

U.S. DEPARTMENT OF STATE

Agency Sustainability Plan

FY 2010 - FY 2020

June 2011

Letter from the Senior Sustainability Officer

Dear Chair Sutley and Director Lew:

In accordance with Executive Order 13514, as the Senior Sustainability Officer for the U.S. Department of State, I hereby submit the FY 2011 Agency Sustainability Plan on behalf of the Department.

Over the past year, the U.S. Department of State continued to advocate responsible environmental stewardship and explored new ways to minimize its environmental footprint. Adding to our record of environmental performance, the Department completed renovations of its facility in Charleston, South Carolina facility, meriting a LEED® Platinum certification and setting it on track to achieving net-zero energy status by FY 2020. The Department also signed a long-term agreement to supply its District of Columbia-area facilities with a significant amount of clean renewable energy, greatly reducing the Department's greenhouse gas footprint.

Over the coming decade, the Department plans to improve energy efficiency throughout its facilities and vehicle fleet, reduce material consumption and waste, and lower its greenhouse gas emissions. We continue to implement conservation measures for the Department's domestic building portfolio, and are exploring green training opportunities for employee development.

The Department is dedicated to ensuring the most effective U.S. foreign policy outcomes and promoting accountability to our primary stakeholders, the American people. With great pride I note that the Department has a record of incorporating sustainability into its operations. By harnessing our employees' zeal for greening efforts, we intend to make even greater strides over the next decade and beyond.

Sincerely,

Patrick F. Kennedy

Under Secretary for Management
Agency Senior Sustainability Officer
U.S. Department of State

SECTION 1: AGENCY POLICY AND STRATEGY

- I. **Agency Policy Statement** - Letter from the Senior Sustainability Officer¹
- II. **Sustainability and Agency Mission**

"The core mission of the U.S. Department of State is to advance freedom for the benefit of the American people and the international community by helping to build and sustain a more democratic, secure, and prosperous world composed of well-governed states that respond to the needs of their people, reduce widespread poverty, and act responsibly within the international system."

- Department Mission Statement

A primary function of the Department is to share with the international community the story of America, including the nation's values of environmental stewardship. As the Department conducts American diplomacy abroad, its operations model the policies it advocates globally, thus conveying a consistent message and enabling its diplomats to articulate and promote without pretense the environmental policies and aspirations of our nation.

The Department is committed to applying environmental sustainability to its business process in a manner that sets strategic goals and priorities, creates relevant programs, monitors activities, collects data and measures progress toward achievement of goals, uses performance and evaluation information to influence program resource and allocation decision making and communicates results to stakeholders.

With inherent cost-saving benefits, improved community relations and work environment for employees, environmental sustainability is a natural complement to the Department's business operations. As the Department advances global diplomacy with an ever-smaller eco-footprint, environmental sustainability will continue to be an essential guiding touchstone.

¹ See Letter from Senior Sustainability Officer Patrick F. Kennedy, previous page

The following summary table provides details to characterize the scope of the Department's domestic operations that are subject to energy and greenhouse gas reduction goals.

Department of State Scope of Domestic Operation

Number of Domestic Government Employees (as of Sep 2010)	14,664
Total # Domestic Facilities Subject to Reduction Goals*	10
Total Domestic Facility Gross Square Feet (THOU) Subject to Reduction Goals	4,521
Operates in # of Locations throughout U.S.	10
Total # Fleet Vehicles Owned (Domestic)	239
Total # Fleet Vehicles Leased (Domestic)	1,189
Total # Exempted-Fleet Vehicles (Tactical, Emergency, Etc.) (Domestic)	981
Total Operating Budget FY 2010 (\$MIL)	16,566
Total # Contracts Awarded FY 2010	194,624
Total Amount Contracts Awarded FY 2010 (\$MIL)	\$7.7B
Total Amount Spent on Energy Consumption FY 2010 (\$MIL)	483.8
Total BTU Consumed per GSF FY 2010	109,266
Total Gallons of Water Consumed per GSF FY 2010	22.2
Total Scope 1&2 GHG Emissions (Comprehensive) FY 2008 Baseline MTCO _{2e}	139,067
Total Scope 1&2 GHG Emissions (Subject to Agency Scope 1&2 Reduction Target) FY 2008 Baseline MTCO _{2e}	85,245
Total Scope 3 GHG Emissions (Comprehensive) FY 2008 Baseline MTCO _{2e}	33,652
Total Scope 3 GHG Emissions (Subject to Agency Scope 3 Reduction Target) FY 2008 Baseline MTCO _{2e}	85,397

* Defined as domestic portfolio of owned and delegated facilities for which the Department has direct operational control.

III. GREENHOUSE GAS REDUCTION GOALS

In January 2010, the Department established a 20 percent reduction goal for Scope 1 and 2 GHG emissions by FY 2020, pending the availability of sufficient resources. The reduction goal uses a FY 2008 baseline and applies to the Department's ten domestically owned/delegated facilities.

The Department's domestic fleet vehicles account for less than 2 percent of its total Scope 1 and Scope 2 emissions. Focused on reducing domestic fleet emissions, the Department will continue to comply with the requirements for fleet vehicle management in E.O. 13423 and 13514 and the Energy Independence and Security Act of 2007 (EISA).

In accordance with E.O. 13514, the Department established a 2 percent reduction goal for its Scope 3 GHG emissions resulting from contracted waste disposal and wastewater treatment and transmission and distribution losses from purchased electricity. The Department continues to review its options to measure and address emissions resulting from employee travel and will submit an amendment to its Scope 3 target at a later date.

In January of 2011, the Department of State completed the first comprehensive greenhouse gas (GHG) inventory of its domestic operations for fiscal years 2008 and 2010, with fiscal year (FY) 2008 as the baseline established under Executive Order (E.O.) 13514. The comprehensive GHG inventory was developed using the Department of Energy's Federal Energy Management Program's Annual GHG and Sustainability Data Report, Version 1.6.

IV. PLAN IMPLEMENTATION

On Earth Day 2009, Secretary Hillary Rodham Clinton challenged the Department to address its environmental responsibilities by integrating them into its policies, operational elements and public diplomacy in a comprehensive and coordinated manner. This challenge, part of the Secretary's Greening Diplomacy Initiative (GDI), asks entities across the Department to account for their environmental footprint, be responsible environmental stewards and promote diplomacy that is ecologically sustainable.

In response to this challenge, the Department established the Greening Council (GC) to coordinate capabilities and efforts across the Department. The GC is the senior-level group responsible for overseeing and coordinating the greening of the Department. The GC fulfills its mission by providing strategic direction and guidance, establishing Department-wide greening roadmaps, and evaluating the Department's overall environmental performance. The GC meets quarterly to discuss sustainability issues and assess progress. The GC, facilitated by the Greening Council Chair (GCC), guides the activities of the Greening Council Working Group (GCWG).

The GCWG implements greening policy and initiatives under the general direction of the GC. Its responsibilities include preparing project plans and reports for review and approval by the GC and implementing Executive Orders and other federal mandates across the Department.

GCWG's core functions are to:

- Facilitate department-wide greening and sustainability activities, including internal policies and externally imposed federal mandates
- Facilitate action on ideas put forth by the Department's employees
- Implement GC communications strategy
- Monitor progress of ongoing and new greening efforts
- Provide a forum for exchanging lessons learned and best practices

The GCWG is comprised of bureau-selected representatives. These working-level representatives offer technical expertise, interest in greening and sustainability

issues, and are empowered to represent their bureaus in the deliberations and decision-making process. The Greening Council Working Group meets monthly.

The GCWG is organized into teams with coordinator(s) to facilitate each team. The current standing teams are:

- Communications and Outreach – Inform/educate internal and external audiences of the Department's efforts and accomplishments, coordinate consistent department-wide messaging, and establish the Department's image as a responsible environmental steward.
- Strategic Sustainability Policy, Programming and Measurement – Facilitate and leverage best practices into a comprehensive and coordinated effort, includes greening and sustainability activities, performance and metrics, and budget and program planning.
- Official Events – Coordinates official department-wide events (e.g. Earth Day, America Recycles Day, Speaker Series, etc.)
- Employee Ideas – Fosters an interactive green dialogue within the Department and encourages employee involvement and suggestions.

The Executive Secretariat (ES) is the coordinator and convener for the GC and supporting work groups. The ES prepares for and organizes GC and GCWG meetings, oversees drafting of greening reports and documents, and finalizes strategic planning on behalf of the Council. The ES also facilitates programs and initiatives that further GC objectives. The Office of Management Policy, Rightsizing, and Innovation (M/PRI) serves as the ES.

Activities to implement plan are assigned below:

- a. *Internal Coordination and Communication* – GCWG Communication and Outreach Team
- b. *Coordination and Dissemination of the Plan to the Field* - GCWG ES
- c. *Leadership & Accountability* – GC
- d. *Agency Policy and Planning Integration* – GC and carried out by the GCWG
- e. *Agency Budget Integration* – GC and carried out by the Department's Bureau of Resource Management (RM). The Department will assess investments and returns that support its ASP as part of the annual budget formulation and execution processes.
- f. *Methods for Evaluation of Progress* – GCWG will report back to the GC in quarterly reports, GC will determine if changes are needed.

Table 1: Critical Planning Coordination*

Originating Report / Plan	Scope 1 & 2 GHG Reduction	Scope 3 GHG Reduction	Develop and Maintain a Comprehensive GHG Inventory	High-Performance Sustainable Design / Green Buildings	Regional and Local Planning	Water Use Efficiency and Management	Pollution Prevention and Waste Elimination	Sustainable Acquisition	Electronic Stewardship and Data Centers	Agency Specific Innovation
GPRA Strategic Plan	No	No	No	No	No	No	No	No	No	n/a
Agency Capital Plan	No	No	No	No	No	No	No	No	No	n/a
A-11 300s	No	No	No	No	No	No	No	No	No	No
Annual Energy Data Report	Yes	n/a	Yes	Yes	n/a	Yes	n/a	n/a	Yes	No
EISA Section 432 Facility Evaluations/Project Reporting	Yes	n/a	Yes	Yes	n/a	Yes	n/a	n/a	n/a	No
Budget	No	No	No	No	n/a	No	No	No	No	No
Asset Management Plan / 3 Year Timeline	No	No	No	Yes	No	Yes	Yes	Yes	n/a	No
Circular A-11 Exhibit 53s	Yes	No	No	No	No	No	No	No	Yes	No
OMB Scorecards	Yes	Yes	Yes	Yes	n/a	Yes	Yes	Yes	Yes	No
DOE's Annual Federal Fleet Report to Congress and the President (EPAct)	Yes	n/a	Yes	n/a	n/a	n/a	n/a	n/a	n/a	No
Data Center Consolidation Plan	No	No	No	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Environmental Health & Safety Management Systems (EHSMS)	No	No	No	Yes	n/a	Yes	Yes	Yes	n/a	No
Instructions for Implementing Climate Change Adaptation Planning										
Other (reports, policies, plans, etc.)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a

*Existing plans will be updated to incorporate the objectives of E.O. 13514 in future ASP submissions

V. EVALUATING RETURN ON INVESTMENT

- a. *Economic Lifecycle Cost/Return on Investment*² – The Department uses life-cycle cost (LCC) analysis for decisions on investing in facility systems or equipment installations, and return on investment (ROI) analysis for determining investments in energy savings initiatives. With respect to Energy Savings Performance Contract (ESPC) decisions, the Department evaluates potential projects with the criterion of payback within 15 years, ensuring recovery of the investment before changes to the building or mission negate the effectiveness of the improvements. The Department also evaluates the financing aspects of ESPCs.
- b. *Social Costs & Benefits* – The Department continues to explore how to weigh the social costs and benefits of addressing its GHG emissions with the procurement of goods and services to achieve its mission. In the absence of guidance from the Administration or legislation, the Department will continue to follow the FAR and other federal guidelines when investing in capital assets and services while pursuing, when able, a low environmental footprint.
- c. *Environmental Costs & Benefits* – The Department continues to explore how to weigh the environmental costs and benefits of addressing its GHG emissions with the procurement of goods and services to achieve its mission. In the absence of guidance from the Administration or legislation, the Department will continue to follow the FAR and other federal guidelines when investing in capital assets and services while pursuing, when able, a low environmental footprint.
- d. *Operations & Maintenance and Deferred Investments* – The Department evaluates the operations and maintenance costs for both the current and proposed assets in making investment decisions for facilities and equipment. More energy efficient equipment may also be more complicated and therefore have higher maintenance costs for consumables, spare parts, and technical support. Deferred investments can be for programmatic or budgetary/financial reasons.

Climate Change Risk and Vulnerability – With regard to physical structures, the Department does not foresee any considerable risks to its facilities that would hinder its ability to carry out its diplomatic mission. The Department will continue to evaluate its areas of operation for potential climate change effects on its facilities and weigh such impacts with any capital investments.

Due to the geopolitical interests in and impacts of climate change and related national policies, a portion of the Department's diplomatic mission will continue to be affected by climate change. On the political and programmatic levels, the Department will continue to join colleagues across

² Applies to investments to reduce Scope 1 & 2 emissions. Does not apply to Scope 3 emission reduction efforts.

the U.S. Government in directing significant diplomatic and development resources to address climate change, both through international fora such as the UN Framework Convention on Climate Change and the Major Economies Forum on Energy and Climate, as well as through bilateral and multilateral assistance programs.

e. *Other (none)*

VI. TRANSPARENCY

The Department will continue to share the story of how it conducts the nation's diplomacy, making available to the public its agency sustainability policy statement, GHG reduction goals and its greening accomplishments on <http://www.State.gov/Green>.

For the international community, the Office of International Information Programs (IIP) raises awareness of the U.S government's green initiatives through web, digital video conferences connecting American experts with foreign audiences, web chats, traveling speakers, and print publications.

SECTION 2: PERFORMANCE REVIEW AND ANNUAL UPDATE

SUMMARY OF ACCOMPLISHMENTS:

Under the leadership of the Greening Council, the Department of State has taken critical steps to advance more environmentally friendly and sustainable operations. Among these were the completion of the Department's domestic GHG inventory and signing of a new procurement agreement that secured the development and supply of new sources of renewable energy.

In January 2011, the Department completed the first comprehensive GHG inventory of its domestic operations. Tracking activities in FY 2008 and FY 2010, the inventory enables the Department to measure progress on its FY 2020 GHG reduction goals.

