DEPARTMENT OF HOMELAND SECURITY

STRATEGIC SUSTAINABILITY

PERFORMANCE PLAN

June 2011

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Executive Summary

In Executive Order (EO) 13514, *Federal Leadership in Environmental, Energy, and Economic Performance,* President Obama made sustainability the policy of the United States Government. Sustainability means to create and maintain conditions under which humans and nature can exist in a productive harmony that permits fulfilling the social, economic and security requirements of the present and future generations. At DHS, the sustainable approach balances cost, schedule, operations, maintenance, safety and employee morale while creating and maintaining conditions that fulfill the economic, environmental and security needs of the American people. To comply with the EO the Department must adhere to sustainable principles and implement sustainable practices throughout the Department of Homeland Security (DHS). The Secretary issued a Sustainability Policy Letter in February 2011 designed to transform DHS into the nation's leader in sustainable law enforcement operations. Ongoing Efficiency Review initiatives improve efficiency and streamlines decision-making through a series of projects ranging from eliminating non-mission critical travel to right-sizing vehicle fleets. Full implementation of the efficiency initiatives could save DHS hundreds of millions of dollars. The DHS Strategic Sustainability Performance Plan (Sustainability Plan) is aligned with the Department's Efficiency Review Initiative along with climate change adaptation efforts to improve current and future business practices to save resources.

Sustainability and the DHS Mission

DHS is responsible for preventing terrorism and enhancing security; securing and managing the borders; enforcing and administering immigration laws; safeguarding and securing cyberspace; and ensuring resilience to disasters. Based on these mission areas, the Department is well positioned to develop a new business model for sustainable practices in law enforcement operations and integrate sustainability into its everyday business practices.

Informing Sustainability at DHS

The Sustainability and Efficiency Task Force of the Homeland Security Advisory Committee provided a report on the current state of sustainability in the Department as well as future courses of action required for DHS to become a nationwide leader in sustainability. The Task Force's recommendations are integrated into the Sustainability Plan. The Sustainability Plan establishes clearly defined goals and metrics to measure progress. Each Component and functional area is participating in a significant and viable manner to fully integrate sustainable principles into business processes and projects.

Strategic Sustainability Performance Plan

The Sustainability Plan reflects the department's strategic vision for doing business in a more efficient way. As the next step following the creation of the Sustainability Plan, a series of tactical implementation plans were developed by each DHS Component. These plans are called Operational Sustainability Performance Plans (OSPP). The first round of OSPPs has been completed and into this revision of the DHS Sustainability Plan. These Component level plans follow a template developed by DHS headquarters

that clearly established how Components will implement their sustainability programs to fully support the department's efforts to meet the goals of EO 13514.

Section 1: Department Policy and Strategy

I. Department Sustainability Policy Statement

The following Sustainability Policy Letter was issued on February 7, 2011 to establish and promote sustainable practices and create a culture for achieving sustainability goals.

Secretary
U.S. Department of Homeland Security
Washington, DC 20528

Homeland Security

February 7, 2011

MEMORANDUM FOR: Component Heads

FROM: Secretary Napolitano

SUBJECT: Department Sustainability Policy

On October 8, 2009, President Obama signed Executive Order (EO) 13514 which set sustainability goals for federal agencies and requires departments to shift toward more sustainable practices. Sustainable practices increase efficiency, reduce environmental impacts, and conserve resources. At the Department, we are working to implement the EO by increasing energy efficiency; reducing greenhouse gas emissions; conserving and protecting water sources; eliminating waste; recycling; and preventing pollution.

As the largest federal law enforcement agency, we are particularly well positioned to serve as a national leader in implementing sustainable practices in law enforcement operations. To do this, we must integrate sustainability into everyday business practices across the Department and leverage our workforce to create an efficient, resilient and sustainable agency.

The Department has developed an integrated Strategic Sustainability Performance Plan that sets aggressive goals for sustainability as well as three primary strategies to achieve sustainability goals:

- **Strategic Business Transformation** -The Department will take iterative steps to transform its business methodology to ensure sustainable practices are incorporated at the outset and prioritized in the decision-making process. This means including environmental impact in accounting for full life-cycle costs and return on investment.
- **Human Capital Investment** - The Department will actively work to raise employee awareness of sustainable practices through training and outreach programs.
- **Leadership in Sustainable Law Enforcement** - The Department will leverage best practices and seek out new innovations to make its law enforcement and emergency response operations more sustainable without compromising mission capabilities.

These Department-wide goals and strategies rely upon the combined efforts of all Components, through their Operational Sustainability Performance Plans. It is critical that each Component ensures sustainable practices become part of the DHS culture.

I appointed Deputy Under Secretary for Management Chris Cummiskey as DHS's Senior Sustainability Officer. I have asked him to convene regular meetings of senior accountable officers to reach Component to monitor the transformation of business processes. Please inform the Management Directorate of your choice for the senior accountable officer for Sustainability by February 28, 2011. Inquiries on the Department's sustainability program can be directed to Mr. Cummiskey at (202) 447-3400.

www.dhs.gov

A. Sustainability Plan Policy Statement

DHS is committed to becoming a leader in sustainability to ensure its operations and actions are carried out in an environmentally, economically, and fiscally sound manner. Incorporating sustainable practices into our mission conserves energy and natural resources, reduces pollution and contamination releases, enhances the workplace through less exposure to hazardous materials and chemicals, and strengthens our national defense by encouraging energy independence. Employees at all levels must be responsible and accountable for integrating environmental stewardship into their day-to-day activities to reduce the environmental impact of their activities and to protect natural resources. These precepts are integral aspects of all Departmental activities. Incorporating sustainability into day-to-day business processes and decision-making is an important step in enhancing mission performance and demonstrating our commitment to compliance with environmental and energy statues, regulations and Executive Orders and protecting the nation's natural resources.

To this end, sustainability has emerged as a central, organizing concept for DHS. This common thread ties together a diverse number of mission-related operations, projects, stakeholders, and issues. Added to this, is the need for responsible expenditure of taxpayer dollars and the need to deliberately evaluate sustainable alternatives for everything we do. Sustainability therefore represents a value system embraced by DHS leadership, which guides mission operations and supporting projects as well as the business processes for contracting, acquisition, financial planning, information technology, and project/program execution.

At DHS, the sustainable approach balances cost, schedule, operations, maintenance, safety, and employee morale while creating and maintaining conditions that fulfill the economic, environmental, and security needs of the American people.

To ensure the Department’s sustainability efforts are well coordinated across the functional lines of business in the Department, the Secretary has tasked the Management Directorate with developing the sustainability program. Secretary Napolitano appointed me to serve as the Senior Sustainability Official (SSO) for the Department.

Executive Order 13514, *Federal Leadership in Environmental, Energy, and Economic Performance,* offers the opportunity to develop successful initiatives to strengthen the Department’s sustainability and efficiency goals, while helping to further secure the nation. The EO requires the Department to develop and maintain the Sustainability Plan to guide its implementation efforts toward these goals.

To lead this work the Department established a cross-functional Sustainability Council. Council membership includes the Departmental Senior Sustainability Officer, Chief Administrative Officer, Chief Financial Officer, Chief Human Capital Officer, Chief Information Officer, Chief Procurement Officer, Chief Security Officer and each Component’s Member of the Management Council. The Sustainability Plan assigns the lead for implementation of specific EO goals to the appropriate CXO. A Sustainability Working Group was established to perform work on the behalf of the Sustainability

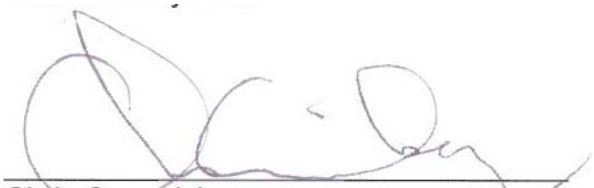
Council. The Sustainability Council is composed of representatives from each of the CXO offices and the operational Components.

Additionally, each operational Component has developed an Operational Sustainability Performance Plan (OSPP) that sets forth its plan for integrating sustainability into its mission and demonstrates how it will support the Department's Sustainability Plan. Each of the Components has designated a Senior Accountable Officer (SAO) for Sustainability and has formed a Council, Committee, or Working Group to guide its efforts. Information from the Component OSPPs was used to develop this year's DHS Sustainability Plan.

