenhouse gas footprint from a FY 2008 baseline

85 MILLION

Gallons of water saved from a FY 2007 baseline

43%

Materials recycled, both operational and construction waste

In FY 2012, the AOC saved enough energy to heat, power, and cool the U.S. Capitol Building, Dirksen Senate Office Building and Rayburn House Office Building for one year.

A close-up photograph of a stone statue of a man with a long, wavy beard and hair, wearing a draped garment. He is holding a torch in his right hand. The background is a light-colored stone wall with horizontal lines. The lighting is soft, highlighting the texture of the stone.

OUR MISSION

To **SERVE** Congress
and the Supreme Court,
PRESERVE America's
Capitol, and **INSPIRE**
memorable experiences



Introduction

In Fiscal Year (FY) 2012, the agency committed staff and resources to a new Strategic Vision. The Vision is organized around four goals and provides a framework for performance reporting for FY 2012-2016. The strategic objectives under goals “One Team, One Mission” and “Innovative and Empowered Workforce” focus on promoting a culture of integrity, teamwork and accountability. Goals “Awe-Inspiring Facilities” and “Extraordinary Services” address principal program areas related to facilities operational support, project delivery, preservation of heritage assets and historic structures, and visitor services. Each goal and objective contains performance measures that show how the Architect of the Capitol (AOC) is making progress.

Two years ago, the AOC introduced a discrete team within the Sustainability and Energy Division to focus directly on preservation and sustainability efforts. Working collaboratively with jurisdictions, the AOC realized a number of accomplishments during FY 2012 which are cross referenced throughout the AOC’s new Strategic Vision and this report.

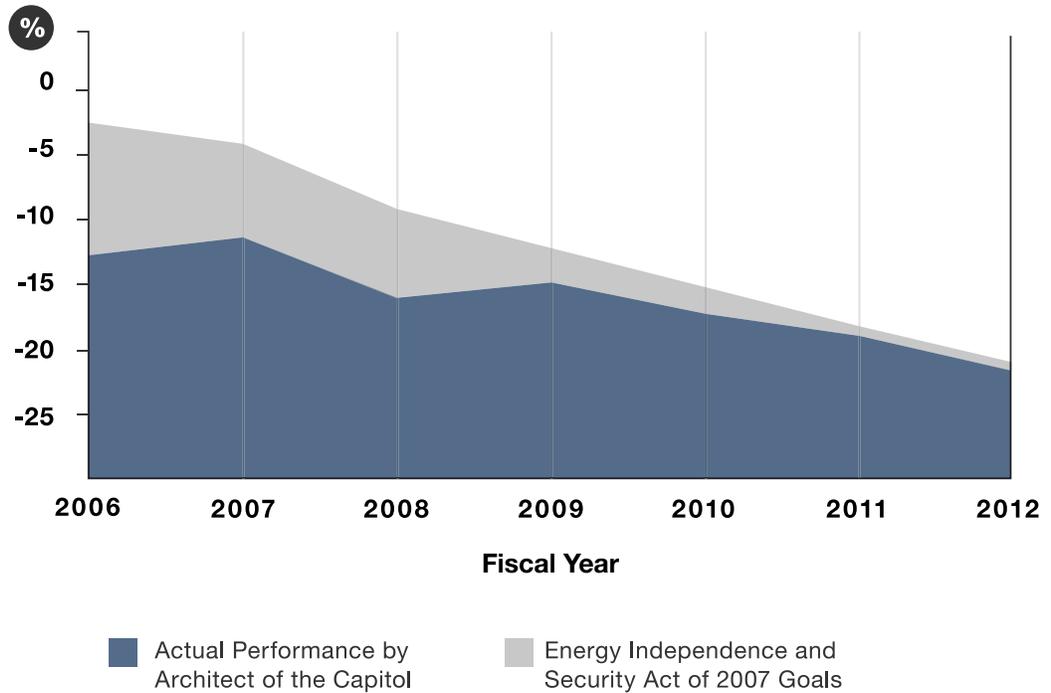
The Sustainability and Energy Division’s initiatives provide direction on how to meet the Strategic Vision goals. The division is especially focused on the Strategic Objective which promotes a culture of resource conservation. This objective includes performance metrics related to the AOC’s progress in accordance with the Energy Policy Act of 2005 (EPA2005) and the Energy Independence and Security Act of 2007 (EISA2007), to aggressively reduce its energy use annually.

In FY 2012, the AOC met its Strategic Vision objectives for resource conservation. Three key results made the greatest impact:

- 22 percent energy reduction from FY 2003 baseline, exceeding the FY 2012 energy goal
- 85 million gallons of water saved from a FY 2007 baseline (18 percent reduction)
- \$2.7 million in new savings through energy reductions

Further information regarding project implementation and performance results are located in the agency's Performance and Accountability Report at: www.aoc.gov/performance-accountability-report, as well as within its Sustainability Implementation Plan, both accessible through the AOC's website at: www.aoc.gov/strategic-initiatives/sustainability.