In March 2011, the Department entered into a 20-year Energy Savings Agreement with Constellation Energy that will provide the Department with 120,000MWh of energy annually for its capital region facilities; it includes a balance of 45% clean renewable energy starting in January 2012. Adding such a significant portion of renewable energy to its energy portfolio greatly enhances the Department's ability to address its Scope 1 & 2 GHG reduction goal of 20% by FY 2020, likely meeting and exceeding it sooner than originally planned.

In FY 2010, the Department continued to address its Scope 3 emissions as they apply to Contracted Waste Disposal and Transmission and Distribution Losses from Purchased Energy. In both instances, activities focused on reducing resource consumption were applied. In addressing Scope 3 emissions from its Federal employee travel, the Department established a Travel Working Group under the Greening Council to evaluate possible reduction targets and develop solutions.

Overall, the Department continues to pursue reductions to resource demands through the latest advances in energy and resource efficient design. Results of this focus are evidenced by the numerous third-party recognitions for Department facilities' performance, and our further use of ESPCs to implement advanced energy and water conservation measures. The Department remains dedicated to greening its vehicle fleet through acquisition of alternative fuel vehicles, including hybrid electric vehicles.

GOAL PERFORMANCE REVIEW.

GOAL 1: SCOPE 1 AND SCOPE 2 GREENHOUSE GAS (GHG) REDUCTION

Sub-goal (a.)[Buildings]

- a. Sub-goal (a.)[Buildings] – Goal description:** In January 2010, the Department established a GHG reduction goal, pending adequate resources, of 20 percent by FY 2020, relative to a FY 2008 baseline, for its Scope 1 and Scope 2 emissions in accordance with E.O. 13514. Subsequently, in January 2011, the Department completed the first comprehensive GHG inventory of its domestic operations for activities in FY 2008 and FY 2010.

The Scope 1 and Scope 2 GHG reduction goal applies to the following domestic portfolio of owned/delegated facilities:

- HST Harry S Truman – Headquarters
- SA-1 Columbia Plaza
- SA-51 Blair House - President's Guest House
- SA-26 Beltsville Information Management Center (BIMC)
- SA-33 Federal Building – International Chancery Center (ICC)
- SA-42 George P. Shultz Center – National Foreign Affairs Training Center (NFATC)
- SA-58 Portsmouth Consular Center (PCC)
- SA-61 Florida Regional Center (FRC)
- SA-59 Charleston Regional Center (CRC)
- SA-62 Kentucky Consular Center (KCC)

In addition to absolute GHG reduction goals, the Department is also committed to reducing facility energy intensity and increasing its renewable energy use.

- b. Sub-goal (a.)[Buildings] – Agency lead for goal:** The Department's Sustainability Plan was developed by cross-functional working groups. The agency lead for Goal 1 is the Bureau of Administration (A). This bureau has program responsibility for domestic facility management, fleet management, real property management, and logistics management.

The Office of Management Policy, Rightsizing, and Innovation (M/PRI), the Under Secretary for Management's central management organization, has overall responsibility for plan development and implementation. M/PRI provides guidance to offices and working groups, and ensures internal coordination and communication of the plan.

- c. Sub-goal (a.)[Buildings] – Implementation methods:** The Department's strategy to achieve the established FY 2020 GHG reduction goal is multifaceted, includes facility energy conservation measures, renewable energy, changing energy sources and efforts to reduce consumer/employee energy demand. Implementation will leverage existing effective programs

such as Environmental Health and Safety Management Systems (covering facility management operations); the Department High Performance and Sustainable Buildings Domestic Implementation Plan; and the Department Electronics Stewardship Plan and Data Center Consolidation Plan.

The established GHG goal is rooted in two critical assumptions:

- 1) The 20% Scope 1 and Scope 2 GHG reduction goal is limited to the Department's ten domestically owned/delegated facilities;
- 2) The Department is able to forge appropriate arrangements with its energy suppliers to purchase renewable energy to begin in FY2012;

Reduce Facility Energy Intensity – The Department intends to meet a significant portion of its GHG reductions at zero net cost through installing energy saving measures, such as efficient lighting and plumbing fixtures, possibly financed through ESPCs, depending in part on the financing aspects of the particular ESPC. Under these mechanisms, contractors would install energy saving equipment throughout Department buildings and the energy cost savings from these measures would be used to pay contractors for a set number of years. The Department's current installation of energy saving measures will address 80% of the domestic portfolio's energy consumption (HST, BIMC, NFATC, ICC and Blair House).

HST is a General Services Administration (GSA)-owned building for which operating authority has been delegated to the Department. While GSA is under the same mandates as the Department to improve energy efficiency in their renovations, the final determination of what is renovated at HST is dependent on appropriations for GSA's Capital Investment and Leasing Program.

The Department's capacity to expeditiously perform Life Cycle Cost (LCC) algorithms for all of the energy consuming equipment within its buildings portfolio is limited. The Department plans to incorporate enhanced capability into its computerized maintenance management system (CMMS), enabling quick analysis of how early replacement of energy-consuming equipment and the ranking of potential projects for best use of additional funding would impact GHG reductions – particularly for a 10-year outlook.

Reduce demand – The Department is evaluating several demand reduction policies to achieve GHG reductions. Information technology (IT) equipment is responsible for approximately half of the Department's energy use. The Bureau of Information Resource Management (IRM) and A are implementing a department-wide power management solution in phases. In the first phase, the Department leverages existing power management capabilities, such as "sleep" and "hibernate" modes, using existing methods and tools. For domestic locations, there is 100% compliance for enabling basic power management

features on workstations. The Department is also considering reducing IT energy demand by removing personalized IT services, such as personal printers/scanners, thus reducing energy load by relying only on network printers/scanners.

The second phase of the power management initiative is to fully deploy a single enterprise-wide solution that enables computers to be powered off when not in use and remotely powered up for security requirements, such as performing centralized patching and security compliance scanning.

Complementing these efforts, the GC will continue to review and evaluate the Department's business processes to determine how energy demand can be further reduced.

Increase Renewable Electricity Installation and Use – In FY 2010, electricity for HST, BIMC, SA-1, ICC, and Blair House was provided by PEPCO through a GSA contract which included five percent renewable energy. This was done with the purchase of Renewable Energy Credits (RECs). RECs are tradable, non-tangible renewable energy commodities. It is important to note that the energy associated with a REC is sold separately and is used by another party. The consumer of a REC receives only a certificate. RECs were used by the Department to meet its FY 2010 goal.

Throughout FY 2010 a new strategy was developed to dramatically increase the Department's use of renewable energy and, in particular, promote the build out of new renewable energy sources. In March 2011, the Department finalized and entered in to a 20-year Energy Savings Agreement with Constellation Energy that will provide the Department with 120,000MWh of energy annually for its capital region facilities; 45 percent of which will come from new sources of renewable energy – a wind and solar farm – starting in January 2012. This significant shift of renewable energy in the Department's energy portfolio greatly enhances the Department's ability to address its Scope 1 & 2 GHG reduction goal of 20 percent by FY 2020, and compliments the President's goal of the nation consuming 80 percent of its energy from renewable sources by 2035. Additionally, the agreement established a new contract model that other federal agencies can use to establish their own power purchase agreements for new sources of renewable energy, rather than relying solely on RECs.

In addition, the Department is focused on generating onsite renewable energy when possible. The Department's Charleston Regional Center (CRC - Building 84) is scheduled to achieve net zero energy with onsite solar and wind renewable energy generation by FY 2020.

HST is by far the largest contributor of GHG emissions within the domestic portfolio, representing 60 percent of the Department's total Scope 1 & 2 domestic emissions; therefore, a critical focus is on improving this facility's performance. The Department intends to address the efficiency of steam energy

delivered to HST by GSA, which is roughly 2.4 times less efficient than the default efficiency rate included in the Department of Energy's DART tool. The new Energy Savings Agreement will dramatically improve the facility's GHG performance.

Reduce per capita energy consumption through space management policies -

The Department ensures all new lease solicitations include the latest GSA 'green lease' standards to obtain the most energy-efficient space available. Telework and incorporating hot seating are also considered to assist in decreasing the Department's per capita energy consumption. The Department is also evaluating mobile workplace solutions on new major lease consolidation projects. The Department has promoted telework as a means of reducing emissions and addressing office space limitations - participation in the Department's telework policy continued to increase over the past year. Managers are asked to identify, support, and encourage increasing telework opportunities.

- d. Sub-goal (a.) [Buildings] – Positions:** The Department continues to assess the staffing needed to implement this portion of its plan and will address any additional requirements through the financial planning process. We acknowledge a need to redirect priorities for existing full time employee (FTE). The Department has no FTE fully dedicated to this goal.
- e. Sub-goal (a.) [Buildings] – Planning table:** See combined Goal 1 planning table for Buildings and Fleet.
- f. Sub-goal (a.) [Buildings] – Agency status & Highlights:** The Department anticipates managing additional domestic facilities over the next ten years. This may require the Department to amend its domestic GHG accounting and goal. The Department's Sustainable Buildings Implementation Plan (SBIP) requires all domestic new construction and major renovations to achieve a minimum LEED® Silver rating. Through the implementation of the SBIP, the Department will strive to limit and reduce its GHG emissions even as it adds additional needed facilities to its domestic portfolio.

During FY 2010, the Department continued ESPC work at the Department's five facilities in the Washington DC area (HST, SA-1, NFATC, Blair House and BIMC) with lighting retrofits, water conservation measures, and steam system improvements. HST's new operations and maintenance (O&M) contract will establish energy reduction goals. CRC newest building (Building 84) will achieve net zero energy. A new ESPC, which will renovate an HVAC plant at BIMC and provide major HVAC improvements at HST, is awaiting final internal approval.

Sub-goal (b.)[Fleet Management]

- a. Sub-goal (b.)[Fleet Management] – Goal description:** The Department has determined that its domestic fleet vehicles account for less than two percent of its total Scope 1 & 2 emissions. Therefore, the established reduction goal does not include domestic fleet vehicles due to their marginal impact. Nonetheless, the Department will continue to comply with the requirements for vehicle fleet management in E.O. 13423, E.O. 13514, and EISA §142.
- b. Sub-goal (b.)[Fleet Management] – Agency lead for goal:** The Department's Sustainability Plan was developed by cross-functional working groups. The agency lead for Goal 1 is the Bureau of Administration (A). This bureau has program responsibility for domestic facility management, fleet management, real property management, and logistics management.

The Office of Management Policy, Rightsizing, and Innovation (M/PRI), the Under Secretary for Management's central management organization, has overall responsibility for plan development and implementation. M/PRI provides guidance to offices and working groups, and ensures internal coordination and communication of the plan.

- c. Sub-goal (b.)[Fleet Management] – Implementation methods:** The Department is pursuing the following to reduce its fleet's environmental impact.
- i. **Reduce petroleum use in fleet vehicles.** E.O. 13423 requires agencies to reduce petroleum consumption of covered vehicles by two percent annually by the end of FY 2015 compared to a FY 2005 baseline. The Department's FY 2005 baseline petroleum consumption was 278,985 gasoline gallon equivalents (GGEs). The target reduction for FY 2010 was ten percent (two percent times five years [2006 to 2010, inclusive]) or a consumption level of 251,086 GGEs. In FY 2010, the Department consumed only 214,475 GGEs of petroleum fuel, far exceeding the target and achieving a decrease of 23 percent from the baseline.

The Department has realized success in this area through various means, including acquisition of more fuel efficient vehicles, notices to employees to reduce miles traveled in government vehicles (for example, by conducting business via tele-/video-conferencing, using commercial delivery services, conducting training by webinar, and using public transportation instead of driving), and educating vehicle operators to ensure they operate assigned vehicles in a fuel efficient manner. The Department will continue efforts to further decrease petroleum fuel consumption in out-years, including acquisition of more low-GHG emitting vehicles (LGHGEVs) and alternative fuel vehicles (AFVs), including hybrid electric vehicles (HEVs), while exploring new initiatives and new lean-burn technologies.

- ii. **Increase use of alternative fuels in fleet alternative fuel vehicles (AFVs) and Flex-Fuel Vehicles (FFVs).**ⁱⁱ The Department has a record of acquiring significantly more AFVs each year than is required by the Energy Policy Act (EPAct), which mandates that 75 percent of annual covered fleet acquisitions must be AFVs. This has been achieved primarily through the acquisition of FFVs, which can be refueled with unleaded regular gasoline or E85, a fuel blend of 85 percent ethanol and 15 percent gasoline. FFVs are commonly produced by U.S. manufacturers and are widely available in various body styles and configurations that meet mission requirements; in FY 2010, 46 percent (652 vehicles) of the Department's domestic fleet were FFVs.

The availability of E85 fuel, however, is limited. Thus, the Department continues to fall short in meeting the Energy Independence and Security Act of 2007 (EISA) requirement to increase AF consumption by ten percent per year (compounded annually) from the FY 2005 baseline, despite some usage of two other alternative fuels: compressed natural gas (CNG), with which 11 natural gas vehicles are fueled, and biodiesel, which is used by 11 diesel vehicles. While the alternative fuel use is increasing each year, and in fact it more than doubled in FY 2010 over the previous year, the Department will have difficulty catching up with the exponentially-increasing target, based on projections reflected in the Federal Automotive Statistical Tool (FAST), as shown below:

AF Fuel Consumption	Baseline FY 05	FY 06	FY 07	FY 08	FY 09	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15
Usage (GGE)	28,480	22,892	12,462	13,192	14,115	29,062	Future	Future	Future	Future	Future
Target (Increase AF Fuel consumption by 10% per year, compounded annually)	N/A	31,328	34,460	37,906	41,697	45,867	50,454	55,499	61,049	67,154	73,869

In order for the Department to meet the EISA requirement an increased consumption of E85 is required. Implementing this strategy, however, is problematic, as it is for most federal agencies, due to the limited commercial AF fueling infrastructure. The U.S. Department of Energy's Alternative Fueling Station Locator web site (<http://www.afdc.energy.gov/afdc/locator/stations/>) indicates there are only six E85 refueling sites within a ten-mile radius of the Department's headquarters, only four within five miles, and only one within two miles.

Complicating the matter, the one refueling station within the two-mile radius is scheduled to close in October 2011, with no plans for relocation. Note: given the DC area's traffic congestion and the locations of the refueling stations, several man-hours are lost in refueling taskings. The Department continues to work with other agencies to develop a solution.