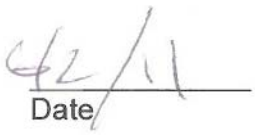
We will plan and budget for the success of these efforts. We will develop systems to assist in measuring and reporting our progress. We will initiate course corrections when we are not meeting our goals. In supporting these goals, the Department will comply with all environment and energy laws, regulations, and executive orders.

To ensure the success of our efforts awareness training will be presented to every employee, and they will be encouraged to contribute to the success of the Sustainability Plan. We will inform the public about our efforts, and provide for their involvement. The Department has created an Awards Program that will provide recognition for individual employees and groups making significant contributions to Departmental and Component sustainability progress.

The signature below indicates approval and commitment for the goals of the Sustainability Plan:



Chris Cummiskey
Deputy Under Secretary for Management
Senior Sustainability Officer



Date

II. Sustainability and the Department Mission

DHS is responsible for preventing terrorism and enhancing security; securing and managing the borders; enforcing and administering immigration laws; safeguarding and securing cyberspace; and ensuring resilience to disasters. Sustainability defines a consistent and coherent set of values and goals for all projects and processes and stimulates innovation and excellence. Sustainability serves as a unifying concept for accomplishing the DHS mission.

Early planning and adaptation to potential climate change will lessen its impact on DHS facilities and operations and increase the success of the Department's mission and response operations. Uncertain and unsustainable supplies of energy, water, and other resources, and the unpredictability of natural disasters and terrorism have a major impact on the nation's security. DHS is in a unique position to set the paradigm for a sustainable, secure, and resilient future by demonstrating how efficiency and sustainability will enhance America's national security. Successful EO implementation will enable the Department to emerge as a pragmatic, flexible, and strategic leader in efficiency among the executive agencies, and a model to state, local, private sector, and citizen sustainability efforts and increase the nation's security.

The implementation of distributed energy projects at DHS facilities will increase their operational security by making them less dependent on grid supplied power. This is especially important for DHS operations and data centers that must maintain 24-7 operations. Use of domestically produced biofuels and energy products can also decrease dependency upon imported oil and could help to stabilize energy costs.

The following table provides a summary that describes DHS's FY 2010 footprint.

Table 1: DHS Operations Footprint

Total # Employees	237,629
Total Acres Land Managed	97,961
Total # Facilities Owned	11,553
Total # Facilities Leased (General Services Administration (GSA) lease)	1,984
Total # Facilities Leased (Non-GSA)	653
Total Facility Gross Square Feet (GSF)	43,097,808.26
Operates in # of Locations throughout U.S.	1,591
Operates in # of Locations outside of U.S.	18
Total # Fleet Vehicles Owned	47,428
Total # Fleet Vehicles Leased	7,544
Total # Exempted-Fleet Vehicles (Tactical, Emergency, Etc.)	41,804
Total Operating Budget FY 2010 ($MIL)	$55100
Total # Contracts Awarded FY 2010	45,000
Total Amount Contracts Awarded FY 2010 ($MIL)	13,564
Total Amount Spent on Energy Consumption FY 2010 ($MIL) (Utilities only, not vehicles)	123.83
Total MBTU Consumed per GSF	99.835
Total Gallons of Water Consumed per GSF	30.3
Total Scope 1&2 GHG Emissions (Comprehensive) FY 2008 Baseline	1,717,333.5

MMTCO2e	
Total Scope 1&2 GHG Emissions (Subject to Agency Scope 1&2 Reduction Target) FY 2008 Baseline MMTCO2e	663,241.4
Total Scope 3 GHG Emissions (Comprehensive) FY 2008 Baseline MMTCO2e	1,602,912.6
Total Scope 3 GHG Emissions (Subject to Agency Scope 3 Reduction Target) FY 2008 Baseline MMTCO2e	1,600,161.1

III. Greenhouse Gas Reduction Goals (GHG)

The Department is committed to creating a clean energy economy that will increase American prosperity. Reducing GHG emissions supports the Department mission through promotion of energy security, protecting the interest of taxpayers and safeguarding the public health and the health of the environment.

A. Scope 1 and 2 Targets

Scope 1 GHG emissions are direct emissions from the operation of sources that are owned or controlled by DHS to include those emissions from:

- Stationary fuel combustion equipment such as boilers, furnaces, and emergency generators;
- Mobile sources such as vehicles, aircraft, and marine vessels; and
- Fugitive and process carbon emissions associated with current land use management practices and activities (e.g., forest management practices) and from the operation of refrigeration and air conditioning systems, electrical switchgear, and other equipment/systems.

Scope 2 GHG emissions are indirect emissions that occur as a result of DHS operations, but are produced by sources owned or controlled by another entity. Scope 2 includes emissions from the consumption of purchased electricity and steam generated by other entities.

In accordance with the requirements in EO 13514, DHS submitted its Scope 1 and 2 GHG emissions reduction target to the Council on Environmental Quality (CEQ) and the Office of Management and Budget (OMB) on January 1, 2010. The Department's goal is to reduce its combined Scope 1 and 2 GHG emissions by 25 percent by FY 2020 (relative to its FY 2008 baseline).

Following is a list of Component FY 2020 GHG Scope 1 and 2 emission reduction goals established by the SSO relative to a FY 2008 baseline. The Component goals will be used to assist in tracking progress towards achieving the Department's 25 percent reduction goal.

Table 2: Component GHG Reduction Goals

• DHS Component	• Scope 1 & 2 GHG • Reduction Goal
Customs and Border Protection (CBP)	• 28%
Federal Law Enforcement Training Center (FLETC)	• 28%
Federal Emergency Management Agency (FEMA)	• 20%
Immigration and Customs Enforcement (ICE)	• 34%
National Protection and Programs Directorate (NPPD)	• 12.9%
Science and Technology Directorate (S&T)	• 15%
Transportation Security Administration (TSA)	• 2.6%
US Coast Guard (USCG)	• 25%
US Citizenship and Immigration Services (USCIS)	• 11%
US Secret Service (USSS)	• 20%
DHS Overall Reduction Goal	• 25%

B. Scope 3 Targets

Scope 3 GHG emissions account for all other indirect emissions not included in Scope 2. These emissions are a consequence of the activities of DHS and come from sources not directly controlled by DHS. Scope 3 emissions represent an important opportunity for DHS to influence the behavior of its employees and suppliers toward behaviors that reduce GHG emissions and protect the climate.

In deciding which Scope 3 emissions to include in the reduction target at this time, CEQ and OMB considered the availability of data, the existence of methodologies to accurately calculate emissions quantities, and the ability of agencies to measure changes in emissions as a result of their actions. OMB determined the following categories will be included in the initial scope 3 GHG emission reduction targets:

- Category 1 - Transmission and distribution (T&D) losses from purchased energy to include;
- Purchased electricity T&D losses;
- Purchased steam T&D losses; and
- Category 2 - Federal employee travel to include;

- Business air travel;
- Business ground travel; and
- Federal employee commuting

- Category 3 - Contracted waste disposal to include:
- Contracted solid waste disposal; and
- Contracted wastewater treatment

DHS reviewed its' initial scope 3 reduction goals and discovered errors in the units of measures used to calculate the goals. Employee commute calculations were also revised. As a result of this review, DHS increased its GHG scope 3 reduction goals from 4.5% to 7.2%. Table 3 shows the changes in the goals from the old to the new more challenging goal.

Table 3: Scope 3 GHG Reduction Goals

Goal Description	Old Goal	New Goal
Purchased electricity transmission and distribution losses	13.2%	13.2%
Contracted waste disposal	9.7%	10.7%
Federal employee travel	2.8%	6.6%
DHS Overall Reduction Goal	**4.5%**	**7.2%**

C. Baseline Efforts

DHS prepared a GHG inventory in response to a specific request in H.R. 2638, Public Law 110-329, The Consolidated Security, Disaster Assistance, and Continuing Appropriations Act of 2009. This inventory provided an assessment of GHG emissions associated with DHS and Component activities, including a top-down emission estimate of the six internationally-recognized GHGs, including carbon dioxide (CO_2), methane, nitrous oxide, sulfur hexafluoride, hydrofluorocarbons, and perfluorocarbons. It also contained an analysis of mitigation measures, including sequestration potential. The GHG inventory served as a first step in preparing an inventory that complies with the inventory requirements in EO 13514.