Annual Energy Reductions



A grand hall with several large, ornate marble columns. The columns are topped with decorative capitals. Behind the columns are heavy red curtains with gold fringe. The floor is made of large, light-colored tiles with a black diamond pattern. In the background, a statue of a man in a suit is visible on a pedestal.

AOC STRATEGIC GOAL
AWE-INSPIRING FACILITIES

OBJECTIVE
**PROMOTE A CULTURE OF
RESOURCE CONSERVATION**

Strategies to meet this objective include improving facilities asset performance, integrating sustainable practices into business operations, and strengthening a culture of sustainability with stakeholders and external organizations. In FY 2012, the AOC's energy and sustainability program successfully executed these important strategies – enhancing the goals and ideals of the agency.



FY 2012 Performance Report AND VERIFICATION

INCREASE ENERGY EFFICIENCY

Meeting the Challenge to Reduce Energy Consumption

Last year's report indicated the FY 2012 energy reduction goal of 21 percent, which excluded renewable energy credits for the first time. The AOC proactively managed and delivered the right tools to advance the initiatives needed to meet this challenge. Efforts required an integrated approach and coordinating among all jurisdictions to unify collective experiences and promote positive project outcomes.

KEY RESULTS

Made the greatest impact in helping the AOC meet its Strategic Vision objectives:

22%

Energy reduction from FY 2003 baseline

TOP 25%

In energy reduction progress made when compared to all federal agencies

20%

Reduction in greenhouse gases from a FY 2008 baseline

6 MILLION

Square feet of buildings retro-commissioned in FY 2012

116

Meters installed

19%

Use of renewable electricity

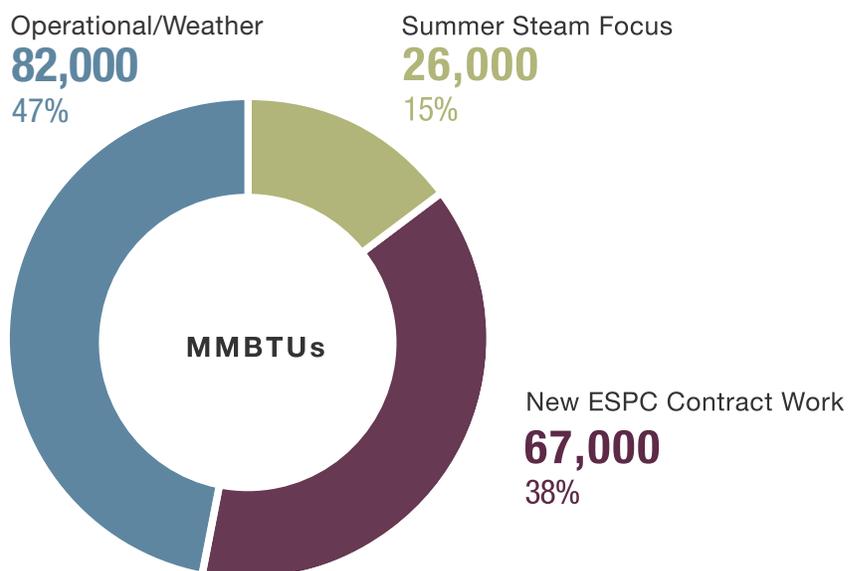
Projects included:

- Energy Savings Performance Contracts (ESPCs) within several jurisdictions; a public private partnership investment in capital improvements for heating ventilation and air conditioning controls, lighting replacements and steam systems.
- The installation of 116 new utility meters to measure electricity, steam, condensate, chilled water and domestic water usage.
- The successful completion of retro-commissioning and water balancing for more than 6 million square feet.
- Building and plant operational improvements such as the execution of energy conservation measures identified in building energy audits, and the use of free cooling and economizer mode.

These projects proved effective to the preservation and operations of the buildings on Capitol Hill. Each helped to ensure energy savings achieved from earlier improvements as well as capture new savings for future energy needs.

Looking ahead, the Sustainability and Energy Division plans to replicate and expand upon these efforts with an additional five million square feet of retrocommissioning, performance monitoring and system integration. The division is tracking performance metrics for all buildings on a weekly basis.

FY 2012 Savings Distribution



MMBBTUs Million British Thermal Units

Meeting the challenge to reduce energy consumption also equates to a reduction in the AOC's overall greenhouse gas footprint. The AOC's FY 2012 greenhouse gas footprint was 20 percent below its FY 2008 baseline. Reductions are driven from: reduced energy use, the purchase of renewable energy certificates, and a switch from coal to natural gas as our primary combustion fuel source within the Capitol Power Plant.