Further hampering the Department's performance in increasing AF consumption is the increased number of HEVs it acquires each year in order to meet the mandate to reduce petroleum fuel consumption. While increased HEV acquisition is noteworthy with respect to petroleum consumption and GHG emissions reduction mandates, it is actually counter-productive to increasing AF consumption because the HEVs operate primarily on petroleum fuel, not on an AF. This presents "competing mandates" that cannot be resolved at the agency level, at least not until vehicle manufacturers begin producing HEVs that operate on an AF or there is a change to the mandates. The Department suggests the establishment of a singular mandate for petroleum fuel consumption reduction. Under this scenario, the mandate would drive an increase in AF consumption, an increase in acquisition of HEVs, and a corresponding decrease in GHG emissions and petroleum consumption.

The Department continues the following efforts to increase AF consumption:

- Collecting better metrics on actual AF consumption. Commercial refueling sites often miscode AF as petroleum fuel (and vice-versa) on purchase receipts and monthly invoices. This necessitates AF consumption to be estimated, leading to the possibility that the Department is actually consuming more AF than reported.

The Department now requires all custodians of non-exempt (non-law-enforcement) FFVs and bi-fuel CNG vehicles in the District region to file a monthly fuel report. Drivers/vehicle custodians record the type and amount of fuel purchased whenever a vehicle is refueled. The AF data from the drivers/custodians is entered into a database, which facilitates better tracking of fuel consumption and better communication with custodians.

- The Department continues measures to increase AF consumption in all dual-fuel AFVs, including waived and exempted (law enforcement) AFVs wherever possible, by motivating operators of FFVs and bi-fuel natural gas vehicles to refuel more with E85 and CNG, respectively. As positive encouragement, emails are sent to vehicle custodians and/or operators recognizing those who increased AF consumption in their assigned AFVs. As a disincentive, whenever it is determined that a dual-/flex-fuel AFV could have fueled with an AF but instead fueled with petroleum fuel, a written notification of the "missed opportunity" is

sent to a vehicle custodian with a copy sent to the custodian's upper management.

The Department has re-familiarized vehicle operators with the requirement for non-waived dual-fuel AFVs to use E85 or CNG, which has been facilitated by the requirement to provide monthly fuel reports (described in the previous section), and by direct contact with drivers and vehicle custodians when an AFV is refueled with gasoline rather than the AF.

- The Fleet Manager facilitates the enforcement of procedures, such as the completion of monthly fuel logs, ordering right-sized vehicles, filing waivers, and complying with regulatory requirements, especially in the use of alternative fuel.

Appointing this dedicated authority positively impacts AF consumption, while simultaneously meeting the EPA's EISA § 141 Guidance document (February 23, 2010) recommendation that each federal agency should consolidate the responsibility for EISA § 141 low-GHG certifications in one office to maintain consistency and facilitate program oversight and recordkeeping.

- The Department continues to pursue opportunities to increase the availability of E85 by networking with other federal agencies, attending private industry trade shows/conferences, actively participating in Department of Energy-sponsored working groups, and maintaining contact with various entities of the Clean Cities coalition. While efforts to install AF infrastructure (including E85, CNG and biodiesel) onsite are hampered by real estate and funding limitations, as well as concerns about the Department's ability to adequately turn over fuel stock and operate such a facility, the possibility and feasibility is being explored. The current consensus, however, is that the most likely means of increasing AF consumption is to ensure the FFV fleet reinforces market demand by utilizing existing commercial infrastructure at every opportunity, which would also be the most cost effective and expeditious means of achieving that goal.
- iii. **Optimize use of vehicles and right-size fleet.** On average in FY 2010, domestic Department vehicles realized utilization of approximately 7,386 miles per vehicle, indicating a relatively well-optimized utilization. In order to right-size the fleet, which requires not only ensuring that the right quantity of vehicles is assigned but also the correct type of vehicle is assigned to each mission, the Department currently determines domestic fleet composition on a micro-basis (rather than on a macro-basis across the fleet) through the use of an allocation methodology centered on individual vehicle justification and approval.

For new vehicle assignments, each vehicle must be justified by the requesting office, then reviewed and authorized on a case-by-case basis by the providing office, with emphasis for authorization placed on a combination of factors including the number of employees supported, the number of anticipated miles/trips per year, operating conditions, potential for shared use of vehicles, impact on "green fleet" mandates/initiatives, and mission criticality. For replacement vehicles, existing fuel-efficient vehicles and AFVs are routinely replaced "in kind" after revalidation of need by the vehicle custodial office, while less fuel efficient vehicles (such as SUVs and 4x4s) require justification before a like vehicle will be provided at the end of the existing vehicle's life-cycle. In all cases, emphasis is placed on providing more fuel efficient (e.g., smaller or front-wheel drive) vehicles, AFVs, and/or LGHGEVs whenever possible. Since the overall fleet composition reflects the sum total of each individual vehicle justification and authorization decision, the actual fleet represents a "right-sized" fleet composition.

Related to the rightsizing effort, in FY 2010 the Department utilized an electronic tool to more quantitatively validate the results of its existing vehicle allocation methodology. The results of the electronic tool for the domestic fleet will be utilized in out-year vehicle assignment and acquisition planning to fine-tune the existing vehicle assignment methodology, which will in turn assure a more 'right-sized' fleet.

- iv. **Increase use of low emission and high fuel economy vehicles.** As indicated in response to previous fleet-related sustainability sub-goals, the Department emphasizes acquisition of the most fuel-efficient vehicles necessary to meet mission requirements, which results in increased use of low-emission vehicles. From FY 2009 to FY 2010, the Department increased its inventory of FFVs by 96 vehicles and of fuel-efficient, low-emission HEVs by 12. As additional LGHGEVs/high fuel economy vehicles become available, including plug-in hybrid electric vehicles, the Department will increase its inventory of such vehicles and continue a trend of increasing fuel economy while simultaneously decreasing harmful emissions. Finally, the Department is also emphasizing an increase in consumption of biodiesel fuel, which while not burned in low-emission vehicles per se will lead to lower GHG emissions, and acquisition of vehicles with lean-burn technology, which will increase fuel economy while decreasing harmful emissions.
- v. **Replace conventional senior executive fleet with low-GHG emitting, highly efficient vehicles.** The current fleet of vehicles utilized domestically to support Department senior executives (below the Deputy Secretary level) consists of commercially leased FFVs of various makes and sizes consistent with agency mission support requirements. These vehicles are routinely leased via three to five year contracts in order to obtain optimal pricing; the make, model and fuel type is

reviewed prior to each contract period to ensure that the most efficient vehicles that also meet mission requirements and conform to “green-fleet” mandates are acquired.

- vi. **Streamline existing agency shuttle bus routes by consolidating ridership with other agencies.** The Department’s shuttle bus routes have been reviewed by GSA under the Federal Shuttle Bus Study. Recommendations were made to eliminate one route and consolidate four other routes in-house. These recommendations were taken under advisement and the Department is currently seeking the consensus of the users.

One challenge to consolidating and/or sharing transportation services among agencies is funding, as it is difficult to first allocate costs based on ridership and then to effect an actual transfer of funding or sharing of costs, especially if the service is contracted. Another challenge is that the priorities of one partner agency may shift (either on a long-term basis or possibly in the middle of a specific day due to an emergent situation); if that agency “owns” the assets used for the service and decides to shift those assets to meet a greater need, other partner agencies will be left without critical service.

Another issue is conflicting ridership policy at partner agencies, as one may allow for employees to use the shuttles from mass transit facilities and another may not, or one agency may allow dependent family members or contractors to ride and another may not, making coordination, partnership and proper allocation of resources difficult.

Finally, most of the Department’s shuttle routes are already optimized and at full capacity during peak hours without the additional demand of other agency passengers. To accommodate other agencies’ passengers, the Department would be required to add capacity, which would be counter to the Department’s resource allocation and environmental goals.

- vii. **Agency efforts to implement sustainable transportation options:** The Department has established a procedure for considering whether or not LGHGEVs are available that meet mission requirements for vehicle acquisitions. This procedure requires that “alternative measures” or “functional needs” exceptions, as described in EPA’s guidance document for EISA § 141, are approved prior to acquisition of non-LGHGEVs. The Department’s other efforts to implement sustainable transportation options are described in the paragraphs above. One challenge to this effort is the more recent emphasis on LGHGEVs; agencies must plan acquisitions in advance, but the GHG “score” for specific vehicle makes/models is subject to change from year to year (so a vehicle that was classified as a LGHGEV one model year, may not be so the next, and in fact may be classified as a LGHGEV at time

of acquisition order placement but not at delivery), which makes vehicle acquisition planning extremely difficult.

- d. Sub-goal (b.)[Fleet Management] – Positions:** For Fleet-related activities contained in this plan, the Department is adequately staffed to address current requirements and known issues. Two Department employees provide primary support to the program on a collateral-duty basis; one of these employees spends approximately 25 percent of his time on vehicle-related sustainability issues, and the second employee spends approximately 50 percent of his time on such issues. In addition, the efforts of these two individuals are augmented by various fleet stakeholders (primarily sub-fleet managers and their respective staffs) on a collateral duty basis as needed, and by a commercially contracted consultant organization when needed.

In total, approximately two FTE are dedicated to vehicle-related sustainability issues each year (including data-collection/input into the Federal Automotive Statistical Tool [FAST] for various tasks, preparation of annual reports, oversight of the OMB Scorecard, development and implementation of strategic/sustainability plans, oversight of vehicle acquisitions and fuel-management functions, alternative fuel infrastructure identification and development, development of internal policy, and attendance at federal-level meetings, conferences and working groups [such as those sponsored by GSA and DOE] that address vehicle sustainability issues).

- e. Sub-goals (a. & b.)[Buildings/Fleet Management] – Planning table (see next page):** As the Department advances its plans, it will inevitably receive new assignments and resource changes, and thus it may refine its GHG strategy and adjust its reduction goals as appropriate to account for changing operations.

	GOAL 1 - SCOPE 1&2 GHG TARGET	Unit	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15	FY 16	....	FY 20
Buildings	Energy Intensity Reduction Goals <i>(BTU/ft² reduced from FY 03 base year)</i>	%	15 %	18 %	21 %	24 %	27 %	30 %	hold	....	hold
	Planned Energy Intensity Reduction³ <i>(BTU/ft² reduced from FY 03 base year)</i>	%	SEE NOTE BELOW						30 %			
	Renewable Electricity Goals <i>(% of electricity from renewable sources)</i>	%	5 %	5 %	5 %	7.5 %	hold	hold	hold	hold	hold	
	Planned Renewable Electricity Use <i>(% of electricity from renewable sources)</i>	%	5 %	5 %	5 %	7.5 %	hold	hold	hold	hold	9 %	
Fleet	Petroleum Use Reduction Targets <i>(% reduction from FY 05 base year)⁴</i>	%	10 %	12 %	14 %	16 %	18 %	20 %	22 %	....	30 %
	Planned Petroleum Use Reduction⁵ <i>(% reduction from FY 05 base year)</i>	%	23%	ON TRACK TO EXCEED TARGETS								30%
	Alternative Fuel Use in Fleet AFV Target <i>(% increase from FY 05 base year)⁶</i>	%	61 %	77 %	95 %	114 %	136 %	159 %	hold	....	hold
	Planned Alternative Fuel Use in Fleet AFV <i>(% increase from FY 05 base year)</i>	%	2%	Not on track to meet target; see narrative in Section 2) of 1.b. on "Fleet"								
	Senior Executive Fleet Replaced with Low-GHG, High Efficiency Vehicles (Percent replaced from FY 08 base year)⁷	%	0	SEE NOTE BELOW			0	0	0	0	...	0
	Scope 1 & 2 - Reduction Target <i>(reduced from FY 08 base year)</i>	%	-	2 %	4 %	6 %	8 %	10 %	....	....	20 %
	Total Scope 1 & 2 GHG Emissions (Subject to Agency Scope 1&2 Reduction Target)	MT CO 2e	69,533	TBD	TBD	TBD	TBD	TBD	TBD	TBD	TBD	

³ The Department strives to achieve the mandated 30% reduction in energy intensity by FY 2015. Our glide path will not necessarily align with the projected linear year-to-year targets, but will track with proposed and planned energy conservation projects and initiatives.

⁴ The Department strives to achieve the mandated 30% reduction in energy intensity by FY 2015. Our glide path will not necessarily align with the projected linear year-to-year targets, but will track with proposed and planned energy conservation projects and initiatives.

⁵ In fleet vehicles.

⁶ The increased percentage of alternative fuel use is relative to the FY2005 baseline.

⁷ (*) Commercially leased FFVs, which are run primarily on E85 (vice gasoline), are currently used for Senior Executive transport below the Deputy Secretary level (for which protective service and/or light/siren/radio-equipped vehicles are utilized). In order to assure best value, these vehicles will be held for the maximum length of the existing contract (in order to realize the cost savings in the later years of the contract), with the intent to replace them with "in kind" or better models when a new contract is awarded. Since these vehicles already meet the new standard and out-year acquisitions will also meet the standard, the increase in out-years in the chart above is reflected as "0."

GOAL 2: SCOPE 3 GREENHOUSE GAS REDUCTION / DEVELOP & MAINTAIN AGENCY COMPREHENSIVE GREENHOUSE GAS INVENTORY

- a. Goal description:** The Department's Scope 3 target is established in two segments. In the first segment, the Department established an initial 2% FY 2020 greenhouse gas (GHG) reduction target for Scope 3 emissions relative to a FY 2008 baseline in accordance with E.O. 13514. This portion of the Scope 3 GHG emission reduction target applies to the Department's domestic operations - contracted waste disposal and transmission distribution losses from purchased energy. The second segment of the Department's Scope 3 target, which is currently under development, covers the Department's federal employee commuting and business travel emissions. The Department continues to review its options to measure and address these emissions and will submit an amendment to its Scope 3 target at a later date.
- b. Agency lead:** The co-lead offices for Goal 2; M/PRI and the Bureau of Administration (A). Contributing offices include the Office of the Under Secretary for Democracy and Global Affairs (G); the Bureau of Oceans, International Environmental and Scientific Affairs (OES); Human Resources (HR); Resource Management (RM); and Information Resource Management (IRM).

M/PRI has overall responsibility for plan development and implementation. M/PRI provides guidance to offices and working groups, and ensures internal coordination and communication of the plan.

- c. Implementation methods:** The Department intends to address GHG emissions related to its Federal Employee Commuting and Business Travel, Contracted Waste Disposal, and Transmission and Distribution Losses from Purchased Energy. The implementation strategy for each emission category is outlined below.
- I. *Federal Employee Travel* – The Department is committed to minimizing and, when able, reducing GHG emissions related to its federal employee commuting and business travel. The Department undertakes this challenge while being mindful not to negatively impact its core mission of international diplomacy.