This was the first attempt, prior to the issuance of the EO, by DHS to quantify GHG emissions from all DHS and Component operations. The GHG inventory was limited by the Department's data collection capabilities. Since direct measurements of GHG emissions are not part of DHS monitoring activities, the information was collected from the Components through a data call, the FY08 annual energy report, and from a real property database, and GHG emission measurements were obtained through indirect calculations.

The Department updated this inventory to fully meet EO 13514 requirements for GHG emissions quantification and management and established a formal baseline (FY 2008) for determining progress towards the established reduction targets. The FY 2008 base

year report was prepared according to Federal Greenhouse Gas Accounting and Reporting Guidance and submitted to the CEQ Chair and OMB Director on January 31, 2011.

D. Overall Strategy to Meet Targets

DHS has received more than $2.2 billion in American Recovery and Reinvestment Act (ARRA) funding since its enactment. The great majority of funding received was used for the following types of projects; upgrading structural components, erecting security fencing, installing detectors, and purchasing communication equipment for DHS facilities. FEMA provided grants to local fire stations, port authorities and direct assistance for emergency shelter/supplies. In addition, ARRA funds were used to develop the Environmental Impact Statements (EIS) for the DHS Headquarters (HQ) St. Elizabeth Project. The EISs describe the use of green roofs, reuse of rain water, maximizing the use of mass transit, installing energy efficient lighting and decreasing the amount of impervious surfaces at the site. The General Services Administration (GSA) is the prime federal agency leading the development of this project.

In order to achieve established GHG targets, DHS developed a high level approach that includes short-, medium- and long-term activities/initiatives. These activities and initiatives build on existing efforts to reduce energy use, reduce the energy intensity of its operations, increase the utilization of alternative fuels, and purchase renewable energy. In addition, Heads of Components have identified and prioritized actions to achieve these goals and annually evaluate performance; these initiatives are located throughout this Sustainability Plan.

Short Term (FY2010-FY2012)

- CAO (Environmental Management) will establish a Scope 3 GHG reduction goal.

  Status: (Completed) Using the OMB and CEQ Scope 3 reduction tool, DHS calculated a Scope 3 reduction goal of 4.6%. Scope 3 GHG emissions cover employee commuting, employee travel, contracted solid waste, contracted wastewater disposal and T&D loses associated with purchased electricity. A specific goal for reducing employee commuting could not be calculated due to a lack of data and negatively impacted the calculation for the overall Scope 3 goal. Based on the results of the recent employee commuter survey conducted in January 2011, staff determined that if each Component adopts a FY 2020 employee commute GHG reduction goal of 10%, the Department's overall Scope 3 goal could increase to 7.2%. The SSO approved this scenario and a letter was sent to OMB/CEQ updating the DHS Scope 3 reduction goal to 7.2%.

- CAO (Environmental Management) with support from CXOs and Components will finalize the baseline GHG inventory.

  Status: (Completed) Environmental baseline inventory was finalized January 31, 2011 in accordance with EO 13514 and CEQ and OMB requirements.

- CAO (Environmental Management) will update the Sustainable Practices Directive to reflect the new requirements in EO 13514.

  Status: (Ongoing) The Directive has been updated and is currently being reviewed by the CAO. Once approved by the CAO, the Directive will be forwarded for formal review and coordination across the Department.

- CAO (Fleet Management) will issue guidance on the Energy Independence and Security Act (EISA) section 141 requirements to improve awareness of the requirement to acquire low GHG emitting vehicles.

  Status: (Ongoing)

- CAO (Fleet Management) will establish a Department-wide committee to develop guidelines and requirements for defining and right sizing vehicle fleets.

  Status: (Completed) The Committee was established, guidelines developed and requirements for defining and right sizing the vehicle fleets were created.

- CAO will identify the resources necessary for acquiring the data to measure:
- T&D losses related to purchased electricity, steam, and heating/cooling;
- Business air travel; and
- Contracted solid waste.

  Status: (Completed) Resource needs have been identified; implementation funding not yet available.

- CHCO will develop and deploy an employee training program and employee commuting survey to calculate the FY2010 baseline inventory, reduction goal and annual progress.

  Status: (Completed) Survey deployed by GSA January 10-18, 2011.

- CSO will use more energy efficient security systems, equipment, lighting and infrastructure.

  Status: (Completed) The practice of using energy efficient systems has been incorporated into CSO business practices.

- CSO will increase the use of automation and paperless processes in security administration functions that are currently done manually thus reducing energy and resource requirements and waste.

  Status: (Ongoing)

- CAO (Environmental Management) will coordinate any new OMB mandated scope 3 GHG reduction initiatives.

Status: (Completed) Incorporated into CAO business practices. CAO participates in OMB sponsored workshop and work group meetings for GHG reduction guidance and incorporating GHG reduction requirements into contracts.

Medium Term (FY2013-FY2017)

- CAO (Fleet Management) will begin an awareness campaign and review of the entire fleet to ensure optimal use of vehicles and right sizing the fleet.
- CAO (Fleet Management) will establish procedures to ensure all DHS vehicle orders will be reviewed by the Fleet Manager to ensure compliance with reduction efforts.
- CAO (Fleet Management) will establish policy and procedures to ensure all motor vehicles operators consolidate trips and improve routing to reduce miles traveled.
- The DHS Sustainability Council will identify and deploy solutions for automating, collecting, collating, tracking and reporting GHG emission reduction results.
- The DHS Sustainability Working Group will identify and prioritize opportunities and Department-level initiatives to reduce GHG emissions for Scopes 1, 2 and 3.

Long Term (FY2018-FY2021)

- The DHS Sustainability Council will use the results from GHG emission collecting, collating, tracking and reporting systems to identify and correct problem areas and target opportunities for success.
- CAO (Fleet Management) will continue the awareness campaign and review of the entire fleet to ensure optimal use of vehicles and right sizing the fleet. Emphasis will be placed on replacing the fleet with low GHG vehicles wherever practicable.

IV. Plan Implementation

A. Leadership & Accountability

Secretary Napolitano reviewed the Department's strategic goals as a means to articulate her priorities for homeland security. The Secretary's priorities considered the complementary safety, stewardship, and legislatively mandated responsibilities of various DHS Components. Those complementary activities currently include those designed to protect the environment. In 2009, to support sustainability, the Secretary established the Sustainability Efficiency Task Force (SETF) consisting of professionals outside of government. The SETF reviewed DHS policies and procedures and made recommendations to assist the Department in becoming a leader in sustainability. Recommendations from the February 2010 SETF report were incorporated into the 2010 Sustainability Plan and continue to be an important part of the 2011 DHS Sustainability Plan.

The Department leadership and accountability roles for the Sustainability Plan are defined as follows:

- The Deputy Under Secretary for Management (USM) is designated by the Secretary to serve as the SSO for the Department and will be accountable for DHS conformance with EO 13514. The following key functions, referred to as the CXOs, report to the USM and are responsible for implementing the Sustainability Plan:
    - Chief Administrative Officer (CAO) with responsibility for fleet, energy and environmental management;
    - Chief Financial Officer (CFO);
    - Chief Human Capital Officer (CHCO);
    - Chief Information Officer (CIO);
    - Chief Procurement Officer (CPO); and
    - Chief Security Officer (CSO).
- The Sustainability Council consists of the CXOs and Component Management Officials and guides EO 13514 implementation efforts;

- The Sustainability Work Group was established by the Sustainability Council to perform technical analysis and work for the Sustainability Council. Representatives from the CXOs, Components and other technical advisors as needed are assigned to this work group to address specific tasks from the Sustainability Council;

- The CAO provides coordination and management for the SSO over the Sustainability Plan and performs the following:

    - Maintains the Sustainability Plan and coordinates inputs from the Sustainability Council, Sustainability Work Group, CXOs and Components;

    - Reports progress on the Sustainability Plan to the SSO, Sustainability Council, Sustainability Work Group and others as required;