The AOC's mission, Strategic Vision and goals are focused on safeguarding the nation's landmarks against natural occurrences while helping to meet the energy challenges of the future. The AOC is consistently meeting its energy reduction goals since FY 2006 and is committed to helping maintain efficient, high performing, and healthy buildings across the Capitol.

Energy Intensity Reduction with Respect to FY 2003

TARGET: Energy Intensity is decreased by three percent each year from FY 2003 levels.

2007 Actual	2008 Actual	2009 Actual	2010 Actual	2011 Actual	2012 Target	2012 Actual
-11.4% Met	-16.0% Met	-15.0% Met	-17.0% Met	-18.9% Met	-21.0% Met	-21.8%

Data Source: The AOC Executive Dashboard

Discussion: EPAAct2005 and EISA2007 mandate that the AOC increase energy efficiency, conserve water, reduce greenhouse gas emissions and use environmentally-preferable products. The law requires a reduction of three percent in energy consumption every year from the FY 2003 baseline with a total 30 percent reduction by 2015.

ADDITIONAL SUCCESSES

A More Sustainable U.S. Capitol

In FY 2012, the AOC strengthened its sustainability goals through employee engagement and improved outreach. Increased efforts included visible representation by the Sustainability and Energy Division on AOC projects, continued participation with internal and external working groups and updated AOC Design Guidelines to align with applicable strategic goals, legislative mandates, and the adoption of the *Guiding Principles for High Performing Green Buildings*.

KEY RESULTS

Made the greatest impact in helping the AOC meet its Strategic Vision objectives:

100%

Sustainability reviews for capital improvement projects

43%

Materials recycled

85 MILLION

Gallons of water saved from a FY 2007 baseline (18 percent reduction)

In FY 2012, the AOC met its internal recycling goals for operational and construction waste through educational and programming efforts. The AOC is identifying new efforts and waste streams as the recycling goal continues to increase. Additional success also included a reduction in water use through fixture upgrades and operational improvements. The AOC also exceeded its internal goal of a 10 percent reduction in water use intensity from a FY 2007 consumption level through fixture upgrades and operational improvements. The agency remains committed to the efficient use of non-potable water resources and continues to make improvements. In FY 2013, the AOC expects to benchmark its waste and water reduction progress alongside all federal agencies. In addition, the AOC is elevating its internal metrics toward a 30 percent reduction in water use intensity by 2016.

Future projects expected to make the greatest impact in helping the AOC meet its objectives include:

- The completion and implementation of its sustainable building management plans.
- Continued implementation of sustainable strategies and benchmarking for capital improvement projects.
- The evaluation of climate change risks and potential impacts on the agency's mission, programs and operations as recommended by the U.S. Government Accountability Office.



KEY RESULTS

Made the greatest impact in helping the AOC meet its Strategic Vision objectives:

\$2.7 MILLION

Costs avoided through new energy reductions

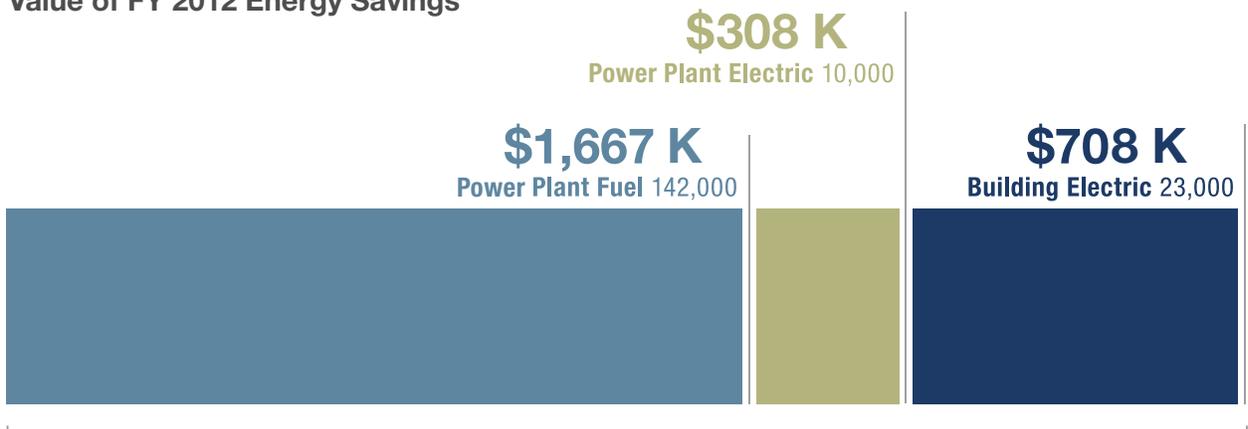
MORE THAN \$13 MILLION

In building energy improvements re-allocated from utility accounts

FINANCIAL IMPACTS

In FY 2012, budgets challenged teams to successfully balance the financial, environmental and social aspects of projects. The AOC's project integration process helps the agency manage financial risk while targeting program goals, such as environmental impact. The agency's integrated approach to the maintenance, revitalization and enhancement of the buildings on Capitol Hill, especially the use of Energy Savings Performance Contracts and performance optimization and monitoring, identified sustainable energy projects and achieved savings with little to no financial impact. In FY 2012, total savings produced a value of more than \$13 million in building energy improvements reallocated from utility accounts. The AOC is committed to continuing to account for sustainability and energy issues within an integrated financial process.

Value of FY 2012 Energy Savings



Total \$2.7 Million

Total MMBTUs: 175,000

PROJECT SPOTLIGHT

Successful Summer Steam Reduction Efforts

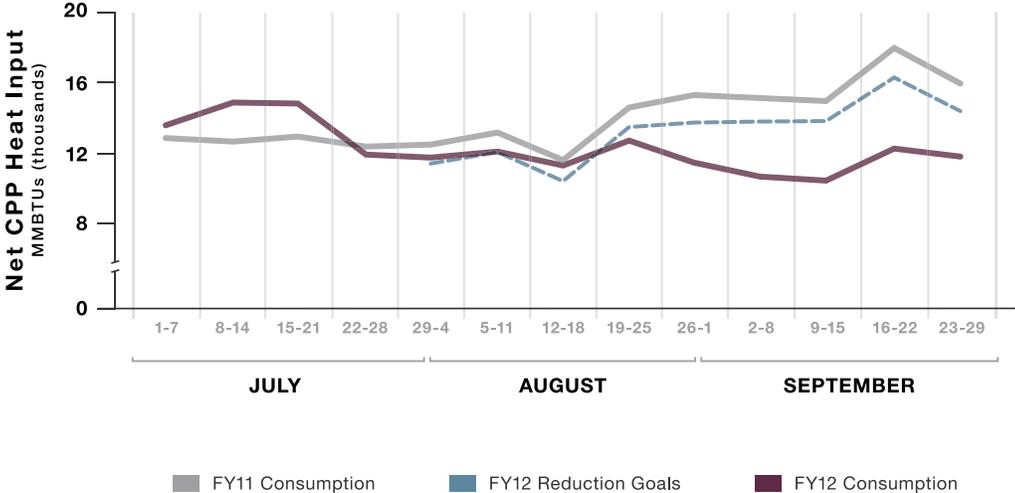
The U.S. Capitol Power Plant provides steam and chilled water to heat and cool over 20 buildings across Capitol Hill and Union Station. In the summertime, steam is primarily used on campus to provide hot water, maintaining a lower demand in comparison to winter months. This smaller demand creates opportunities for energy reductions through efficiency gains.

In June 2012, our new meter infrastructure identified an unexpected increase in steam energy usage – an increase which risked the AOC’s ability to meet its FY 2012 energy reduction goal. In light of this problem, the AOC’s Sustainability and Energy Division initiated a multi-jurisdictional effort to reduce steam usage. With the support of Architect of the Capitol Stephen T. Ayers, Chief Operating Officer Christine Merdon and the Energy Management Working Group, the Sustainability and Energy Division created a Summer Steam Reduction Challenge, its first targeted, seasonal, time-focused steam-reduction initiative.

The jurisdictions immediately shouldered the effort to meet the goal and needs of the AOC’s clients. Teams tapped into the AOC’s web-control meter reading systems to identify unseen issues. Assistant superintendents harnessed ideas and lessons learned from other groups across campus. The energy managers and their teams focused on eliminating unnecessary uses of steam and modifying domestic hot water temperatures. The Capitol Power Plant maximized the use of its most efficient boiler. Using the meter system and anticipated building loads, the Sustainability and Energy Division developed a weekly steam tracking chart to measure progress during the challenge. The figure below summarizes the tracking chart, the reduction goal and actual progress. Using the three components of the “Building, Infrastructure and People” focus, the AOC added one percent of needed energy savings to surpass its FY 2012 energy goal.

Two months savings goal equaled **12,000 MMBTUs**. Actual savings equaled **26,000 MMBTUs**. The resulting value of savings equaled **\$305,000**.

Steam Reduction Progress Summary





Architect of the Capitol Stephen T. Ayers visits the Phelps High School during the AOC partnership program

An Interview With the ARCHITECT OF THE CAPITOL

Q: In a period of growing fiscal challenges and priorities, how do you envision the Architect of the Capitol's (AOC's) role for future energy and sustainability initiatives?