To achieve this objective, the Department is conducting a series of preliminary surveys to determine what systems exist or need to be developed and deployed to enable proper monitoring and feedback on the Department's performance. From the data that is collected, the Department intends to analyze and project possible GHG reductions from its Federal employee travel and submit an updated Scope 3 target at that time. As the Department carries out its initial stages of surveying its Scope 3 GHG emissions, it is also developing and initiating an information campaign to better inform its workforce of the Department's responsibility to address its

travel emissions and how employees can contribute by minimizing their footprint.

Communications:

- Periodically, the Department issues department-wide notices that remind Department personnel to be vigilant on minimizing their travel. The GCWG is considering other communication methods to reinforce this message.
- The Department is working with Carlson-Wagonlit, the Department's contracted travel agent, to show Department travelers the carbon footprint related to their travel. The Department recently added a carbon calculator link on all travel itineraries issued to Department personnel. The Department intends to further the ease of use of this capability in the future. Though this is a small initial step, it signifies the Department's commitment to engage and educate its workforce – providing information that raises the awareness of our workforce about their individual impact and contribution to the Department's environmental footprint.
- The Department is considering means to require its authorizing supervisors to affirm that alternatives to travel were considered prior to moving forward with a travel plan. This is another tool to communicate to the Department's personnel, particularly managers and supervisors, their environmental responsibilities as Department leaders.

Digital Video Conferencing (DVC)

DVC is one of a few alternatives to travel. Though it does not fully substitute the in person interactions which are so vital to effective diplomacy, it does serve as an effective means to communicate in other areas, including administrative and internal Department discussions. In FY 2010 the Department conducted an estimated 14,550 DVCs worldwide. In addition to DVCs, the Department uses other communication tools as an alternative to travel – including Adobe Connect, Skype, GOTO Meetings, Live Stream and Second Life.

Among the options being considered by the Department is an initiative directive that travel not affecting diplomacy issues must be justified and approved by someone higher than the manager, such as a bureau's EX office or an office who will be responsible for not only the tracking the "carbon footprint" but the related cost. If this power is left with managers, they should be held accountable in some way.

Commuting

The Department continues to explore means to help minimize its workforce's commuting footprint - working with local public transportation when applicable (see Goal 3). The Department recently completed an initial commuter survey of its workforce and is exploring means to promote further use of public and pollution-free transportation. In this vein, the Department has enhanced its facilities to encourage biking, including installing dedicated showers for bikers, and is drafting further policy measures to provide sustained support for bicycle commuters.

Greening Council Working Group (GCWG) – Travel Team

The Department has established a new standing team to focus on reducing emissions from its Federal employee travel. The backdrop for the travel team is complex. The team must develop solutions within the context of the Department's growing global workforce, an ever-expanding international mission with multinational challenges and players, and the concept that effective diplomacy is inherently about interpersonal relationships and contacts. All of which suggests Department travel will likely need to increase in the future. The Department is under no illusions; travel is an essential tool for diplomacy. Reducing travel emissions requires scrutiny of one of the Department's fundamental business models. This task will not be easy; the Department's business culture will be challenged and ultimately, this exercise may only produce limited successes.

Challenges to explore include:

- Developing a flexible system that continually gathers reliable data
- Determining how each Department division uses travel to carry out their respective missions
- Determining which traveled missions and alternative travel solutions offer opportunities to reduce GHG emissions
- Developing viable alternatives to carry out activities that would have involved travel, if reduced travel is implemented
- Developing implementation plans with limited time and resources

Solutions to explore include:

- Promoting Digital Video Conferencing (DVC)
- Promoting Phone Conferences
- Promoting Web Conferencing/Communications
- Developing a criteria matrix for travel
- GHG Accounting/Budgeting for Supervisors
- Reducing Travel
- Interoffice/Interagency Travel Coordination

- II. *Contracted Waste Disposal* – The Department is committed to achieving 50 percent waste diversion by FY 2015 by increasing the amount of non-hazardous solid waste that is diverted annually as required in E.O. 13514 and to reducing greenhouse gas emissions related to contract waste disposal by 20 percent. The Department, however, is not prepared at this time to establish a GHG reduction target for contracted wastewater treatment as these emissions are calculated based on the number of federal workers employed by the Department. Based on current mission demands, the Department is likely to experience continued workforce growth over the next ten years. In an effort to advance continual improvement and achieve the 50% diversion goal, the Department recently formed a “National Capital Region Recycling Program Improvement Working Group” to identify and analyze more opportunities to improve recycling results at Department facilities.

All of the Department's domestic owned and delegated facilities have active recycling programs. These facilities, highlighted in Goal 1, are included in the Department's annual Sustainable Acquisition Practices: Green Purchasing, Waste Management, and Chemicals Management surveys. The Department's domestic portfolio is primarily located in the Washington, D.C. metropolitan region. A portion of the waste from the Department's Washington, D.C. area facilities is processed through Covanta Energy-from-Waste facilities, reducing associated GHG emissions.

It is Department policy⁸ to reduce the amount of solid waste produced in Department owned and delegated facilities, to salvage and recycle or reuse as much waste material as possible, and to dispose of non-recyclable or reusable solid waste in a manner that minimizes impact to the environment. Whenever possible, the Department strives to prevent the generation of hazardous waste and to act quickly and responsibly clean up and restore any areas under its jurisdiction that are contaminated. It is also Department policy⁹ to purchase recycled-content products whenever possible. The Department's Affirmative Procurement Program contains guidance for the purchase of such products including Energy Star® products, Federal Energy Management Program (FEMP)-designated energy-efficient products, water-efficient products, energy from renewable sources, bio-based products, alternative fuel vehicles and alternative fuels, and non-ozone depleting substances.

- III. *Transmission and Distribution Losses from Purchased Energy* – The Department maintains that transmission and distribution losses will be reduced as a consequence of reducing purchased electricity consumed (related to Scope 2 reduction). The Department established a GHG reduction target of 11 percent for purchased electricity transmission and distribution losses to align

⁸ See Supporting Document #6

⁹ See Supporting Document #7

with the planned reduction in purchased electricity, and a 20 percent target pending adequate resources.

The Department's strategy to achieve the related Scope 2 reductions is outlined in detail under the Goal 1 section of the plan. The implementation strategy will include facility energy conservation measures, efforts to reduce employee energy demand, renewable energy, and changing energy sources.

- IV. *Methods used to calculate Scope 3 GHG emissions* - The comprehensive GHG inventory that included Scope 1, 2 and 3 emissions was developed using the Department of Energy's Federal Energy Management Program's Annual GHG and Sustainability Data Report, Version 1.6. The Department verified Scope 3 data using other reporting datasets and confirmed totals with a peer review process.
- V. *Development of the Department of State FY 2010 Greenhouse Gas inventory* - The comprehensive GHG emissions inventory for fiscal year FY 2008 baseline year and FY 2010 is the Department's first comprehensive GHG inventory of its domestic operations. It was submitted to OMB/CEQ in January 2011.

d. Positions: The Department is continuing to assess the staffing level necessary to implement this plan and will address any additional requirements through the financial planning process for the budget. We acknowledge a need to redirect priorities of existing FTEs. The Department does not have an FTE fully dedicated to the Scope 3 GHG reduction and maintaining the GHG inventory.

e. Planning table: The Department has not established incremental annual targets at this time. The implementation strategy details will be refined in future years and incorporated in updates to the ASP.

GOAL 2 - SCOPE 3 GHG Reduction and Develop & Maintain Agency Comprehensive GHG Inventory	Units ⁱⁱⁱ	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15	...	FY 20
Total Scope 3 GHG Emissions (Comprehensive)	MTCO ₂ e	98,660	TBD	TBD	TBD	TBD	TBD	...	TBD
Total Scope 3 GHG Emissions (Subject to Agency Scope 3 GHG Reduction Target)	MTCO ₂ e	33,987	TBD	TBD	TBD	TBD	TBD	...	TBD
Overall Agency Scope 3 Reduction (reduced from FY 08 base year) ^{iv}	%	0	TBD	TBD	TBD	TBD	TBD	...	2%
Sub-Target for Contracted Waste Disposal	%	0	2%	2%	2%	2%		....	20%
Sub-Target for Transmission and Distribution Losses from Purchased Energy	%	0	TBD	TBD	TBD	TBD	TBD	....	11%

f. Agency status and highlights:

- a. The Department has begun a series of surveys to study how the Department uses travel and to identify areas, if any, that could be supplemented with other activities and tools.
 - b. In March of 2011, the Department conducted its initial survey of how the Department uses DVCs and what improvements could be made to encourage their use.
 - c. The Department has reviewed options to inform its workforce of the importance to limit its GHG emissions from air-travel.
 - d. The Department recently formed a "National Capital Region Recycling Program Improvement Working Group" to identify and analyze more opportunities to improve recycling results at Department facilities.
 - e. The Department has been implementing ESPCs to reduce its energy consumption and thereby reducing its transmission loss.
 - f. In March 2011, the Department was awarded the Bronze designation for the Bicycle Friendly Business program administered by the League of American Bicyclists in recognition of the Department's efforts to support employee bicycle commuting.
- g. Return on investment** - The Department does not have any significant projects or initiatives that were deliberately cancelled or suspended due to a lower than expected return on investment.

h. Develop and maintain agency comprehensive GHG inventory

The Department developed an initial GHG inventory for its domestic operations and activities within the continental United States encompassing Scope 1, 2, and 3 emissions, in accordance with E.O. 13514. The Department's GHG inventory includes emissions for a baseline year FY 2008 and the initial reporting year FY 2010. The Department will continue to work with the Department of Energy and other related agencies to refine and improve this inventory. Management of new and additional domestic facilities over the next ten years may require the Department to amend its GHG inventory baseline and reduction targets.

The Department will continue to leverage existing definitions, data collection tools and reporting mechanisms to generate its GHG inventory and minimize the need to develop new collection systems. The Department relies on standardized federal methodologies to calculate and report its Scope 1, 2, and 3 emissions. The Department used the DOE Federal Energy Management Program's Annual GHG and Sustainability Data Report, Version 1.6 to generate its GHG inventory.

The Department committed to conduct a global sustainability survey as part of the Greening Diplomacy Initiative launched by Secretary Clinton on Earth Day, April 22, 2009. It is currently gathering overseas data in response to this commitment. The overseas data will align with its domestic data; however it will be separately maintained for accounting and inventory purposes. The global sustainability survey will help the Department provide a more complete inventory of its greenhouse gas emissions, complementing the objectives of E.O. 13514.

GOAL 3: HIGH-PERFORMANCE SUSTAINABLE DESIGN/GREEN BUILDINGS & REGIONAL AND LOCAL PLANNING

- a. Goal description:** Implement High Performance Sustainable Federal Building Design, Construction, Operation and Management, Maintenance, and Deconstruction.
- b. Agency lead:** The Department's Sustainability Plan was developed by cross-functional working groups. The agency lead for Goal 3 is the Bureau of Administration (A). This bureau has program responsibility for domestic facility management, fleet management, real property management, and logistics management.

The Office of Management Policy, Rightsizing, and Innovation (M/PRI), the Under Secretary for Management's central management organization, has overall responsibility for plan development and implementation. M/PRI provides guidance to offices and working groups, and ensures internal coordination and communication of the plan.

c. Implementation methods.

- i. Beginning in FY 2020, all new Federal buildings are to be designed to achieve zero-net energy by FY 2030. Under the Department's current standard operating procedures (SOP), all new federally-owned buildings constructed for the Department will be designed to meet Goal 3 and other sustainability criteria. The Department will follow the interagency Federal Leadership in High Performance and Sustainable Building Domestic Implementation Plan (SBIP) ⁽¹⁾, signed in response to E.O. 13423, to address the above requirement.*
- ii. All new construction, major renovation, or repair and alteration of federal buildings will comply with "Guiding Principles for Federal Leadership in High Performance and Sustainable Buildings (Guiding Principles)". The Department has agreed to adhere to the Guiding Principles, pending continual resources to implement them. The Department will continue to improve documentation and oversight of building projects for improved transparency and resource management.*

The Bureau of Administration, Office of Operations' (A/OPR) existing SOP for building operations, the SBIP, satisfies requirements for meeting the Guiding Principles. The plan and its status of implementation are updated and reported annually to the Assistant Secretary of Administration to promote continuous improvement toward its objectives and institutionalizing the capabilities and capacities of A/OPR to ensure delivery of high performance and sustainable buildings.

- iii. *At least 15 percent of each agency's existing buildings and building leases meet guiding principles by FY 2015 [5,000ft² threshold for construction/renovation/ refurbishment of existing buildings and building leases].* Of approximately 9.3 million square feet of space leased from GSA, some 600,000 square feet, or 6.45 percent of this leased space is currently in compliance with the Guiding Principles.

To achieve conformance with the target, the Department would have to convert approximately 1.275 million square feet of its GSA leased space to new high performance and sustainable buildings by 2015, which would be cost-prohibitive and perhaps unrealistic in terms of available space for lease.

Moving into new high-performance buildings in general is more cost-effective than renovating existing space to meet the Guiding Principles; however, a consequence of such an initiative will be the additional move costs to upgrade to high performance and sustainable buildings that may not be fully offset by savings from vacating the older facilities. The Department is ensuring that all new leasing actions incorporate the latest GSA 'green lease' standards in its lease solicitations; however, it is unclear whether the 15 percent inventory target can be met through the normal lease acquisition process, which favors existing buildings and lease renewals over new leases. Lease renewals are not the typical instrument to upgrade space to high-performance and sustainable buildings. The Department will continue to explore its options with regard to this sub-goal.

- iv. *Demonstrate annual progress toward 100 percent conformance with Guiding Principles for entire building inventory.* The Department conforms to SBIP and OMB Scorecards, positive performance within these metrics assures environmental and energy intensity reductions and provides guidance for any required correction.
- v. *Demonstrate use of cost-effective, innovative building strategies to minimize energy, water and materials consumption.* The Department's examples include the D Street Pavilion Green Roof as part of the HST Modernization and Perimeter Security Projects, and several other energy saving measures underway. In addition, Building 84 in the Charleston Regional Center collects rainwater for subsequent use in flushing toilets and landscaping, thereby reducing water use by approximately 80 percent.
- vi. *Manage existing building systems to reduce energy, water and materials consumption in a manner that achieves a net reduction in agency deferred maintenance costs.* The Department's energy savings lighting project and commitment to modify SBIP satisfies the substance of this sub-goal.
- vii. *Optimize performance of the agency's real property portfolio – examine opportunities to decrease environmental impact through consolidation, reuse and disposal of existing assets prior to adding new assets.* Currently, this is

accomplished through optimization of the real property portfolio, by utilizing opportunities for the consolidation and co-location of bureaus and better logistics resulting in a reduction of lease overlap to avoid duplication of rent payments and associated operating costs. Teleworking and hot seating also assist in decreasing the Department's environmental impact.