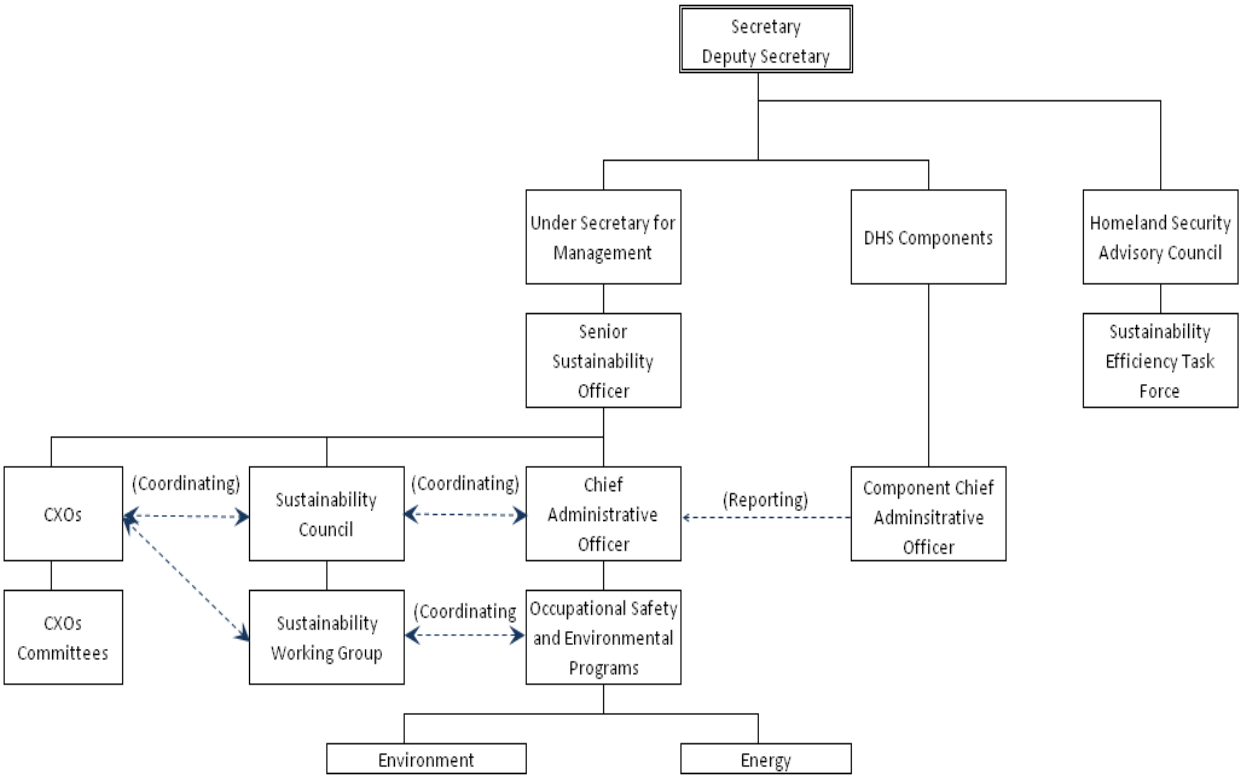
    - Monitors and reports on EO 13514 compliance; and

    - Prepares required reports and metrics for submittal to OMB and CEQ.

- CXOs are responsible for defining their role and specific CXO actions and initiatives for the Sustainability Plan and provide updates as required to the CAO; and

- Operational Components are responsible for maintaining an OSPP that implements the goals, targets and objectives of the Sustainability Plan. Components will provide updates and metrics to the CAO as requested.

The following flow chart graphically displays the leadership roles.



The organizational chart presents the DHS leadership and accountability roles for the DHS 2011 Sustainability Plan. The Secretary/Deputy Secretary has appointed a Senior Sustainability Officer from within the Under Secretary for Management. The CXOs report to the Senior Sustainability Officer and implement the DHS 2011 Sustainability Plan through the CXOs Committees. The CXOs also serve on the Sustainability Council, which coordinates with the Chief Administrative Officer and establishes the Sustainability Working Group that coordinates with the Occupational Safety and Environmental Programs. The Chief Administrative Officer reports to the Senior Sustainability Officer, coordinates with the Sustainability Council, receives reporting from the Component Chief Administrative Officer for each DHS Component, and manages the DHS 2011 Sustainability Plan through the Occupational Safety and Environmental Program's Environment and Energy initiatives. The Occupational Safety and Environmental Programs also coordinate with the Sustainability Working Group. The Component Chief Administrative Officer for each DHS Component reports to the Secretary/Deputy Secretary and provides reporting to the Chief Administrative Officer with regard to the DHS 2011 Sustainability Plan. The Homeland Security Advisory Council's Sustainability Efficiency Task Force provides the Secretary/Deputy Secretary with direct advice and recommendations related to sustainability planning.

B. Internal Coordination and Communication

Each CXO is responsible for driving the change to sustainability through their functional area and support integration of sustainability across the Department. This requires communicating sustainability policies, goals, objectives, and targets to their staff and developing the initiatives and tasks for implementation. Each of the CXO chiefs must

establish and enforce standards that ensure their aspects for implementing sustainability are carried out, reported accurately, and updated to reflect changing circumstances. Metrics must be established, tracked, and reported. This action takes leadership and the ability to make hard choices during a period when resources are already stretched thin.

Existing internal coordination processes are used to modify, update, and revise the Sustainability Plan. The CAO is charged with maintaining the most current copy of the approved and signed Sustainability Plan and will be responsible for coordinating it through the Sustainability Council, Sustainability Work Group and Departmental offices. CXOs are responsible for coordinating the Sustainability Plan through appropriate offices and Committees. CXOs are also responsible for coordinating the Sustainability Plan through Component level CXOs. CXOs will submit Sustainability Plan information, updates, status, and required reports to the CAO for appropriate review and coordination. CXO's Committees will supply information to the appropriate CXO.

The SSO challenges all DHS employees to work towards sustainability goals and encourages employees to solve tough sustainability challenges. Supervisors and managers must work to enable employee solutions to have an appropriate impact on the resolution of those challenges. In order to facilitate this action, the Sustainability Plan must be communicated to all employees. This is a continuous activity as employees need to receive updates on new issues, progress towards attaining objectives and targets and recognizing the achievements of individual groups and functions within DHS. Sustainability awareness training must be conducted periodically to remind existing employees and educate new ones on the DHS Sustainability Policy, the existence of the Sustainability Plan, the sustainability objectives and targets, and what they can do to participate and contribute to the attainment of those objectives and targets. Competency training addresses the specific competency that certain individuals need to exhibit when they are given roles and responsibilities that impact sustainability goals and objectives. DHS must develop and implement the appropriate systems, methods, and standards to support the management of a department-wide sustainability program and ensure optimal outreach to DHS employees.

C. Coordination and Dissemination of the Plan to the Field:

The Sustainability Plan will be shared with Components through the Sustainability Council, Sustainability Work Group and CXO committees. Components used the 2010 Sustainability Plan to develop their OSPPs. The Components will use the 2011 Sustainability Plan to update their OSPPs. Informational and awareness articles will be developed for *DHS Today,* the *CAO Pathways,* and other CXO or Component newsletters. Progress reports will become a standing item for the Management Council. Specific tasks include:

- CAO will coordinate posting the plan on the DHS intranet;

  Status: (Completed) Business process in place for the Department to post the Plan on the DHS intranet every year.

- USM and CAO will develop awareness materials for distribution to Components and field locations.

  Status: (Ongoing) USM and CAO are developing an employee engagement plan.

D. Department Policy and Planning Integration:

The Secretary issued a Sustainability Policy Memorandum on February 7, 2011. The SSO updated the Sustainability Plan Policy in June 2011. Components have the option to issue a separate policy letter. The DHS policy letter establishes and promotes sustainable practices and creates a culture for achieving sustainability goals at all levels of the organization.

E. Department Budget Integration:

The Department is taking iterative steps to transform its business methodology to ensure sustainable practices are incorporated at the outset and prioritized in the decision-making process. To achieve this vision, sustainability must be fully integrated into the budget process. OMB will review the Sustainability Plan and compare the status of current tasks and those proposed tasks to current budget submittals. Sustainability should not be a separate line-item in a budget, but rather each budget item should fully evaluate and then integrate sustainability requirements, as appropriate. The following tasks have been identified to help facilitate the integration of sustainability into the overall budget process:

Short Term (FY2010-FY2012)

- CFO (Policy) will include the requirement to demonstrate compliance with EO 13514 into Integrated Planning Guidance (IPG). EO 13514 initiatives include monitoring costs for petroleum products, hazardous materials use and disposal, potable water usage, power usage, non-potable water usage, diversion of construction and demolition (C&D) waste, elimination of waste through source reduction, paper products, purchases of ENERGY STAR® products, energy efficiency in data centers, etc.