A: While we face a number of fiscal challenges in the years ahead, it's important to be as forward-thinking, collaborative and innovative as possible. For example, during Fiscal Year (FY) 2012, we successfully deployed our new Strategic Vision — a plan that strengthens the AOC's existing foundation to address those challenges. It also provides us with strategies to achieve long-term resource savings as we build and maintain historic facilities with the goals of energy, water and waste reduction in mind. Through these efforts, I envision the AOC continuing to evolve its Legacy of Sustainability to meet future priorities.

“ Sustainability isn't new to the AOC, we are proud of our legacy, but we must build upon that foundation intelligently. ”

Stephen T. Ayers, FAIA, LEED AP

Q: What steps can we — faculty, staff and visitors — take?

A: The AOC approaches energy and sustainability in terms of buildings, infrastructure and people – from the nation's historic spaces, to the infrastructure that supports it, to the people that work or visit within our spaces. I believe it's important for everyone to be engaged in preserving and maintaining our buildings. This means education and training for our teams, driving commitments from the top-down and the bottom-up; education through our website which highlights steps we can all take in our personal offices and at home; and access to a knowledgeable team that works with staff and visitors on preservation, energy and sustainability issues.

Q: What's on the horizon for energy and sustainability?

A: Our next energy milestone is a 25 percent energy reduction for FY 2013, which will be achieved through successful completion of the remaining energy savings performance contracts, continuing to reduce our operational steam usage in off-peak months and driving electrical savings at the building level. In the next several years we plan to focus on the development of our co-generation system and the final phases of the Refrigeration Plant Revitalization program. The primary focus of these projects is to upgrade our Capitol Power Plant's reliability and a major benefit is added energy savings and reduced environmental impacts.

I want to continue to strengthen our work in actively linking preservation and sustainability efforts. Sustainability isn't new to the AOC; we are proud of our legacy, but we must build upon that foundation intelligently. For instance, we should continue to take advantage of better technologies, practices and tools while maintaining our sense for preservation. I'm excited to see what future innovations our agency will capture.

For further information on sustainability initiatives, please see:

www.aoc.gov/strategic-initiatives/sustainability



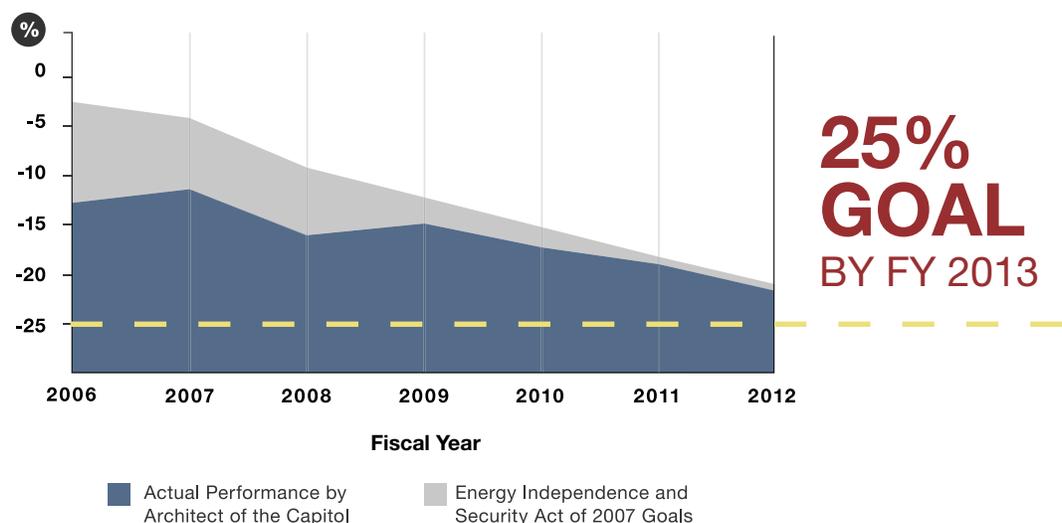
Looking Ahead

THE DRIVE TO 25

By the end of FY 2013, the AOC intends to increase its energy efficiency and drive toward a 25 percent energy reduction. To accomplish this, we are supporting the relationship between preservation, technological innovation and operational improvements. For example, the AOC intends to replicate successful efforts such as the summer steam reduction savings highlighted on page 15 of this report. This strategy takes advantage of operational savings where minimal investments are needed.

Looking ahead, the Sustainability and Energy Division plans to continue its support of the Strategic Vision to achieve goals and develop methods to meet the AOC's benchmarks and further report on the sustainability, energy and preservation efforts that promote positive financial outcomes.