Ensure use of best practices and technology in rehabilitation of historic Federal properties. The Department's SBIP includes a requirement for conformance with the Historic Preservation Act and techniques for restoration and preservation through our adherence to the Facilities Standards for GSA Public Building Service.

Incorporate sustainable practices into agency policy and planning for new Federal facilities and leases, and into lease renewal strategies. The Department assisted GSA with updates to the Green Lease to incorporate E.O. 13514 into the prospectus for the upcoming Consular Affairs consolidation. With these proposals, the Department will meet or exceed GSA' space utilization ratios (less energy will be required per person due to higher population densities) and employ shared spaces for copy/print peripherals with less idle time.

Demonstrate use of cost-effective, innovative building and sustainable landscape strategies to minimize energy, water and materials consumption. The Department will incorporate this new requirement as an update to our SBIP.

Operate and maintain, and conduct all minor repairs and alterations for existing building systems to reduce energy, water and materials consumption in a manner that achieves a net reduction in agency deferred maintenance costs. The Department's SBIP processes incorporate life-cycle cost analysis and commissioning to assure both the correct model is incorporated at the onset and operational performance is supported in sync with maintenance.

Optimize performance of the agency's real property portfolio – dispose and consolidate excess and underutilized property, co-locate field offices, consolidate across metropolitan and regional locations. The Department continues to work to consolidate in the Foggy Bottom area and to close or dispose of inefficient real property assets. The Department has recently consolidated the IRM Bureau into the SA-9 annex from several different annexes, improving operational efficiency.

Reduce need for new building and field office space by utilizing technologies to increase telework opportunities and expand delivery of services (over the internet or electronically). Participation in the Department's telework policy has steadily expanded over the past year. The Department is evaluating mobile workplace solutions on new major lease consolidation projects.

Conserve, rehabilitate, and reuse historic Federal properties, using current best practices and technology. The Department converted a gym into office space and achieved LEED® Silver Rating Commercial Interiors for the work in refurbishment. As part of the effort, the gym's historic features were incorporated into the design for preservation.

Align agency space actions (new leases, new construction, consolidation) with agency Scope 1, 2 and 3 GHG reduction targets. The Department's SBIP requires that all new leases, new construction and consolidation efforts incorporate Guiding Principles and align with its ASP targets. In addition, the Department is exploring innovations such as its initiative with GSA to incorporate a pilot project for commercially-based Energy Savings Performance Contracts into the lease of new space for the Department's Consular Affairs Consolidation (pending Congressional approval of prospectus).

- d. **Positions:** The Department is continuing to assess the staffing needed to implement this plan and will address any additional requirements through the financial planning process for the budget. We acknowledge a need to redirect priorities for existing FTE. The Department currently has no FTE that dedicate 100 percent of their time to this goal area.
- e. **Planning table:** The Department will continue to refine the planning tables in the months ahead to ensure that amounts are consistent with budget requests and enacted funding levels. The Department may recommend revisions to the targets based on new information and/or funding changes.

GOAL 3 - SUSTAINABLE HIGH PERFORMANCE BUILDINGS (Buildings Meeting Guiding Principles ⁽¹⁾)									
	*								
	Units	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15	...	FY 20
Owned Domestic Buildings	%GSF	1	2	3	4.5	6.5	7.5	...	TBD
FRPP-Reported Leased Domestic Buildings**	%GSF	0	6.5	7.5	8.5	10.5	10.5	...	TBD
Total Domestic Buildings	%GSF	1	8.5	10.5	13	17	18	...	TBD
REGIONAL AND LOCAL PLANNING									
Other, as defined by agency	N/A	N/A	N/A	N/A	N/A	N/A	N/A	...	N/A

* Note: Units are a percentage of total square foot for domestic facilities.

** Note: FRPP Leased building includes GSA leases.

- f. **Agency Status & Highlights:** On January 24, 2006, the Department signed the *Federal Leadership in High Performance and Sustainable Buildings Memorandum of Understanding (MOU)* to commit to Federal leadership in implementing common strategies for planning, acquiring, site positioning, designing, constructing, operating, and maintaining high performance and sustainable buildings. Twenty-one federal agencies signed the MOU. The MOU establishes a common set of *Guiding Principles* to 1) employ integrated design principles; 2)

optimize energy performance; 3) protect and conserve water; 4) enhance indoor environmental quality; and 5) reduce environmental impact of materials. These Guiding Principles will help the Department achieve the following MOU goals:

- **Reduce** the total ownership cost of facilities;
- **Improve** energy efficiency and water conservation;
- **Provide** safe, healthy, and productive built environments; and
- **Promote** sustainable environmental stewardship.

The Department has implemented the SBIP at all spaces above the 5,000ft² threshold for existing buildings and building leases. The HST Modernization Phase II Prospectus, Buildings 84 and 644 in Charleston, S.C. and the ARRA-funded ESOC-West Data Center will build on the SBIP Guiding Principles to add quality space to the Department's building inventory. In addition, the Department is continuing its installation of energy-saving measures to reduce overall energy intensity at HST and Blair House.

Additional funds will be requested for the HST Modernization Phase II prospectus in order to meet this goal, which would likely result in early completion of this goal for one-quarter of the Department domestic space inventory. Lastly, the replacement cycle for major equipment units within the headquarters facility, such as building chillers, will coincide with the milestone to achieve zero-net energy for HST by 2030.

Energy savings mandates for improvements at HST and other Department-owned or delegated facilities have significant budgetary implications. Because of the size of HST and its proportion of the Department's overall real property inventory and energy use, the HST Modernization provides the best opportunity to achieve conformance with energy savings mandates. Currently the HST Modernization and similar projects partially meet the goals of the Guiding Principles.

In the multi-year, multi-phase design and construction project for the modernization of the HST building, the Department is striving to improve the building's energy consumption and identify opportunities for sustainability. This includes initiatives for greater water efficiency, improvements over the American Society of Heating, Refrigeration, and Air-Conditioning Engineers (ASHRAE) 90.1-2007 standard for energy conservation measures, recycled and salvaged construction waste, incorporation of sustainable construction materials and improvement in indoor environmental quality. The Phase 1B Renovation will attain LEED® Silver status under LEED® v3.0 for New Construction and Major Renovations and the following Phase 1C will also attain a minimum of LEED® Silver under LEED® v3.0. The HST Modernization Phase II Prospectus will allow additional opportunities to address and build on the SBIP Guiding Principles.

H. Regional and Local Planning:

- i. *Incorporate participation in regional transportation planning (recognition and use of existing community transportation infrastructure) into existing policy and guidance* – The Department continues to explore opportunities to leverage the Washington Metro Area Transit Authority (WMATA) transportation infrastructure to reduce duplicate transportation activities between the Department and WMATA and to reduce traffic burden on the city. Currently, the Department promotes employee use of WMATA by providing rider subsidies.
- ii. *Align Agency Policies to Increase Effectiveness of local energy planning* – The Department contributes to several regional planning organizations including, DOE's Interagency Energy Management Taskforce, DOE's Interagency Sustainability Working Group and both the Data Center Working Group and Operations and Maintenance/ Metering subcommittees, and the D.C. Greening Embassies Forum.
- iii. *Incorporate sustainable building location into policy and planning for new Federal facilities and leases* – The Department's SBIP requires consideration of Guiding Principles in planning for sustainable site acquisitions. The Guiding Principles were incorporated into the site design for the leased American Pharmacy Association (APhA) facility. In addition, the Guiding Principles are informing a new prospectus request for lease acquisition of the World Bank Building to increase Department inventory of LEED®-compliant buildings.

The Department manages its leased portfolio to maximize co-location and synergy of personnel. Plans are developed two to three years in advance for consolidations and large lease prospectus projects. An example of the local opportunities is the planned consolidation of the Bureau of Consular Affairs from six locations to one location in the Foggy Bottom area.

- iv. *Update agency policy and guidance to ensure that all Environmental Impact Statements and Environmental Assessments required under the National Environmental Policy Act (NEPA) for proposed new or expanded Federal facilities identify and analyze impacts associated with energy usage and alternative energy sources* – Department Guiding Principles include NEPA compliance for all new or expanded facilities. In addition, LEED® measurement and verification processes were incorporated to show energy intensity reductions and to gain points for alternative energy resourcing.
- v. *Update agency policy and guidance to ensure coordination and (where appropriate) consultation with Federal, Department, Tribal and local management authorities regarding impacts to local ecosystems, watersheds and environmental management associated with proposed new or expanded Federal facilities* – The Department's current policies and guidance require full coordination and compliance with Department and local jurisdictional authorities to minimize impacts to local ecosystems, watersheds and environmental management at all new or expanded Federal facilities.

vi. *Status & Highlights:* The Department, under the rubric of the DC Greening Embassies Forum, is working with the DC government to develop sustainability goals for the forum's foreign mission membership. The Forum has also conducted energy benchmark training for facility managers of the foreign missions. The Department is also in discussion with the National Capital Planning Committee (NCPC) and the DC government in the development of a Diplomatic Garden, a sustainable community garden with contributions from the Department and foreign missions in the District.

GOAL 4: WATER USE EFFICIENCY AND MANAGEMENT

a. Goal Description: This requirement applies to the Department's current domestic portfolio of owned and delegated facilities:

- HST Harry S Truman – Main Department
- SA-1 Columbia Plaza
- SA-51 Blair House - President's Guest House
- SA-26 Beltsville Information Management Center (BIMC)
- SA-33 Federal Building - International Chancery Center (ICC)
- SA-42 George P. Shultz - National Foreign Affairs Training Center
- SA-58 Portsmouth Consular Center (PCC)
- SA-61 Florida Regional Center (FRC)
- SA-59 Charleston Regional Center (CRC)
- SA-62 Kentucky Consular Center (KCC)

Department goal targets are:

- Reduce domestic water use intensity by 26 percent by FY 2020
- Reduce domestic landscaping water use by at least 20 percent by FY 2020¹⁰
- Identify and implement water reuse strategies.
 - Office buildings: the Department will evaluate gray water use for landscaping irrigation to reduce potable water consumption.
 - HVAC cooling towers: the Department will evaluate rain water collection and storage.
- Achieve objectives established by EPA in Storm Water Guidance for Federal Facilities. The Department will evaluate rainwater harvesting, green roofs, and other storm water options for our existing buildings. For new facilities our Sustainable Building Implementation Plan (SBIP) requires design compliance with EPA guidance.
- Incorporate appropriate reduction strategies for non-potable water use into agency policy and planning.

b. Agency Lead: The Department's Sustainability Plan was developed by cross-functional working groups. The agency lead for Goal 4 is the Bureau of Administration (A). This bureau has program responsibility for domestic facility management, fleet management, real property management, and logistics management.

The Office of Management Policy, Rightsizing, and Innovation (M/PRI), the Under Secretary for Management's central management organization, has overall responsibility for plan development and implementation. M/PRI provides guidance to offices and working groups, and ensures internal coordination and communication of the plan.

¹⁰ The Department does not have industrial or agricultural water use.

- c. Implementation methods:** Domestic water use intensity reduction will be primarily accomplished by the replacement of old plumbing fixtures and faucets in our facilities.

Domestic water consumption last year for these facilities was dominated by HST at 62 percent of total (67,568,000 gallons used). HST is a GSA-owned facility with operation delegated to the Department. Phased renovations by GSA will eventually replace existing fixtures but not in time to meet annual targets. In December 2009, the Department signed an Energy Savings Performance Contract (ESPC) that included the replacement and retrofit of plumbing fixtures for five of our Washington area facilities.

Sub-metering will be used to identify and manage landscape and specific water consumption. The Department will also use re-commissioning to assist with water reduction target achievement. Facility managers are charged with meeting reduction targets and directing the support of the facility Operations and Maintenance (O&M) contractor. Portfolio water use is tracked by both facility-level personnel and headquarters personnel.

The Department's High Performance and Sustainable Building Implementation Plan (SBIP) will be revised to include E.O. 13514 water efficiency and management goals for GSA renovation projects and new building designs. The SBIP update will also address policy guidance on appropriate reduction strategies for non-potable water use.

The Department anticipates managing additional domestic facilities over the next ten years. The Department's Sustainable Building Implementation Plan (SBIP) requires all domestic new construction and major renovations to achieve a minimum LEED® Silver rating and will be revised to also include E.O. 13514 requirements for storm water and water reuse strategies. Through the implementation of the SBIP, the Department will strive to achieve water use efficiency and planning goals even as it acquires additional facilities within its domestic portfolio.

- d. Positions:** The Department is continuing to assess the staffing needed to implement this plan and will address any additional requirements through the financial planning process for the budget request. We acknowledge a need to redirect priorities for existing FTE. The Department currently has no FTE that dedicate 100 percent of their time to this goal area.
- e. Planning table (see next page):** The Department may recommend revisions to the targets based on new information. Furthermore, if the Department is required to take into account new facilities, the targets will need to be modified.

GOAL 4 - WATER USE EFFICIENCY & MANAGEMENT	Units	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15	...	FY 20
Potable Water Reduction Targets <i>(gal/ft² reduced from FY 07 base year)</i>	%	6 %	8 %	10 %	12 %	14 %	16 %	....	26 %
Planned/Actual Potable Water Reduction <i>(gal/ft² reduced from FY 07 base year)</i>	%	6 %	8 %	10 %	12 %	14 %	16 %	....	26 %
Industrial, Landscaping, and Agricultural Water Reduction Targets <i>(gal reduced from FY10 base year)</i>	%	-	2 %	4 %	6 %	8 %	10 %	....	20 %
Planned Landscaping Water Reduction <i>(gal reduced from FY10 base year)</i>	%	-	2 %	4 %	6 %	8 %	10 %	....	20 %

*Please see resources listed in Goal 1 (SCOPE 1&2 GHG TARGET) Planning Table, includes water projects in both energy saving measures and programmed funds.

f. Agency status & Highlights. FY 2009 water use reported to Department of Energy showed a slight increase in water use intensity over FY 2007 baseline. This was due to increased consumption at HST. HST Phase 1B and 1C renovation efforts will replace existing high-flow plumbing fixtures with new, low-flow units. An ESPC signed in December 2009 includes water retro-fits in HST, ICC, NFATC, BIMC, & Blair House. The Department plans to replace more than 1200 existing toilets, urinals, and faucets with low flow units over the next 14 months. The expected water savings should achieve short-term water reduction goals of 10 percent less than FY 2007 total portfolio consumption (meets FY 2012 reduction requirement). Water conservation measures bundled in our existing ESPC will provide low flow toilets and faucets for five of our Washington-area facilities. Our new LEED® Platinum Building 84 renovation at CRC utilizes rain water capture and ground source heat pump water for gray water use in the facility and irrigation and achieved a 30 percent reduction in storm water runoff from pre-project conditions.