  Status: (Ongoing) Identifying strategies and methodologies to integrate sustainability into the budget guidance.

- CFO (Policy) will ensure IPG information is distributed to all DHS Components that includes sustainability planning guidance.

  Status: (Action Pending)

- USM will ensure Components incorporate life-cycle cost analysis into capital planning for all facilities, infrastructure organizational realignments, information technology, and energy projects by including the requirement in the IPG and RAP processes.

Status: (Ongoing) Strategy being developed. Efforts are being made to ensure all new infrastructure, facilities, IT, and energy projects clearly demonstrate how sustainability has been factored into their planning efforts.

- USM will ensure that components identify alternatives to renovation that reduce deferred maintenance costs for existing assets. Include these in the formal Analysis of Alternatives developed during acquisition planning.

  Status: (Ongoing) Strategy being developed. Efforts are being made to ensure all new infrastructure, facilities, IT, and energy projects clearly demonstrate how sustainability has been factored into their planning efforts.

- USM (Cost Analysis Division) will provide guidance for including lifecycle costs in the budget analysis and budget decision-making during the rewrite of the Planning, Programming, Budgeting, and Execution (PPBE) sections.

  Status: (Action Pending).

F. Methods for Evaluation of Progress:

DHS has developed and maintains a series of metrics consistent with the upcoming OMB metrics. The CAO current quarterly environmental metric reporting system was overhauled by the CAO and changes made as practicable. Under the CAO process each Component is evaluated and rated for its status and progress. The CAO has also reviewed the Component level Plans and used the information in these plans for updating the Sustainability Plan. CAO also developed an EO 13514 dashboard for a quick assessment of DHS status towards achieving the goals of EO 13514. Results of the metrics and dashboard are used to update the SSO and Sustainability Council.

DHS must develop the capability to efficiently and effectively gather data and report progress on sustainability metrics, including energy consumption, waste production, and water usage. If DHS cannot accurately account for its consumption, it will not be able to effectively reduce consumption in compliance with the EO. Currently the data is collected manually on an infrequent basis in response to DHS data calls to meet OMB reporting requirements. New reporting requirements will rely on data that has not been collected in the past.

An enterprise-wide Sustainability Performance Management System is needed that will support the Department's information needs to adequately manage environmental and energy efforts to meet Administration requirements. These requirements include but are not limited to greenhouse gas emissions (Scopes 1, 2 and 3), acquisition data, inventory data, utility (energy) consumption data, fuel data, operations and maintenance data, program costs (direct and indirect), and disposal data. Each of these overarching data requirements will enhance the Department's ability to better manage its assets, reduce costs (near and long-term), provide mandatory reporting, minimize fraud, waste and abuse, enhance oversight, and ensure transparency of effort and cost. In addition, the knowledge gained from this information will allow the Department to make informed and educated decisions about environmental and energy management that will reduce operating costs through reduced energy consumption, better operations and

maintenance programs, and overall portfolio management. Additionally, the Department would be better positioned to reduce costs related to carbon emission credits.

DHS is using the Sustainability Plan as a higher-tier environmental management system (EMS) that provides the overarching construct that brings all DHS activities into a framework designed to achieve the sustainability objectives and targets of the Sustainability Plan. The Sustainability Plan aggregates and analyzes data from many individual program areas such as energy, water, waste management, recycling, and environmentally-preferable purchasing.

The following table indicates whether the EO goal is relevant to and has been fully integrated into listed reports or plans. A “Yes” response indicates that the EO goal has already been integrated. A “No” indicates that the EO Goal has not yet been fully integrated, is only partially integrated or no effort has yet begun on integrating the EO Goal into the plan. A “n/a” response indicates that the EO Goals are not applicable to the listed report or plan. The results indicate the current status of incorporating sustainability into the originating report and/or plan.

Table 4: Critical Planning Coordination

Originating Report / Plan	Scope 1 & 2 GHG Reduction	Scope 3 GHG Reduction	Develop and Maintain Agency 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
Government Performance and Results Strategic Plan [DHS Strategic Plan]	n/a	n/a	n/a	Yes	Yes	n/a	n/a	n/a	n/a	Yes
Departmental Capital Plan [Capital Investment Plans]	n/a	n/a	n/a	Yes	Yes	Yes	n/a	n/a	No	Yes
A-11 300s	n/a	n/a	n/a	Yes	Yes	Yes	n/a	n/a	Yes	Yes
Annual Energy Data Report	Yes	Yes	Yes	Yes	n/a	Yes	Yes	Yes	Yes	Yes
EISA Section 432 Facility Evaluations/Project Reporting	No	No	No	No	No	No	n/a	No	n/a	No
Budget	n/a	n/a	n/a	Yes	n/a	n/a	n/a	n/a	n/a	Yes
Asset Management Plan (AMP)/ 3 Year Timeline	n/a	n/a	n/a	No	n/a	n/a	n/a	n/a	n/a	n/a
Circular A-11 Exhibit 53s	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
OMB Scorecards	Yes	Yes	Yes	Yes	n/a	Yes	Yes	Yes	Yes	n/a
DOE's Annual Federal Fleet Report to Congress and the President	No	No	No	n/a	n/a	n/a	n/a	No	n/a	Yes
Data Center Consolidation Plan	n/a	n/a	n/a	No	n/a	n/a	n/a	n/a	Yes	n/a
EMS	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Affirmative	No	No	n/a	n/a	n/a	Yes	Yes	Yes	Yes	No

Originating Report / Plan	Scope 1 & 2 GHG Reduction	Scope 3 GHG Reduction	Develop and Maintain Agency 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
Procurement Plan (APP) for Green Purchasing										
Directive 025-01	No	No	No	Yes	No	Yes	Yes	Yes	Yes	No
NEPA Documents (Environmental Assessments (EAs) and EISs)	No	No	n/a	n/a	Yes	Yes	Yes	n/a	n/a	No
Instructions for Implementing Climate Change Adaptation Planning	No	No	n/a	No	No	n/a	n/a	n/a	n/a	No

V. Evaluating Return on Investment

A. Economic Lifecycle Cost / Return on Investment:

When evaluating initiatives and construction of new buildings, DHS will conduct lifecycle cost analyses and seek to fund projects with a high return on investment (ROI) and a positive cost benefit analysis. Using this approach recognizes the full service life of buildings and building systems by assessing the long-term effects of renovations or operational changes. Full lifecycle cost analyses help to ensure that federal dollars are spent wisely and energy savings are maximized. As a general guideline, for energy and water efficiency and conservation projects, DHS will pursue implementation of projects with a 10-year or shorter simple payback. However, as stated above, the ROI relative to the full lifecycle of the project or system will be taken into account. Thus, in some cases, the payback period for a project may be longer than 10 years, but if it is shorter than the expected life of the asset; such projects will also be considered.

B. Social Costs & Benefits:

- Most DHS facilities are not open to the public so there is little potential for recreational value, except for the employees at the facility. However, there are many other opportunities for consideration of social costs and benefits. This will be demonstrated through seeking to address geographically localized challenges or social benefits to personnel. For example, water conservation projects near high-drought areas will be more highly prioritized than in non-drought-prone areas.

- Currently, DHS employs a review process pursuant to the National Environmental Policy Act (NEPA) for all proposed construction projects and major actions. The NEPA process is currently used to evaluate the social benefits and costs of new construction and major renovation projects. Issues regarding Environmental Justice are an integral part of these analyses. Other social costs and benefits are also considered, such as cultural, historical and socioeconomic impacts (e.g., local employment). While these analyses are typically more qualitative than quantitative, DHS will strive to streamline the NEPA review process and ensure these aspects of the NEPA review are robust.

- Future efforts within DHS will focus on exploring the purchase of products from socially responsible vendors such as those who employ disabled persons and ensuring a fair living wage in contracts.