Annual Energy Reductions



Jurisdiction

KEY SUSTAINABILITY AND ENERGY EFFORTS IN FY 2012



U.S. CAPITOL BUILDING AND CAPITOL VISITOR CENTER

Energy Savings Performance Contracts

The Capitol Building jurisdiction initiated its energy savings performance contract. Savings figures from these efforts are expected in FY 2013 reports.



CAPITOL GROUNDS

Maintenance Management Plan

The pilot program supports lifecycle management and day-to-day work process management. The plan is expected to cover a 10-year period and is based on the AOC's Cultural Landscape Report, Facilities Condition Assessments and the Storm Water Management plan.

Historic Preservation Training

Focused on improving the staff's understanding of the importance of the Frederick Law Olmsted design — specifically, the historic walls, statuary, decorative elements and historic trees found on the Capitol Grounds. The training promotes appropriate preservation and maintenance measures through education.



CAPITOL POWER PLANT

Production Efficiency and Cost Savings Initiatives

Power Plant Operations staff implemented process improvements that increased the efficiency of its chilled water production service and reduced electrical costs. The improvements increased efficiency by eight percent and reduced electrical costs by an estimated one million dollars with no impact on service delivery.



HOUSE OFFICE BUILDINGS

East House Underground Garage Renovation Completed

The energy-savings project resulted in \$30,000 in energy reductions and avoidance of maintenance costs, saved four million gallons of water and 1.5 million kWh of power, and reduced two million ton-hours of chilled water and 2,000 pounds of steam.



SENATE OFFICE BUILDINGS

In FY 2012, the Senate Superintendent's Office focused on completing its ESPC. These efforts included a comprehensive building automation system modernization, upgrade of existing pneumatic and electric controls for heating ventilation and air conditioning systems with direct digital controls, and a major lighting upgrade to all the Senate Office Buildings. This included retrofitting existing light fixtures with high-efficiency lamps, ballasts, controls and reflectors, as well as new replacement fixtures. The centralized dimming system expanded with the addition of occupancy and daylight sensors in appropriate locations to minimize energy use.

Additionally, in FY 2012 the second phase of the Dirksen Senate Office Building air handler unit replacement project started. A new feature added to the air handler units is the installation of a fan matrix system. This system provides energy and maintenance savings.



LIBRARY BUILDINGS AND GROUNDS

James Madison Memorial Building (JMMB) Cafeteria Renovation

The comprehensive renovation was completed under budget and on schedule. Renovations included energy efficient lighting and a new control system that utilizes occupancy sensors and daylight harvesting technology.

A water balancing project also was completed in the JMMB to more efficiently distribute hot and cold water for heating and cooling systems.

Energy Savings Efforts

The AOC coordinated with the Library of Congress to implement a "Green Day" electrical curtailment program and a "Gold Day" demand response initiative, which presented a key approach to manage energy consumption. As part of this program, the jurisdiction worked to actively decrease energy use identified with the highest energy demand day. Efforts included modifications to operating procedures for mechanical and electrical systems (HVAC night and weekend setbacks, lighting levels reduced, and secondary hot water temperatures lowered).

In addition, several design projects involved the installation of new energy efficient mechanical equipment to serve the building's heating, ventilation and air conditioning systems, which resulted in overall building system improvements.



CAPITOL POLICE BUILDINGS AND GROUNDS

Energy Savings Projects Completed

Energy management improvement projects completed this fiscal year produced over \$100,000 in annual cost avoidances. These 20 projects included the U.S. Capitol Police Headquarters.



THE SUPREME COURT OF THE UNITED STATES

West Façade Restoration Project Commenced

In May 2012, the jurisdiction began restoration work on the Supreme Court Building's West Front. The restoration includes resealing the mortar joints in the exterior marble, replacing the bird deterrent system and thoroughly cleaning the stone.

Exterior Property Renovation Project Initiated

The grounds renovation project for the eight acres that surround the Supreme Court Building restores the grounds to the original exterior plan. The project includes sustainable and accessible landscaped areas and walkways, new irrigation and drainage systems and replacement of aged and deteriorated trees and shrubs.

Energy Saving Initiatives Implemented

Upgrades to the Supreme Court's building automation system controls allow technicians to remotely adjust HVAC settings and individual room controls. Other energy conservation projects included replacement of the steam traps on convection units and modernization of all elevators with high efficiency motors.



U.S. BOTANIC GARDEN

The continued partnership in the Sustainable Sites Initiative (SITES) promotes national guidelines and performance benchmarks for sustainable land design, construction and maintenance practices. The two-year pilot project to recognize sustainable land practices concluded this year and SITES certified 11 projects across the country.