GOAL 5: POLLUTION PREVENTION AND WASTE REDUCTION

a. *Goal Description:*

- Increase source reduction of pollutants and waste.
- Divert at least 50 percent non-hazardous solid waste by FY 2015, excluding construction and demolition (C&D) debris.
- Discuss agency strategies to reduce municipal solid waste sent to landfills and how implementation will assist the agency in achieving FY 2020 GHG reduction targets.
- Divert at least 50 percent C&D materials and debris by FY 2015.
- Reduce printing paper use.
- Increase use of uncoated printing and writing paper containing at least 30 percent postconsumer fiber.
- Reduce and minimize the acquisition, use, and disposal of hazardous chemicals and materials.
- Increase diversion of compostable and organic materials from the waste stream.
- Implement integrated pest management and landscape management practices to reduce and eliminate the use of toxic and hazardous chemicals and materials.
- Increase agency use of acceptable alternative chemicals and processes.
- Decrease agency use of chemicals to assist agency in achieving FY 2020 GHG reduction targets.
- Report in accordance with Sections (301-313) of the Emergency Planning and Community Right-to-Know Act (EPCRA) of 1986

b. *Agency lead:* The Department's Sustainability Plan was developed by cross-functional working groups. The agency lead for Goal 7 is the Bureau of Administration (A). This bureau has program responsibility for domestic facility management, fleet management, real property management, and logistics management.

The Office of Management Policy, Rightsizing, and Innovation (M/PRI), the Under Secretary for Management's central management organization, has overall responsibility for plan development and implementation. M/PRI provides guidance to offices and working groups, and ensures internal coordination and communication of the plan.

c. *Implementation methods.* The Department will continue existing programs and initiatives that support our compliance with the requirements outlined in E.O. 13514 for Pollution Prevention and mandated reporting in accordance with Sections 301-313 of EPCRA, and Section 6002 of the Resource Conservation and Recovery Act (RCRA). The Department's domestic owned and delegated facilities, listed earlier under Goal 1, are covered in our annual Sustainable Acquisition Practices: Green Purchasing, Waste Management, and Chemicals Management surveys.

The Department's Domestic Design Guidelines and Building Standards include waste minimization requirements following the hierarchy of reduction, reuse, recycling, and disposal. All construction and demolition (C&D) projects initiated by the Department include a requirement for 50 percent recycling of C&D debris. It is important to note that this requirement is not an annual goal but a per project goal for C&D recycling. The Department's domestic owned and delegated facilities have active recycling programs. GSA leases require a building owner to comply with local regulations and requirements; thus all leased facilities occupied by Department employees also conduct recycling at various levels.

The Department is also working to decrease paper consumption. In 2010, the Department began advocating for duplex printing and copying, including issuance of a Department Notice with instructions on how to set the default settings for all computers to double-sided printing. Currently, the Department only procures printers with double-sided capability. New internal policy for submitting papers to senior leadership requires that the mandatory copies be double-sided.

Global Printing Solutions (GPS), the Department's printing operation, already complies with the goal of using uncoated printing and writing paper containing at least 30 percent postconsumer fiber. The Department intends to make this a department-wide practice.

Current measurement of department-wide paper consumption is limited. Due to decentralized procurement practices, the Department plans to develop a system that provides a full inventory of paper consumption.

- d. Positions:** The Department continues to assess the staffing needed to implement this plan and will address any additional requirements through the financial planning process for the budget. We acknowledge a need to redirect priorities for existing FTE. The Department currently has no FTE that dedicate 100 percent of their time to this goal area.

e. Planning table:

GOAL 5 - POLLUTION PREVENTION & WASTE REDUCTION	Units	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15	...	FY 20
Non-Hazardous Solid Waste Diversion Targets (Non-C&D)	%	TBD	TBD	TBD	TBD	TBD	50%	...	50%
C&D Material & Debris Diversion Targets	%	50 %	50 %	50 %	50 %	50 %	50%	...	50 %
Diversion through Waste-to-Energy	Tons/pounds	0	0	0	0	0	0	...	0
Number of sites or facilities with on-site composting programs	#	0	0	0	0	0	0	...	0
Number of sites or facilities recycling through off-site composting programs	#	0	0	0	0	0	0	...	0

Estimated total weight of materials diverted to on-site or off-site composting programs	Tons/ pounds		N/A
% of agency-operated offices/sites with a recycling program	%	100 %	HOLD
% of agency offices located in multi-tenant buildings with a recycling program	%	100 %	HOLD
% of agency-operated residential housing with recycling programs	%		N/A

f. Agency status & Highlights: Over the years, the Department has implemented several product substitution, waste reduction and recycling initiatives, and service contract modifications to reduce the variety and amounts of hazardous materials and toxic chemicals used at domestic facilities. A green purchasing element is specifically identified in the Environmental Health and Safety Management System (EHSMS) program manual. The Compliance and Process Tracking System (CP Track) online software is used to review green purchasing program compliance for domestic facility custodial and O&M contracts.

To reduce paper consumption, many offices have moved to electronic methods of reporting. For example, weekly reports to senior management are now routed through Microsoft SharePoint websites instead of by paper or individual emails. Also, as a result of recent greening initiatives, many offices are analyzing their newspaper and periodicals and are cutting back on paper copies. Similarly, many offices are moving to electronic filing, which eliminates paper and frees space from filing cabinets.

The HST main cafeteria also uses 100 percent compostable, biodegradable disposable products. Once the HST cafeteria renovation is complete, the majority of cafeteria waste will be composted. Furthermore, when food demand in the cafeteria is miscalculated or external events such as weather/building emergencies result in overproduction, food is donated to the DC Central Kitchen.

The Department is committed to achieving 50 percent diversion of non-hazardous solid waste diversion by FY 2015. The Department currently recycles about 35 percent of its general trash and 75 percent of its construction demolition debris, and is committed to improve recycling rates in both categories. In addition to having an active recycling program at each of its buildings, the Department recently formed a “National Capital Region Recycling Program Improvement Working Group” to identify and analyze more opportunities to improve current recycling results at Department facilities.

GOAL 6: SUSTAINABLE ACQUISITION

- a. Goal Description:** Ensure 95% of new contract actions, including task and delivery orders under new contracts and existing contracts, require the supply or use of products and services that are energy efficient (Energy Star or FEMP-designated), water efficient, bio-based, environmentally preferable^v (excluding EPEAT-registered products), non-ozone depleting, contain recycled content, or are non-toxic or less toxic alternatives.^{vi}

Update agency affirmative procurement plans (also known as green purchasing plans or environmentally preferable purchasing plans), policies and programs to ensure that all mandated Federally designated products and services are included in all relevant acquisitions.^{vii}

- b. Agency Lead for Goal:** The lead offices for development, implementation, and oversight of this goal are the Office of Acquisitions Management (A/AQM) and the Office of the Procurement Executive (A/OPE) within the Bureau of Administration. However, it will require the cooperation of the entire Department, as acquisitions is a Department-wide function.

The Office of Management Policy, Rightsizing, and Innovation (M/PRI), the Under Secretary for Management's central management organization, has overall responsibility for plan development and implementation. M/PRI provides guidance to offices and working groups, and ensures internal coordination and communication of the plan.

- c. Implementation methods:** The Department follows the procurement regulations prescribed by the Federal Acquisition Regulations (FAR) and has updated its procurement policies to be in compliance with E.O. 13514 (see supporting documents).

SUSTAINABLE ACQUISITION CONTRACT REVIEW	1 st QTR FY 11	FY 11 Year to date (1 st & 2 nd QTR)	3 rd QTR FY 11 (Planned)	4 th QTR FY 11 (Planned)
Total # Agency Contracts		3862	TBD	TBD
Total # Contracts Eligible for Review		326	TBD	TBD
Total Contracts Eligible Contract Reviewed (i.e., 5% or more eligible based on previous OMB guidance)*		16	TBD	TBD
# of Compliant Contracts		13	TBD	TBD
Total % of Compliant Contracts		68%	TBD	TBD

Compliance Review:

In FY 2010, 79 percent of total acquisition dollars were spent on services and the balance was for products and goods. When we began our process of identifying eligible contract actions to review, we eliminated actions for professional, consulting, or technical services (e.g., R&D, studies, training) where few or no designated products are supplied or used. The contractors are providing deliverables, including invoices, financial reports, and technical reports in sustainable formats (e.g. electronically, double-sided on 30 percent postconsumer recycled content paper).

We further limited our acquisition transactions pool to those actions in support of our domestic operations, in keeping with the domestic focus of E.O. 13514. Due to local regulations, availability and other factors, our overseas operations cannot necessarily purchase green or sustainable items that are consistent with the applicable US laws, regulations, and executive orders. For example, the European Union "green" standards for electronics are different than those in the U.S. and under some circumstances higher than the U.S. requirements. From FPDS, we found 326 domestic transactions in the total pool of actions. A five percent random sampling of this pool equates to 16 transactions. The 16 transactions were identified using a random number generator. The individual transactions were manually audited by the Contracting Officer/Contract Specialist. Each action was evaluated to determine if the appropriate FAR clauses were in the contract, whether the contract/purchase order/delivery order contained any "green" specifications or products delivered.

The manual review of contract actions provided an entire spectrum of compliance from sustainable specifications for CFC replacement light bulbs to actions that had none of the FAR contract clauses.

Challenges:

The Department acknowledges additional actions necessary to achieve Goal 6, specifically:

- Improving data collection and verification capacity, and
- Training, communication, and outreach.

The Department is examining ways to efficiently and effectively capture, analyze, and track performance related to E.O. 13514 compliance.

Focusing on the demand side, the Department offers education and training to its employees and stakeholders in order to alter consumer behavior and raise awareness of sustainable procurement across the Department.

The Department promotes awareness of sustainable acquisitions through several venues such as the Contracting Officer's Representative (COR) conferences, Green Team meetings, and other greening and sustainability events that are sponsored at the Department. In addition, the Department's Greening Diplomacy Initiative (GDI) has a dynamic intranet site where greening and

sustainable information such as the Procurement Information Bulletins (PIBs) on acquisition policy can be readily announced and promoted.

d. Positions: An effective outreach program will facilitate the necessary changes throughout acquisition lifecycle. Dedicated staff will be required and program responsibilities will also need to be added as collateral duties for existing acquisition staff. A/LM/AQM plans to incorporate sustainable acquisition review into the existing quality control review functions and will utilize existing staff to perform these functions as part of the normal review process. A/LM/AQM Contracting Officers will be required to review source selection plans over \$500,000 for sustainable materials requirements prior to awarding the action. A/LM/AQM also plans to assign additional staff to implement policy, review achievement of goals and serve as an advocate for the use of sustainable materials in acquisitions.

Duties of this staff:

- Assist in the identification of environmentally-friendly specifications during acquisition planning and assist internal clients with development of such specifications
- Keep current on the ever-expanding lists of environmentally preferable products and services
- Review internal training material to incorporate E.O. 13514
- Work with the Department's largest contractors to ensure compliance
- Analyze and report on compliance progress
- Identify and develop internal policy changes, including updates to the Affirmative Procurement Plan¹¹
- Act a subject matter expert regarding this program
- Develop corrective action plans as necessary
- Identify program training opportunities throughout the organization

Until automated systems and tools are developed for capturing and analyzing data, future reporting and analysis will be limited with low quality and insufficient granularity. Dedicated human capital and expertise is required for outreach efforts to have broad scope and success.

e. Planning table.

SUSTAINABLE ACQUISITION	Units	FY	FY	FY	FY	FY	FY	...	FY
		10	11	12	13	14	15		20
New Contract Actions Meeting Sustainable Acquisition Requirements	%	n/a	95%	hold	hold	hold	hold	...	hold
Energy Efficient Products (Energy Star, FEMP-designated, and low standby power devices)	%	n/a	100%	hold	hold	hold	hold	...	hold
Water Efficient Products	%	n/a	95%	hold	hold	hold	hold	...	hold

¹¹ See Supporting Document #8

Bio-based Products	%	n/a	95%	hold	hold	hold	hold	...	hold
Recycled Content Products	%	n/a	95%	hold	hold	hold	hold	...	hold
Environmentally Preferable Products/Services (excluding EPEAT – EPEAT in included in Goal 7)	%	n/a	95%	hold	hold	hold	hold	...	hold
SNAP/non-ozone depleting substances	%	n/a	95%	hold	hold	hold	hold	...	hold
Other, as defined by agency	n/a	n/a	n/a	n/a	n/a	n/a	n/a	...	n/a

f. Agency Status & Highlights. The Department has taken many steps to embrace environmentally friendly acquisitions:

- Interior renovations of domestic facilities over 5,000ft² are currently required to be designed/constructed to meet a minimum of LEED[®] Silver certification. And for the interior renovation projects less than 5,000 ft² where LEED[®] certification is not practical, contracts include energy efficiency and sustainable design/construction requirements.
- Purchases of furniture, furnishings and equipment include a substantive goal for green purchasing and include an acquisition program run by subject-matter experts to ensure that Federally-mandated designated products and services are included in acquisitions associated with new construction, initial space alterations and renovations.
- All A Bureau-managed custodial, building operation and maintenance contracts include Buy-Green Affirmative Procurement Program requirements.
- The Office of Information Resource Management's Global IT Mobilization (GITM) procurement contracts include EPEAT clauses for large-scale purchases of computer equipment.
- The Department's comprehensive Affirmative Procurement Plan has been revised to incorporate E.O. 13514 and the Agency Sustainability Plan.