C. Environmental Costs & Benefits:

DHS will continue to integrate environmental considerations into the Department's planning and budgeting processes. As stated above, DHS employs a NEPA review process for all proposed construction projects and major actions to consider potential environmental impacts. DHS will continue to strive to ensure robust NEPA reviews and to minimize environmental impacts and costs. At this time, DHS identifies the cost of sustainability initiatives and measures quantitative benefits in terms of emission reductions, gallons of water saved, reduction in vehicle miles traveled, etc. Not all of the benefits can be translated into monetary benefits.

DHS has not tracked quantitative environmental cost and benefits for non-environmental projects, and therefore DHS can only produce qualitative information about the benefits of its environmental program. Capturing environmental costs within these projects would enable DHS to better identify the benefits of its environmental program. Costs could be identified in terms of dollars spent on the environmental portion of projects, disposal costs, fines, and penalties for non-compliance, and/or environmental response to incidents.

D. Mission-Specific Costs & Benefits:

Sustainability offers DHS the opportunity to reduce mission operational costs by reducing energy costs associated with its facilities and vehicles. Increasing miles per gallon in vehicles provides opportunities to extend the range of mission activity before filling the tank. Employing sustainable products provides benefits through enhanced operations, reduced maintenance and improved performance.

Reducing the use of hazardous material by substituting non-toxic or reduces toxic products can improve the work environment and reduce disposal costs. Practicing sustainability improves operational performance. Sustainable buildings provide better temperature and lighting control, are typically visually pleasing, and perform better than non-sustainable buildings. Occupants of sustainable buildings typically display pride and ownership of the building. All this leads to increased productivity from occupants working in these buildings.

The Federal Law Enforcement Training Center (FLETC) fired nearly 11 million rounds of lead free ammunition in FY 2010. Since 1994, FLETC has worked with its ammunition manufacturers to develop a variety of reduced hazard ammunition. The lead-free ammunition reduces health hazards for the instructors who spend hours per day on the range and eliminates the hazardous waste generated from the use of conventional ammunition.

The US Citizenship and Immigration Services (USCIS) working closely with GSA has obtained space in 22 Leadership in Energy and Environmental Design (LEED®) facilities (5 Gold, 14 Silver, and 3 Certified). USCIS has also developed a standardized solicitation for offers (SFO) that incorporates the requirement for a LEED® certified building. The SFO has been shared with all the Components to help facilitate obtaining sustainable space from GSA.

The Immigration and Customs Enforcement (ICE) installed a solar photovoltaic array on the roof of its Port Isabel Station, Texas. The array is capable of supplying up to 30 percent of Building A's electrical needs. This was part of a 5.1 percent increase in ICE's use of electricity from renewable energy sources in FY 2010.

The United States Coast Guard (USCG) recently completed a project that installed an 875 kW photovoltaic solar array at its Petaluma, California Training Center. This was done through a power purchase agreement where USCG obtains competitively priced electricity and renewable energy credits while the vendor receives the tax advantage. This is a win-win for both parties.

In FY 2010, FEMA began implementation of a major renewable energy project [i.e., Variable Refrigerant Volume Geothermal Heating, Ventilation and Air Conditioning (HVAC)] at its National Emergency Training Center in Emmitsburg, Maryland. The project will use a renewable source to displace electricity use equal to 7.9% of the overall FEMA renewable energy goal and provide purchased steam independence for a number of high occupancy facilities (e.g., classroom, offices, and dormitories).

E. Operations & Maintenance and Deferred Investments:

The CAO is developing a process for assessing a facility's condition to determine repair needs in operations & maintenance and deferred maintenance. In addition, a Decision Support Tool (DST) is also under development. The DST will aid in prioritizing investments to address repair needs, including deferred maintenance. The prioritization process utilizes Federal Real Property Category Council defined performance measures, including sustainability.

F. Climate Change Risk and Vulnerability:

Climate change is expected to affect the severity, frequency, or duration of extreme weather events, droughts, floods, sea-level rise, precipitation patterns, and the spread of life-threatening diseases. The projected impacts of climate change pose both direct and indirect security and resiliency risks to the Nation, core homeland security missions, and DHS infrastructure and operations. DHS is committed to augmenting its climate change mitigation efforts with adaptation to reduce risk and vulnerability to the impacts of climate change. DHS will plan, prepare for, and adapt to current and future changes in a way that will allow the Department to fulfill its missions and maintain its infrastructure and ability to operate successfully.

The DHS Climate Change Adaptation Task Force

To proactively address an emerging risk, the Department established the DHS Climate Change Adaptation Task Force (Task Force) in January 2010 as a broadly representative, intra-departmental group to identify and assess the impact that climate change could have on the Department's missions and operations. In October 2010, the Task Force produced the *"DHS Climate Change Adaptation Task Force Report"* that includes a summary of Task Force activities and analysis of key risks identified in case study regions as well as potential recommendations for how DHS should address climate change moving forward.

Potential Climate-Driven Risks to DHS

Through a regional case study analysis, the Task Force identified migration, infrastructure, and health as major, cross-cutting risks to the Department. These risks are summarized in Table 5 below.

Table 5: Summary of Three Major Climate-driven Risks to DHS

Migration-related risks	Infrastructure-related risks	Health-related risks
• Changes in cross-border migration patterns and flows may challenge enforcement, processing, and response capacities across government. • Increased population movements may accelerate the spread of infectious diseases. • Pressures are building for the international community to formally recognize "environmentally-induced migrants," which would have serious repercussions for the US and the Department.	• Changes in precipitation patterns, intensifying severe weather, and rising sea levels may threaten resiliency across the 18 Critical Infrastructure and Key Resources (CIKR) sectors and DHS infrastructure. • Continuity of operations, delivery of services, and emergency response will be challenged and made increasingly complex by damages or disruptions to the interconnected energy and infrastructure networks.	• Prevention, response, and recovery operations throughout government may be strained or overwhelmed as infectious diseases spread or increase in prevalence/virulence. • DHS personnel at points of entry may be vulnerable to disease transmission; increases in workforce illnesses would degrade operational capabilities. • Overburdened State and local governments may require greater Federal involvement and funding.

Task Force Recommendations

This Department-wide initiative led to 10 actionable recommendations for how the Department can begin to address the risks of climate change. The Task Force's recommendations serve as initial steps for DHS to adapt to the challenges of climate change.

1. Establish a governance structure to provide climate change adaptation leadership, accountability, and coordination.
2. Develop a DHS Climate Change Adaptation Directive to build awareness and provide direction across DHS.
3. Incorporate climate change into strategic planning as one of many cross-cutting drivers that influence current and emerging trends in the DHS mission space.
4. Consider climate change in the Homeland Security National Risk Assessment process as an additional risk to our national strategic interests.

5. Develop analytical and modeling tools, in coordination with other elements of the national security community, to better understand drivers and patterns of migration.
6. Review migration-related authorities and categories to determine the appropriate policies, measures, and procedures for environmentally-induced migrants; current definitions and categories for "migrants" may not adequately consider streams of people looking for refuge in the United States because of climate-induced reasons.
7. Review current mass migration plans, systems, and procedures to ensure the United States is prepared to handle both gradual increases and sudden influxes of environmentally-induced migrants.
8. Address climate change risks to infrastructure: (1) develop and obtain tools/methods to understand the vulnerability of both Critical Infrastructure and Key Resources (CIKR) and DHS-owned infrastructure and to (2) establish and apply criteria for future DHS capital improvements and investments that build in resilience and consider the impacts of climate change over time.
9. Strengthen key partnerships with the Centers for Disease Control and Prevention (CDC), the climate science community, and other Federal, State and local agencies, private sector, and international organizations that are engaged in adaptation efforts which will affect DHS missions and operations.
10. Enhance the Department's ability to respond to repeated or multiple "surge" demands by building a multi-skilled and resilient workforce.

Climate Change Adaptation Executive Steering Committee

To begin efforts of integrating climate change adaptation into the DHS culture and daily operations, the Department established the Climate Change Adaptation Executive Steering Committee (the Committee). The Committee is comprised of representatives at the Component head or Deputy-level from the USCG, FEMA, USCIS, NPPD, S&T, and DHS HQ. The Senior Counselor to the Secretary serves as the Chair to this Committee.

The Committee serves as the focal point for the Department's efforts on policies, programs, and processes regarding climate change adaptation. Committee members are responsible for implementing recommendations set forth by the Task Force, reviewing the DHS climate change adaptation implementation roadmap, developing recommendations from the roadmap to inform the DHS resource allocation process, and reviewing other climate change adaptation-related documents.