Energy Conservation Initiatives Employed

Completed projects include the replacement of incandescent lights with LED light fixtures and the installation of a low-voltage lighting system for the orchid collection. The USBG also upgraded the fans inside the Conservatory and finalized the window replacement project for the Administration building.

Appendix

The following performance charts were created to provide a summary of the AOC's progress on meeting the requirements under the Energy Policy Act of 2005 (EPA2005) and the Energy Independence and Security Act of 2007 (EISA2007).

FY 2012 ENERGY MANAGEMENT PERFORMANCE SUMMARY

GOAL PERFORMANCE				
Energy Management Requirement	FY 2003 Btu/GSF	FY 2012 Btu/GSF	Percent Change FY 2003 - 2012	FY 2012 Goal Target
Reduction in Energy Intensity in Facilities Subject to the EPA2005 Goals	172,678	135,049	-21.8%	-21.0%
Renewable Energy Requirement	Renewable Electricity Use (MWH)	Total Electricity Use (MWH)	Percentage	FY 2012 Goal Target
Eligible Renewable Electricity Use as a Percentage of Total Electricity Use	65,327.0	347,868.7	18.8%	5.0%
Water Intensity Reduction Goal	FY 2007 Gallon/GSF	FY 2012 Gallon/GSF	Percent Change FY 2003 - 2012	FY 2012 Goal Target (AOC Internal Metric)
Reduction in Potable Water Consumption Intensity	26.7	22.2	-16.8%	Met
Metering of Electricity Use	Cumulative # of Buildings Metered	Cumulative % of Electricity Metered	Cumulative % of Appropriate Buildings Metered	FY 2012 Goal Target
Standard Electricity Meters in FY 2012	25	14.0%	53.2%	Met
Advanced Electricity Meters in FY 2012	22	86.0%	46.8%	Met
Total Electricity Meters in FY 2012	47	100.0%	100.0%	100.0% (Met)
Federal Building Energy Efficiency Standards			Percent of New Building Designs	FY 2007 Forward Goal Target
Percent of New Building Designs Started Since Beginning of FY 2007 That are 30 Percent More Energy Efficient Than Relevant Code, Where Life-Cycle Cost Effective:			100%	100%

INVESTMENTS IN ENERGY AND WATER MANAGEMENT		
Sources of Investment	Investment Value (Thou. \$)	Anticipated Annual Savings (Million Btu)
Direct Obligations for Facility Energy Efficiency Improvements	\$1,928.0	20,169.8
Investment Value of ESPC Task/Delivery Orders Awarded in Fiscal Year	\$0.0	0.0
Investment Value of Utility Energy Service Contract Task/Delivery Orders Awarded in Fiscal Year	\$0.0	0.0
Total	\$1,928.0	20,169.8
		Percentage
Total Investment as a Percentage of Total Facility Energy Costs		3.6%
Financed (ESPC/Utility Energy Service Contract) Investment as a Percentage of Total Facility Energy Costs		0.0%

FY 2012 ENERGY MANAGEMENT DATA REPORT

Part 1: Energy/Water Consumption Data

1-1. EPAAct GOAL SUBJECT BUILDINGS							
Energy Type	Consumption Units	Annual Consumption	Annual Cost (Thou. \$)	Unit Cost (\$)	Unit of Measure	Site-Delivered Btu (Billion)	Est. Source Btu (Billion)
Electricity	MWH	241,077.3	\$ 23,229.3	\$ 0.10	/kWh	822.6	2,599.3
Fuel Oil	Thou. Gal.	47.8	\$ 205.6	\$ 4.30	/Gallon	6.7	6.7
Natural Gas	Thou. Cubic Ft.	1,161,973.1	\$ 15,434.9	\$ 13.28	/Thou Cu Ft.	1,162.0	1,215.4
Coal	S. Ton	3,159.0	\$ 824.3	\$ 260.94	/S. Ton	88.5	88.5
Purch. Steam	BBtu	15.0	\$ 575.3	\$ 38.33	/MMBtu	15.0	34.5
Purch. Chilled Water	BBtu	13.9	\$ 492.6	\$ 35.36	/MMBtu	13.9	17.8
Excluded Steam (-)	BBtu	(171.3)	\$ (5,759.0)	\$ 33.61	/MMBtu	(171.3)	(231.3)
Excl. Chilled Water (-)	BBtu	(42.2)	\$ (703.6)	\$ 16.67	/MMBtu	(42.2)	(54.0)
Excluded Security (-)	MWH	(78.8)	\$ (7.6)	\$ 0.10	/kWh	(23.1)	(73.0)
Purch. Renew Electric.	MWH	65,327.0	\$ 6,594.7	\$ 0.10	/kWh	222.9	0.0
Purch. Renew. Other	BBtu	0.0	\$ -	\$ -	/MMBtu	0.0	0.0
		Total Costs:	\$ 40,886.5		Total:	2,094.8	3,603.8
FY 2012 Goal Subject Buildings Gross Square Feet (Thousands)		15,511.7			Btu/GSF:	135,049	232,330
Goal Subject Buildings FY 2003 Baseline (Btu/GSF)		172,678					