GOAL 7: ELECTRONIC STEWARDSHIP AND DATA CENTERS

- a.** Ensure acquisition of EPEAT registered, ENERGY STAR qualified, and FEMP designated electronic office products when procuring electronics in eligible product categories.

Through its Electronics Stewardship Plan, the Department strives to reduce the environmental impact of its electronic equipment in the areas of design, procurement, operations and maintenance, and end-of-life management. To help achieve these goals, the Department's Bureau of Information Resource Management (IRM) procures only Energy Star and Electronic Product Environmental Assessment Tool (EPEAT) compliant IT equipment for deployment in all consolidated bureaus and overseas missions. For its data centers, the Department purchases Energy Star rated servers and plans to pursue many of the draft EPA model guidance for Energy Star rated data centers. In addition, IRM installs only shared, duplex capable network printers and removes individual desktop printers as they become obsolete.

- b.** Establish and implement policy and guidance to ensure use of power management, duplex printing, and other energy efficient or environmentally preferred options and features on all eligible agency electronic products.

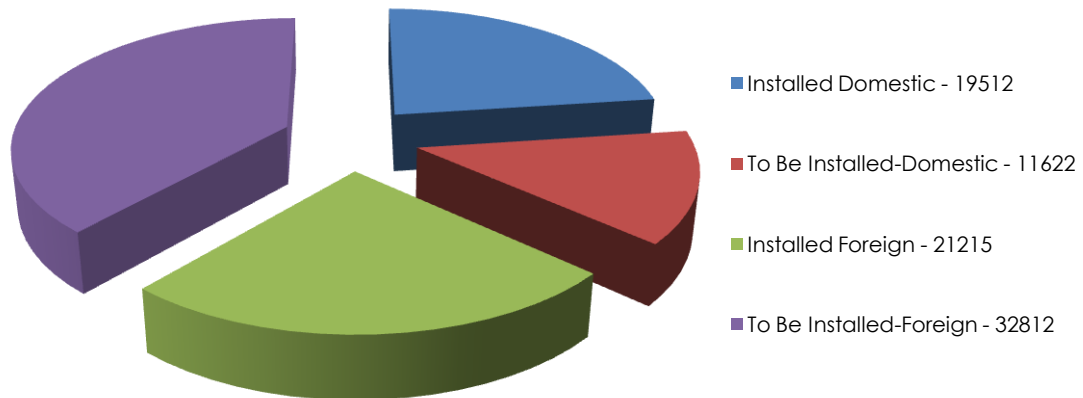
The Department drafted an enterprise-wide printer policy, which is going through the clearance process, to ensure the use of network printers and duplex printing. Domestically, the Department estimates that of the current printer inventory, 80% are network and 20% are desktop printers. Of the network printers, an estimated 90% are duplex ready. The Department's Global IT Modernization (GITM) office has been procuring and deploying duplex-ready printers for the last five years. The Department expects to complete deployment of duplex-ready printers in FY 2012. Duplex printing capability and Energy Star compliance are requirements for replacing legacy printers. The Department's long range objective is to reduce the number of personal desktop printers at both domestic and overseas sites in order to reduce energy use for printing by 20 to 25%.

With respect to Enterprise Power Management (EPM) and other efficient options and features on eligible electronic products, the Department developed plans to implement an EPM initiative, based on a phased approach. In July 2010, the Department approved 1E (a power management solution provider) for use on its networks and purchased 1E as its EPM solution to provide shutdown and wake-up services for all Department desktops. As of the first quarter of FY 2011, the Department completed a pilot

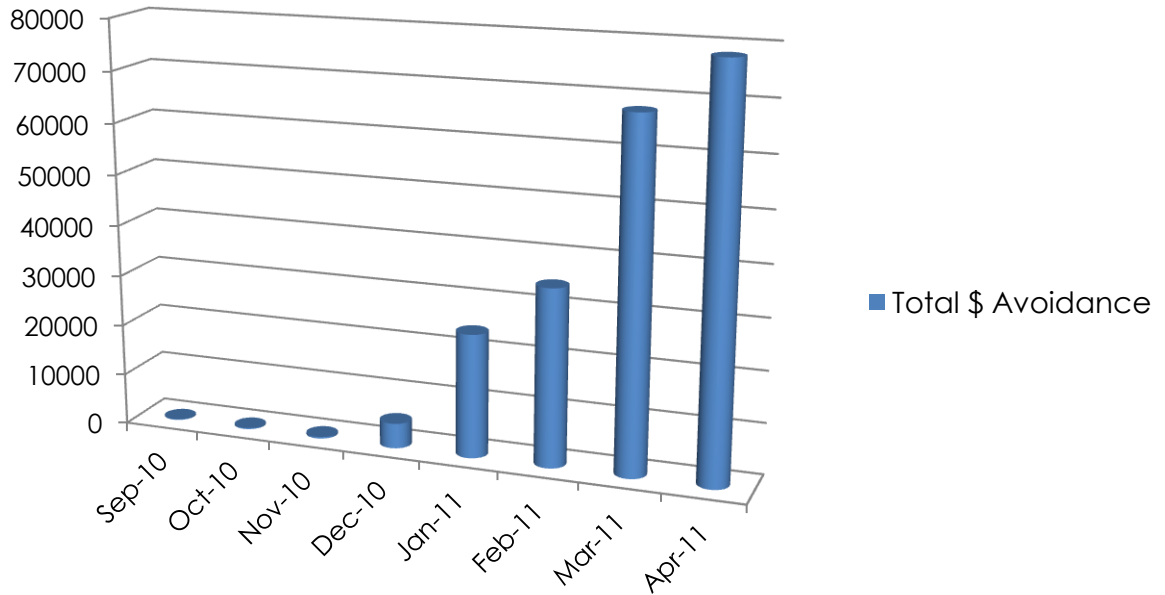
on a select group of desktops and expanded deployment to the entire enterprise. The deployment is occurring in two distinctive stages: (1) the software image is deployed to a management server at each site; (2) the central deployment team works with a local administrator to push the PM agent to all local desktop systems. The Department has completed the first stage of the deployment with 100% coverage of sites under Department management.

EPM has been deployed to 50% of the enterprise desktops with an estimated deployment of 70% by May 31, 2011. The Department estimates full deployment to be June 30, 2011.

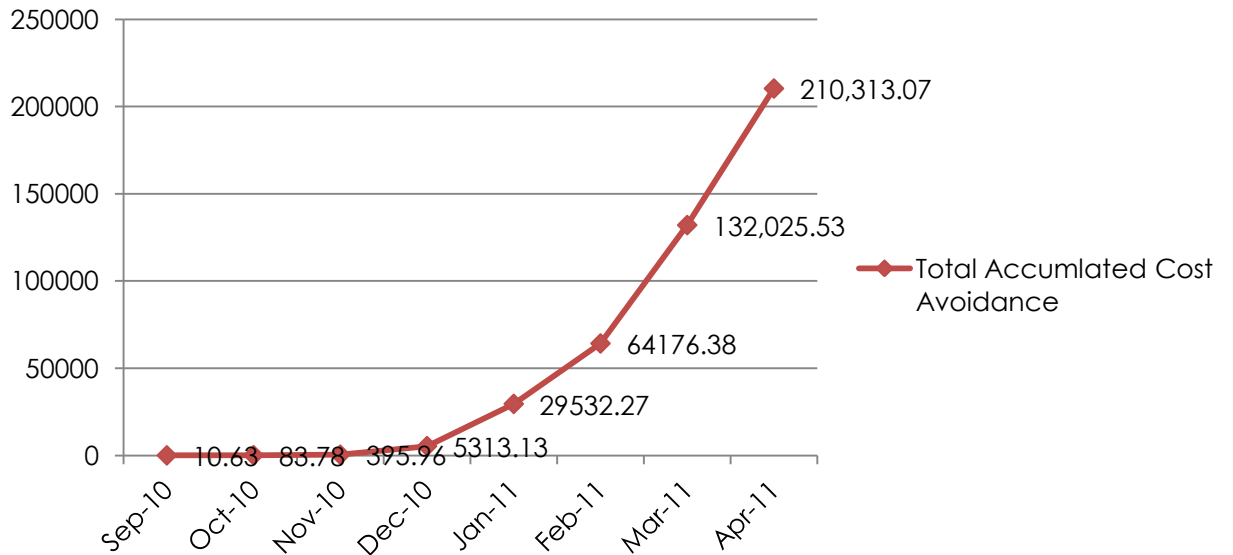
Power Management Installs



Total \$ Avoidance per Month



Total Accumulated Cost Avoidance



In addition to the EPM initiative, the Department plans to deploy Windows 7 enterprise wide. The Department is currently piloting a small number of Windows 7 machines on the unclassified network (OpenNet) for testing under the United States Government Configuration Baseline (USGCB) configuration. Windows 7, in conjunction with USCGB configuration, takes advantage of

Windows 7 power saving features. In combination with the Enterprise Power Management Project, Windows 7 should significantly reduce desktop power consumption enterprise-wide.

In FY 2010, the Department completed the replacement of its existing classified PC inventory with thin client workstations. IRM planned to deploy 2,212 thin clients for the Department's classified network. The total actually deployed in FY 2010 was 2,364, thus exceeding the target by 152 or seven percent. From this point forward, the Department's classified thin client deployments will be part of GITM's refresh program in which each overseas post (excluding the Internet Message Access Protocol posts) will receive a complete hardware replacement every four years. The thin client/fat client ratio differs between domestic and overseas posts: domestic – 95% thin client/5% fat client; overseas – 90% thin client/10% fat client. As in previous years, the equipment to be deployed under the workstation refresh program will meet the EPEAT gold standard and thus be energy efficient. As this standard becomes even more rigorous in the future, the replacement equipment will increase in efficiency and help the Department to continue to decrease its carbon footprint for classified operations.

In the spring of FY 2009, IRM selected U.S. Embassy Managua and the IRM Regional Information Management Center, Ft. Lauderdale, Florida as the first proof of concept sites for the overseas server virtualization pilots. The initial pilots consisted of a classified network installation in Ft. Lauderdale and an unclassified network installation in Managua. The chart below illustrates the actual energy savings achieved through virtualization at Embassy Managua. The energy savings were evident in just one month, with measurable savings of almost 30%. After the migration was completed, post staff reported saving \$777.20 per month in electricity costs.

IMC-ENERGY COST- OLD SERVERS		IMC-ENERGY COST- NEW SERVERS	
DATE	3/26/2008	DATE	4/26/2008
DAYS	31	DAYS	31
VOLTAGE	480	VOLTAGE	480
MAX AMP A	6.00	MAX AMP A	2.70
MAX AMP B	26.00	MAX AMP B	20.40
MAX AMP C	12.00	MAX AMP C	8.50
IAVG	14.67	IAVG	10.53
KW	12	KW	9

MAX DEMAND (KW)	12	MAX DEMAND (KW)	9
KWH	9061.32	KWH	6507.68
COST X KW	407.04	COST X KW	407.04
COST X KWH	2.77	COST X KWH	2.77
COST KW	4957.42	COST KW	3560.33
COST KWH	25099.87	COST KWH	18026.27
TOTAL COST (local currency)	30,057.29	TOTAL COST (local currency)	21,586.60
TOTAL COST US\$	2,757.86	TOTAL COST US\$	1,980.64

In August 2010, based on the results achieved during the proof of concept pilots, IRM returned to both sites to perform full production virtualization pilots. The purpose of the production pilots was to build on the lessons learned from the proof of concept installations, verify the performance and stability of the production equipment and software, and verify the production modernization process. The full production pilots are remarkably stable and as a result, two additional pilots were scheduled for the U.S. Embassies in Nairobi and Geneva.

The Department completed the server virtualization pilot in Nairobi. The unclassified installation began on February 9, 2011, and was completed as scheduled on February 22, 2011. Final turnover to production is expected to occur soon. The unclassified installation in Geneva began on April 7, 2011, and was completed on April 20, 2011. The classified installation started April 21, 2011 and is expected to be completed as planned on May 4, 2011. When proof of concepts at all pilot locations are completed, IRM will begin server virtualization deployment in Quarter 4, FY 2011 and will be completed in four years

The environmental impact of virtual installations includes reduction in power consumption (direct for equipment, indirect by way of less cooling required), and less rack space. In addition there are savings in the hardware, particularly where the Department can virtualize some of the additional

physical servers that posts have been adding, with little change to the virtual infrastructure. The other major benefit from virtualization is improved remote monitoring and administration, which will reduce the excessive workload on local IT staff. On average, the Department expects to reduce the physical footprint at each location by more than 50%, with energy savings of up to 30% per location.

In addition to the initiatives described above, the Department expects a positive environmental/economic impact resulting from the deployment of State Messaging and Archive Retrieval Toolset (SMART.) SMART piloting began in May 2008 in three embassies. After piloting was completed at 15 embassies and the application was enhanced to reflect user feedback, full-scale deployment began in October 2009 and was completed at all of the 262 embassies and consulates in October 2010.

SMART overseas and Domestic Deployment is essentially complete. All of the domestic bureaus in the deployment plan have had SMART successfully deployed to their workstations on both the unclassified and classified networks. The two outstanding bureaus that need continuing support are the Bureau of Consular Affairs (CA) and the Executive Secretariat (S/ES) in the Office of the Secretary; both of whom adopted a SMART-assisted deployment approach. CA needs to rebuild their Citrix servers to accept the SMART client. S/ES is waiting on a few more pieces of functionality before fully deploying SMART to the bureaus and offices for which they provide IT support. Both organizations are working closely with the SMART development team to address their technical issues in order to complete their installations.

When SMART is fully deployed, numerous legacy systems in Washington and abroad will be shut down. Each of the Department's 262 embassies and consulates will have a savings in power consumption as SMART operates abroad on existing Exchange servers, whereas other communication equipment (e.g., TERP) will be deactivated. Likewise in Washington, legacy equipment (e.g., TERP, CableXpress, AMADS) will be shut down when SMART is fully operational, currently scheduled for September 30, 2011. Furthermore, SMART is moving to virtualization of existing SMART servers, initially at its second site and eventually at the primary site as well. Power usage should be reduced by as much as 80 percent with virtualization in addition to the savings resulting from termination of legacy equipment.

In January 2011, IRM started pilot testing of the Global OpenNet (GO) remote access system to replace its legacy OpenNet Everywhere (ONE) system; specifically the GO Desktop technology, which entailed allowing pilot users to access the new GO website. As of March 31, 2011, GO was given the Authority to Operate (ATO), and was officially off-pilot, and in production status. In May 2011, IRM starts the transition process of notifying all users individually who are still using ONE, to start using GO. This transition calls for all 21,000 Department ONE users (14,000 Domestic, 7,000 Overseas) to be using the GO desktop exclusively by September 2011 and eventually expanding remote access/teleworking opportunities to more Department users.