VI. Transparency

DHS is committed to Open Government. The Department is working to create a culture of transparency, participation, and collaboration in government operations and open new lines of communications with the American people.

DHS has a goal to improve the way government and the public interact, fostering a renewed partnership and public trust. The Department views information sharing as a critical success factor for DHS to meet its many missions including: protecting against and preventing terrorism, responding to emergencies of all kinds, and investing in

response and recovery capabilities. The common thread throughout the Department and throughout the mission areas is the critical need to share accurate and appropriate information in a timely manner. In many cases, sensitive information held by the Department is inappropriate for public release; however, it may need to be shared with other government entities entrusted with protecting public safety. Other types of information provide the public with valuable insights into how the Department carries out its missions and promotes public dialogue on departmental operations.

All efforts for transparency will follow the DHS Open Government Plan. This document describes current resources that support Open Government, shares insights received from public feedback, and identifies best practices to redefine relationships between the Department, other government agencies, private sector organizations, and citizens. The Sustainability Plan will be posted on the DHS Homepage.

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Section 2: Performance Review & Annual Update

I. Summary of Accomplishments

In FY 2010, DHS focused on meeting the requirements contained in EO 13514 by increasing energy efficiency, reducing GHG emissions, conserving and protecting water sources, eliminating waste, recycling, and preventing pollution. The Department's progress in achieving the targets under EO 13514 is closely related to achieving progress towards other energy related goals in EO 13423, EISA 2007, and Energy Policy Act of 2005 (EPAct).

Listed below are highlights of this year's achievements:

- DHS established the DHS Climate Change Adaptation Task Force in January 2010 as a broadly representative, intra-departmental group to identify and assess the impact that climate change could have on the Department's missions and operations. The Task Force produced the "DHS Climate Change Adaptation Task Force Report" that includes a summary of Task Force activities and analysis of key risks identified in case study regions as well as potential recommendations for how DHS should address climate change moving forward. In addition, DHS established a Committee comprised of representatives at the Component head or Deputy-level from the USCG, FEMA, USCIS, NPPD, S&T, and DHS HQ to begin efforts of integrating climate change adaptation into the DHS culture and daily operations and implement the recommendations set forth by the Task Force.

- DHS' energy use was consolidated and reported by ten DHS Components to better address the combined energy and GHG accounting requirements for 2010. The Department updated its 2008 inventory to fully meet EO 13514 requirements for GHG emissions quantification and management and established a formal baseline (Base Year FY 2008) for determining progress towards the established reduction targets. DHS submitted both its FY 2008 and FY 2010 inventories to the CEQ Chair and OMB Director on January 31, 2011.

- DHS achieved a 15.8% reduction in building energy intensity compared to 2003 across the Department through continued implementation of energy conservation measures (ECMs), alternatively financed energy projects, energy auditing, and education and outreach. DHS exceeded the requirement that 5% of total facility electricity use come from electricity produced by renewable energy sources, with a total of 7% renewable electricity use.

- DHS conducted a Department-wide survey to collect data associated with the commute of its employees. Using the survey results, DHS estimated the Department's total Scope 3 emissions associated with employee commuting. DHS conducted additional analysis to determine results by Components and to identify opportunities for reducing Scope 3 commuting GHG emissions.

- DHS is making progress in metering all of the buildings that are appropriate to meter in each Component's inventory. In 2010, 52.1% of appropriate buildings were metered, with 20.9% serviced by advanced meters. The actual level of appropriate metering is much higher than 52.1%. Because of the way the US Coast Guard currently meters at the campus level, the number of standard meters is underestimated. Advanced meters account for 20.9% of DHS electricity generation, with the remainder being serviced by standard meters.

- Approximately 95% of new building designs meet the requirements for Federal Building Energy Efficiency Standards by being 30% below ANSI/ASHRAE/IESNA Standard 901-2004, or by achieving the maximum level of cost-effective energy efficiency. Most of the remaining buildings are still in design phases and their maximum cost-effective energy efficiency is still to be determined.

- DHS spent almost $18 million on direct obligations, Energy Savings Performance Contracts (ESPCs), or Utility Energy Service Contracts (UESCs) in 2010, representing 14.5% of total facility energy costs. Alternative financing represented 10.7% of total facility energy costs.

- DHS Mobile Assets issued the DHS Motor Vehicle Fleet Program Acquisition Guide as an appendix section to the "DHS Motor Vehicle Fleet Program Manual" issued in January 2011. This Acquisition Guide provides DHS Components with detailed procedures for acquiring owned or leased motor vehicles.

- The Department has partnered with the DOE's Federal Energy Management Program (FEMP) and Clean Cities Coalitions to pilot an effort for conducting an analysis of DHS fuel use patterns to leverage new alternative fuel infrastructure development at retail gas stations. Five Clean Cities Coalitions throughout the Country will work with DHS Field Level Fleet Managers to determine how the data can be used to encourage retailers to invest in E85 infrastructure utilizing DHS (and eventually other agencies) to anchor demand for the fuel.

- DHS achieved a 13% (FY10 target of 6%) reduction in water use intensity at its facilities relative to an FY 2007 baseline, through continued implementation of water conservation measures, leak detection and repair, alternatively financed projects, water auditing, and education and outreach.

II. Goal Performance Review
1. GOAL 1: Scope 1 & 2 Greenhouse Gas Reduction

a. Goal description

The Department is committed to achieving the following Scope 1 and 2 GHG reduction goals:

1) Buildings

a) Reduce facility energy intensity.
b) Increase renewable electricity installation & use.
c) Reduce per capita energy consumption through space management policies.

2) Fleet

a) Reduce petroleum use in fleet vehicles.
b) Increase use of alternative fuels in fleet alternative fuel vehicles (AFVs) and Flex-Fuel Vehicles (FFVs).
c) Optimize use of vehicles and right-size fleet.
d) Increase use of low emission and high fuel economy vehicles.
e) Replace conventional senior executive fleet with low-GHG emitting, highly-efficient vehicles.
f) Streamline existing shuttle buses routes by consolidating ridership with other agencies.
g) Implement sustainable transportation options by: acquiring low GHG emitting vehicles such as hybrids and AFVs; optimizing the number of vehicles in the agency's fleet, using alternative fuel in AFVs and FFVs; developing alternative fuel infrastructure; direct spending on training; and procurement of environmentally preferable motor vehicle products.

3) Overall

The Department's target is to reduce GHG emissions from Scope 1 and Scope 2 sources by 25 percent by FY 2020 (relative to a FY 2008 baseline). DHS calculated its reduction goal using the CEQ prescribed tool called the Development of Agency Reduction Targets (DART). Rather than imposing this Department goal onto each Component, the DART was also used by each Component to develop a Component specific GHG reduction goal.

Specific Scope 1 and 2 targets for the Department and Components are listed in Table 6.

Table 6: Scope 1 and 2 GHG Reduction Targets and Goal

Agency	Total Scope 1 & 2	FY10	FY11	FY12	FY13	FY14	FY15	FY16	FY17	FY18	FY19	FY20
DHS	25%	1%	1%	1%	1%	1%	2%	4%	4%	4%	3%	3%
CBP	20%	10%	2%	2%	2%	2%	2%	2%	2%	2%	2%	0%
FLETC	28%	0%	5%	7%	4%	2%	2%	2%	2%	2%	2%	0%
FEMA	20.1%	0%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
ICE	34%	1%	2%	3%	3.5%	4.5%	3.5%	4.5%	3.5%	4.5%	3.5%	4.5%
NPPD	12.9%	0%	1%	2%	3%	4.5%	6%	8%	10%	11%	12%	12.9%
S&T	15.1%	0%	2%	0%	0%	0%	0%	0%	13.1%	Hold	Hold	Hold
TSA	2.6%	.5%	.5%	.3%	.3%	.4%	.6%	Hold	Hold	Hold	Hold	Hold
USCG	25%	4%	2%	2%	3%	2%	2%	2%	2%	3%	2%	2%
USCIS	11%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%	1%
USSS	20%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	Hold

b. Department lead for goal

The SSO will direct the activities of the Sustainability Council for target development, implementation and oversight.