1-2. EPAAct GOAL EXCLUDED BUILDINGS							
Energy Type	Consumption Units	Annual Consumption	Annual Cost (Thou. \$)	Unit Cost (\$)	Unit of Measure	Site-Delivered Btu (Billion)	Est. Source Btu (Billion)
Electricity	MWH	41,543.3	\$ 4,003.0	\$ 0.10	/kWh	141.7	447.9
Fuel Oil	Thou. Gal.	359.0	\$ 1,529.7	\$ 4.26	/gallon	50.3	50.3
Natural Gas	Thou. Cubic Ft.	27,408.5	\$ 364.1	\$ 13.28	/Thou Cu Ft.	27.4	28.7
Coal	S. Ton	0.0	\$ -	\$ -	/S. Ton	0.0	0.0
Purch. Steam	BBtu	0.0	\$ -	\$ -	/MMBtu	0.0	0.0
Purch. Chilled Water	BBtu	0.0	\$ -	\$ -	/MMBtu	0.0	0.0
Excluded Steam (-)	BBtu	171.3	\$ 5,759.0	\$ 33.61	/MMBtu	171.3	231.3
Excl. Chilled Water (-)	BBtu	42.2	\$ 703.6	\$ 16.67	/MMBtu	42.2	54.0
Excluded Security (-)	MWH	78.8	\$ 7.6	\$ 0.10	/kWh	23.1	73.0
Purch. Renew Electric.	MWH	0.0	\$ -	\$ -	/kWh	0.0	0.0
Purch. Renew. Other	BBtu	0.0	\$ -	\$ -	/MMBtu	0.0	0.0
		Total Costs:	\$ 12,366.9		Total:	456.1	885.2
FY 2012 Goal Subject Buildings Gross Square Feet (Thousands)		1,062.4			Btu/GSF:	429,311	833,254
Goal Excluded Subject Buildings FY 2003 Baseline (Btu/GSF)		121,847					

1-3. ALL RENEWABLE ENERGY USE (INCLUDING NON-ELECTRIC) AS A PERCENTAGE OF FACILITY ELECTRICITY USE		
All Renewable Energy Use (Billion Btu)	Total Facility Electricity Use (Billion Btu)	RE as a Percentage of Energy Use
65,327.0	347,868.7	18.8%

1-4.1 WATER USE INTENSITY AND COST				
Potable Water	Annual Consumption (Million Gallons)	Annual Cost (Thou. \$)	Facility Gross Square Feet (Thou.)	Gallons per Gross Square Foot
Buildings & Facilities Water Usage	351.6	\$6,332.0	15,825.5	22.2
				Percent
Approx. Percentage of Reported Water Consumption that is Estimated:				0%
Is the FY 2007 Agency Water Intensity Baseline Preliminary or Final?				Final

Part 2: Energy Efficiency Improvements

2-1. DIRECT AGENCY OBLIGATIONS				
	FY 2012		Projected FY 2013	
	(Million Btu)	(Thou. \$)	(Million Btu)	(Thou. \$)
Direct Obligations for Facility Energy Efficiency Improvements, Including Facility Surveys/Audits		\$1,928.0		\$1,609.8
Estimated Annual Savings Anticipated from Obligations	20,169.8	\$346.0	20,000.0	\$343.1

2-2. ENERGY SAVINGS PERFORMANCE CONTRACTS (ESPC)		
	Annual Savings (Million Btu)	Task Orders/Savings (Number/Thou. \$)
Number of ESPC Task/Delivery Orders Awarded in Fiscal Year & Annual Energy (MMBTU) Savings	0	0
Investment Value of ESPC Task/Delivery Orders Awarded in Fiscal Year		\$0.0
Amount Privately Financed Under ESPC Task/Delivery Orders Awarded in Fiscal Year		\$0.0
Cumulative Guaranteed Cost Savings of ESPCs Awarded in Fiscal Year Relative to the Baseline Spending		\$0.0
Total Contract Award Value of ESPCs Awarded in Fiscal Year (Sum of Contractor Payments for Debt Repayment, M&V, and Other Negotiated Performance Period Services)		\$0.0
Total Payments Made to All ESPC Contractors in Fiscal Year		\$7,544.0



BALANCING STEWARDSHIP RESPONSIBILITY WITH TECHNOLOGICAL INNOVATION



Architect of the Capitol

United States Capitol
Washington, DC 20515