- c. Update agency policy to reflect environmentally sound practices for disposition of all agency excess or surplus electronic products.

The Department's policy for reporting and disposing of excess property, including electronic products, is contained in the chapter of the Foreign Affairs Manual entitled, Domestic Personal Property Management (14 FAM 420). The sub-section governing disposal of excess personal property is contained in 14 FAM 427. This sub-section also covers disposal of excess electronic products. However, for security reasons, Department policy states that any electronic product that contains a magnetic storage device with government information must have the hard drive removed and destroyed before disposal.

As for BlackBerry mobile devices, the Bureau of Diplomatic Security (DS) recently released guidance in February, 2011 granting the approval to use the BlackBerry "wipe" function to sanitize the non-removable on-board flash memory on domestic devices to return to the vendor for repair. However, Department policy prohibits this feature for overseas use and instead requires that the flash memory be disintegrated before release from U.S. Government control. For information security reasons, current policy dictates that any BlackBerry device to be disposed must be destroyed.

- d. Discuss how the agency will increase the quantity of electronic assets disposed through sound disposition practices. Include in the discussion how your agency is using or plans to use programs such as disposal through GSA Xcess, recycling through Unicor, donation through GSA's Computer for Learning (CFL) or other non-profit organizations, and/or recycling through a private recycler certified under the Responsible Recyclers (R2) guidance or equivalent certification.

Under the Department's policy, all domestic excess electronic assets are transferred to the Bureau of Administration for disposal as appropriate under GSA's Xcess and Computer for Learning programs. The Department entered into a Memorandum of Agreement with the US Department of Agriculture's Centralized Excess Property Operation (CEPO) to handle Department excess property in the Washington DC area. All Offices/Bureaus of the Department are required to use USDA-CEPO for the receipt, handling, reporting and disposal of excess personal property in the Washington Metropolitan Area, including electronic assets.

USDA-CEPO picks up and stores Domestic Department excess computer equipment located in the Washington DC metropolitan area and reports descriptive information and pictures of the property to www.gsaxcess.gov. During the first seven days of screening excess computer equipment, USDA makes it available for the schools that are registered in the www.computersforlearning.gov website. USDA-CEPO approves the transfer of this equipment to schools on an SF1-22, using the www.gsaxcess.gov.

Domestic excess computer equipment located outside the Washington DC metropolitan area is held by the Bureau/Offices field locations while descriptive information about the property is reported along with pictures to www.gsaxcess.gov. Excess computer equipment during the first seven calendar days of screening is made available for schools registered in the www.computersforlearning.gov website. Authorized Department Principal Custodial Officers/Area Custodial Officers allocate and approve the transfer of this equipment on an SF-122 to schools using the features in www.gsaxcess.gov.

- e. Discuss how the agency will require IT planning/Life Cycle Manager to replace and or waive equipment that does not meet "Green" compliance requirements.

The Department's Global IT Modernization (GITM) office located in the Bureau of Information Resource Management is continually identifying and evaluating new technologies, and has aggressively pursued the most power-efficient equipment that meets the technical requirements of the Department. For example, the GITM requirements for new equipment include meeting the latest Energy Star and EPEAT certifications. Additionally, since all overseas equipment is replaced on a four-year life cycle, antiquated, non-green core IT equipment (servers, switches, workstations and monitors) is phased-out on a routine basis. In the case of unclassified

workstations and printers, 25 percent are replaced each year with the latest models. In addition, GITM has prepared a printer policy for the Department (summarized in section b above), which addresses the replacement of outdated printers, paper use, and the recommended configurations.

- f. Update agency policy to ensure implementation of best management practices for energy efficient management of servers and Federal Data centers, including how the agency will meet data center reduction goals included in the Federal Data Center Consolidation Initiative.

Diplomatic Security's Office of Foreign Missions (DS/OFM) has taken many steps to reduce its data management center's carbon footprint. DS/OFM is in the process of migrating and virtualization of all server-based data and applications to the Enterprise Server Operations Centers (ESOC) East. The migration and server virtualization will be complete by mid-May 2011 for the Washington offices and the DS/OFM regional offices will be completed by the end of September 2011.

To ensure best practices for the energy efficient management of servers and desktops, the Department has several initiatives underway, including data center consolidation. ESOC East now supports over 1,900 servers including 878 servers transitioned to ESOC East in 2010. The Virtual Infrastructure has been expanded to support over 1,000 virtual servers accounting for more than 54% of the total servers in the data center.

ESOC West continues to make progress toward completion of construction. The basement and first floor concrete has been poured and the second floor and loading dock concrete work has begun. Two cranes continue to install the precast concrete walls. The project is on track to open for business as a LEED Gold certified data center in June of 2012.

Two Data Centers have been decommissioned to date: the Combined Bureau Processing Center (CBPC) and in StateAnnex-44. The Department plans to decommission four additional Data Centers by June 2012: the center in the Harry S Truman Building and the centers in State Annexes-1, 3, and 6.

The Department has exceeded its FY 2011 target for Data Center server virtualization. The Department's server virtualization target was 25% and the actual server virtualization was 30%. The target for FY 2012 is 40%.

CENTERS	†	11	12	13	4	5	
% of electronic product acquisition covered by current Energy Star specifications that must be energy-star qualified ^{viii}	%	100%	100%	hold	hold	hold	hold
% of covered electronic product acquisitions that are EPEAT- registered	%	100%	100%	hold	hold	hold	hold
% of covered electronic product acquisitions that are FEMP-designated	%	100%	100%	hold	hold	hold	hold
% of agency, eligible PC, Laptops, and Monitors with power management actively implemented and in use	%	N/A	100%	hold	hold	hold	hold
% of agency, eligible electronic printing products with duplexing features in use ^{ix}	%	N/A	60%	75%	95%	hold	hold
% of electronic assets covered by sound disposition practices ^x	%	100%	100%	hold	hold	hold	hold
% of agency data centers independently metered, advanced metered, or sub-metered to determine monthly (or more frequently) Power Utilization Effectiveness (PUE).	%	100%	100%	hold	hold	hold	hold
Reduction in the number of agency data centers	#	13	10	9	8	7	6
% of agency data centers operating with an average CPU utilization greater than 65% ^{xi}	%		30%	40%	40%	50%	hold
Maximum annual weighted average Power Utilization Effectiveness (PUE) for agency.	#		1.9	1.9	1.9	1.6	1.4

GOAL 8: AGENCY INNOVATION AND GOVERNMENT-WIDE SUPPORT

- a. **Goal description:** The Department continues to explore new and innovative environmentally sustainable solutions to enhance its business processes.
- b. **Agency lead:** The Greening Council (GC) leads the Department's effort to harness the vast resources and crosscutting interests within the Department to focus on its greening efforts.
- c. **Implementation:** The Department's Greening Council meets quarterly to discuss options for implementation or direct the GCWG to research or execute a green solution. The GC Ideas Team uses a portal on the Department's internal homepage to communicate with Department employees and solicit ideas and innovative approaches to apply to Department business processes. These solutions move to the GC for consideration, and if approved, are tasked out to the various divisions within the Department for implementation. The GC periodically asks for updates and metrics of programs to review progress and provide additional guidance if needed.
- d. **Positions:** The GC Executive Secretariat prepares for and executes Greening Council and Greening Council Working Group meetings, oversees the drafting of required reports and documents, and finalizes strategic outlook documents and implementations plans on behalf of the Greening Council. The Office of Management Policy, Rightsizing, and Innovation (M/PRI) serves as the Executive Secretariat and has 1.5 FTE positions assigned to sustainability issues. The Secretary's Sounding Board, which serves as the interface for green ideas from employees, has one FTE dedicated to managing its day to day operations.

e. Planning table:

GOAL 10 - AGENCY INNOVATION & Government-Wide Support	Units	FY 10	FY 11	FY 13	...	FY 20
Other, as defined by agency	Events	1	6	hold	hold	hold

- f. **Agency Status & Highlights:** In 2010, the major green innovation the Department implemented was the Greening Council. Headed by the Under Secretary for Management, who is also the Department's Senior Sustainability Officer (SSO), the Council's composition of the Department's leadership and its cadre of volunteers to carry out tasks and programs highlight the enthusiasm and dedication to greening within the Department. In 2011, the Greening Council delivered a variety of innovative actions. Tapping into ideas from all levels the Department is proud of the accomplishments implemented thus far. Below are some examples:

- **Green IT Initiative – The American Council for Technology (ACT) - Industry Advisory Council (IAC) - 2011 Award Excellence.Gov Award Winners, Excellence in Going Green** – The U.S. Department of State Bureau of Consular Affairs has reduced the number of its servers from 185 to 17, and replaced their legacy interface/data controllers at 216 worldwide embassies and posts with a concise, centralized solution that has improved performance of four visa/passport IT systems and dramatically reduced hardware, deployment and maintenance costs, and energy requirements.
- **Bikes** – In addition to providing more bike friendly facilities, which includes showers for its bikers, the Department has installed loaner bikes at its DC headquarters for its workforce to use during their daily meetings throughout the District. The Department now has 200 participants enrolled in the loaner bike program. Also, In March 2011, the Department was awarded the Bronze designation for the Bicycle Friendly Business program administered by the League of American Bicyclists in recognition of the efforts the Department has made to support employee bicycle commuting.
- **Greening Diplomacy Initiative (GDI) Awards** – In an effort to acknowledge the greening activities of Department personnel, the Department initiated a Department-wide annual award, which includes acknowledgment from senior leadership, to promote more "acts of green."
- **Acts of Green** – The Department developed an internal site to collect Acts of Green for the Earth Day Network's Billion Acts of Green campaign and submitted to the network over 1300 pledged acts of green.
- **Renewable Energy** – The Department established a new agreement to secure a significantly larger amount of clean energy for the next 20 years. This contract moved forward and found support early on through the promotion and encouragement of the Greening Council.
- **Events and Outreach** – Over the past year, the Department hosted an array of events to reach out and educate its workforce and the public on environmental issues, including America Recycles Day exhibits, a Women and the Green Economy Speaker Panel, a 6K Walk for Water, and Earth Day posters and exhibits.
- **DC Greening Embassy Forum** – Coordinated by the Department of State in conjunction with the Earth Day network and the foreign missions in the District, the Forum initiated a series of meetings in 2010 that focused on best practices for greening facilities and launched energy benchmark training for the facility managers of the DC foreign missions.

SECTION 3: AGENCY SELF EVALUATION

I. TABLE:

Does your plan provide/consider overarching strategies and approaches for achieving long-term sustainability goals?	Yes
Does your plan identify milestones and resources needed for implementation?	Yes
Does your plan align with your agency's 2011 budget submission?	Yes
Is your plan consistent with your agency's FY 2011 budget and appropriately aligned to reflect your agency's planned FY 2012 budget submission?	Yes
Does your plan integrate existing EO and statutory requirements into a single framework and align with other existing mission and management related goals to make the best use of available resources?	Yes
Does your plan provide methods for obtaining data needed to measure progress, evaluate results, and improve performance?	Yes

ⁱ If employees use fleet vehicles for employee business travel, this counts towards Scope 1&2 GHG emissions, as the fuel used in these vehicles is included in the annual report of fuel used in fleet vehicles.

ⁱⁱ Acquire AFVs annually, as required.

ⁱⁱⁱ GHG emissions are measured in mtCO₂e and the percentage reductions are reductions in mtCO₂e.

^{iv} Refer to the OFEE Scope 3 GHG Emissions Reduction Target Tool and User's Manual for detailed descriptions of each scope 3 categories and calculation methods. When writing narrative for this goal area, please note that it is not necessary to provide a great deal of detail. Agencies should focus on general strategy for reducing Scope 3 emissions and should plan to provide greater detail on milestones and actions taken to reduce emissions associated with agency-specific targets in subsequent updates to this plan.

^[i] Applies to buildings at least 5,000 sf. Do not calculate the incremental cost associated with selecting a different leased facility. The costs should reflect actual quantifiable costs such as 3rd party certification programs, facility upgrades, or similar. If there are no quantifiable costs, enter \$0 for costs. Use the text write up to describe the methodology for working towards the goal.

^v EPEAT products are addressed in Goal 7: Electronic Stewardship and Data Centers.

^{vi} Purchases are mandated where such products and services meet agency performance requirements. These mandates do not apply to the acquisition of weapons systems. Agencies should discuss how they currently capture and analyze data to track their performance regarding the 95% target for new contracted actions. Where agencies are unable to track specific actions, they should discuss plans to improve data collection and identify areas where specific challenges exist.

^{vii} Some agencies may use the term 'green purchasing plan', 'affirmative procurement plan', and/or 'EPP'.

^{viii} Device types are the electronic products listed under the Energy Star program that the Agency purchases or leases. This count should include the percentage of products that met energy star standards at the time of purchasing during the reporting period (FY10). Please note it includes products with stand-by power. For the purposes of this metric, Energy Star products are not electronics such as lighting and appliances that are covered by the Sustainable Acquisition Goal. You can go to <http://www.energystar.gov/> under "Computers and Electronics" section for the list of targeted products. The goals/targets within Goal 7 are more narrowly scoped to include servers, computers, monitors, peripherals, and other office equipment.

^{ix} Eligible electronic products include, but are not limited to, imaging equipment such copiers, faxes, printers, scanners, etc.

^x Electronic assets are generally those electronics products owned and/or leased by the Agency that need to be disposed of in accordance with acceptable end-of-life practices. Some examples of sound disposition practices include, but are not limited to, GSA Xcess, including transfer to eligible federal entities and donation to eligible states and nonprofits (Note: The use of GSA Auctions, public sales, and abandonment and destruction provided by GSA is outside of the scope of GSA Xcess and does not ensure sound disposition.); recycling through Unicorn; donation through GSA's Computer for Learning (CFL) or other non-profit organizations; and/or recycling through a private recycler certified under the Responsible Recyclers (R2) guidance or equivalent certification. Agencies are encouraged to describe in the narrative write-up approximately which percentage is attributed to each disposal method. At this point, the percentage is set by the agency. Agencies should set a target as close to 100% as is reasonably achievable.

^{xi} In data centers with large variations in load this metric should be applied only to servers that are powered up. Servers that are powered down should not be counted.