The Sustainability Council will:

- Establish GHG emissions targets and other sustainability goals;
- Identify and prioritize implementation methods;
- Identify and prioritize opportunities to reduce GHG emissions;
- Assess the Department's progress;
- Engage other functional leaders, as necessary; and
- Coordinate with OMB and CEQ leadership on EO 13514/13423 issues, as necessary.

The Sustainability Workgroup (SWG) supports the Sustainability Council efforts. The SWG will:

- Review GHG emissions targets and other sustainability goals, and provide recommendations;
- Coordinate with CXO Committees, as necessary, to involve necessary experts, avoid duplication of effort, and communicate issues; and
- Lead discussions to seek consensus decisions on issues and recommendations.

The CXOs will:

- Coordinate with Component CXOs and Sustainability Councils to support the Sustainability Council efforts;
- Coordinate activities with Committee members and evaluate progress;
- Communicate and coordinate with program managers to ensure rapid collection and dissemination of information; and
- Work with Components to identify and implement projects.

The CAO will:

- Update the Sustainability Plan and Table 4 with information received from the Components and CXOs.

Components will:

- Review/update out-year targets for Table 6 in the OSPP;
- Develop, track and report GHG reduction initiatives and projects in the OSPP; and
- Provide necessary data to the CAO for updating the Sustainability Plan.

c. Implementation methods

The Department's Scope 1 and 2 targets will be achieved primarily through four approaches: energy efficiency, the use of renewable energy, reduced fossil fuel use by vehicle fleets, and the capture and use of methane from a landfill. The following are initiatives to reduce Scope 1 and 2 emissions:

1) Buildings

a) The Department plans to reduce facility energy intensity in facilities where DHS pays utility bills separately (i.e., not included in lease payments) through continued implementation of ECMs, alternatively financed energy projects, energy auditing, and education and outreach.
b) Utility Meter Installation: The Department recognizes the importance of measuring energy use and the value of the data; and plans to continue implementing an advanced metering infrastructure that will provide a system for collecting, tracking and reporting monthly data at the facility level consistent with EPAct and EISA requirements. Advanced meters provide critical data on how and when facilities use energy that is crucial to attaining energy use reductions and associated cost savings. Installing energy meters is only an enabling step--in itself; it does nothing to reduce energy intensity or costs. Realizing cost and energy reduction benefits will require DHS to design and implement an effective metering data collection, analysis, and reporting system. Appropriate DHS personnel will require training in the evaluation and application of metering data.
c) The Department has developed a Metering Implementation Plan to address opportunities to install and utilize meters and advanced electrical meters to

reduce energy costs and improve operations throughout the Department. In the future, advanced metering will be applied towards natural gas and steam.

d) DHS intends to meet and exceed Federal renewable energy requirements by purchasing renewable energy and installing on-site generation capacity. DHS will evaluate available technologies and identify cost effective renewable energy projects. Over time, the percentage of renewable energy produced on-site will increase, and DHS will use appropriate financing mechanisms to execute these projects.
e) The Department is reducing per capita energy consumption through development and implementation of space management policies.
f) DHS intends to streamline existing shuttle buses routes by consolidating ridership with other agencies.

2) Fleet

a) The Department implemented policy instructing Components to acquire hybrid electric vehicles or AFVs when hybrids are not practicable, as part of the DHS Secretary's 120 Day Efficiency Review Initiative.
b) The Department plans to replace conventional senior executive fleet with low-GHG emitting, highly-efficient vehicles.
c) The Department issued the DHS Motor Vehicle Fleet Program Acquisition Guide in January 2011 to provide DHS Components with detailed procedures for acquiring owned or leased motor vehicles.
d) The Department plans to implement sustainable transportation options by: acquiring low GHG emitting vehicles such as hybrids and AFVs; optimizing the number of vehicles in the Department's fleet, using alternative fuel in AFVs and FFVs; developing alternative fuel infrastructure; direct spending on training; and procurement of environmentally preferable motor vehicle products.
e) To ensure compliance with the Energy Policy Act of 1992 which states that 75 percent of light duty acquisitions not used for law enforcement be AFVs; all orders for DHS owned and leased vehicles will be reviewed by the Department Fleet Manager.

3) Other

a) The Department will address GHG emissions associated with energy consumption through a variety of strategies that align with Federal and DHS goals to reduce the energy intensity (Btu/square foot) of Federal buildings, construct high-performance Federal buildings and maximize the use of renewable (e.g., solar, wind) and alternative energy (e.g., combine heat & power), especially through on-site generation). The following is the goal of the DHS Renewable Energy Plan:

    - Renewable energy resources will supply 15 percent of DHS' annual energy requirements by FY 2015.

Recognizing that appropriated funding for energy investments will not cover all Departmental priorities, DHS will employ a variety of financing mechanisms, as appropriate, to execute energy projects. Financing mechanisms may include:

- ESPCs;
- UESCs;
- Third party agreements, such as Power Purchase Agreement;
- Participate in demand response incentive programs offered by utilities and other organizations (such as regional transmission operators). These incentive programs include rebates or grants given for installing energy- or water-saving equipment or systems; and
- Reinvestment of Savings: Cost savings generated by alternative financing (including incentives) should be reinvested back into the Energy Program.

b) Other strategies and methods that may be used include:

- Capturing Fugitive Emissions;
- Reducing energy use at facilities excluded from energy reduction goals, such as: process energy loads, excluded mobility fuel use, and other energy use excluded from energy reduction goals;
- Using non-electrical forms of renewable energy (i.e., thermal, mechanical, biomass, landfill gas); and
- Maximizing building operations and maintenance through re/retro-commissioning programs.

In order to achieve this goal, DHS and its Components have developed a high level approach that includes short-term, medium-term and long-term activities/initiatives.

Short Term (FY2010-FY2012)

- CAO will procure software tools that evaluate GHG emissions from energy, fuel, petroleum, chemical use, and other sources within available budget guidance.

  Status: (Ongoing) CAO utilized the Federal Automotive Statistical Tool (FAST) to calculate the fuel use of Department vehicles. The federal agency GHG inventory tool was used to calculate the Department's FY 2008 baseline and FY 2010 inventory.

- CAO will evaluate the implementation of advanced metering infrastructure and data collection and analysis approach within available budget guidance; this information will be used to target potential projects and measure results. Provide training on use of these data tools and protocols to appropriate personnel so the information can be effectively analyzed and applied;

  Status: (Completed) Identified infrastructure requirements in conjunction with National Technical Information Service.

- CAO (Fleet Management) will establish a pilot program to determine the feasibility of replacing law enforcement (LE) vehicles used for administrative purposes with AFVs;

  Status: (Completed) As a result of a memorandum signed by the Secretary in January 2011, DHS reclassified its LE vehicles into the following Three Tiers:
  LE1 - Exempt – Vehicles built for high speed pursuit, off-road, or dignitary protection and used for that purpose 75% or more. The Secretary signed an exemption for these in January 2011.
  LE2 –Vehicles used for intelligence, investigations, and surveillance. No exemptions sought.
  LE3 –Vehicles used for administrative type LE operations. No exemptions sought.

- CAO (Fleet Management) will continue outreach to privately owned alternative fuel stations to gain access for DHS vehicles.

  Status: (Completed) CAO (Fleet Management) has partnered with DOE's FEMP and Clean Cities Coalitions to pilot an effort to conduct analysis of DHS fuel use patterns to leverage new alternative fuel infrastructure development at retail gas stations. Five Clean Cities Coalitions throughout the Country will work with DHS Field Level Fleet Managers to determine how the data can be used to encourage retailers to invest in E85 infrastructure utilizing DHS (and eventually other agencies) to anchor demand for the fuel.

- CAO will set mandatory targets for energy savings from retrofits and work with performance contractors and Energy Service Companies to establish DHS retrofit performance rates to determine final department-wide percentage reduction;

  Status: (Ongoing) Targets being incorporated into the ESPC Plan.

- CSO will research, identify, and evaluate systems, equipment, and lighting that require less energy without degrading effectiveness. This includes more energy efficient standalone systems as well as opportunities to combine multiple systems into fewer or single systems with a reduced energy requirement. Also research, identify, and evaluate security system infrastructure (e.g., power and signal lines, cabling, connections, barrier materials) to determine those that require less energy, have less energy loss, or reduce energy needs.

  Status: (Completed) Incorporated into the CSO business process.

- CSO will identify those functions suitable for automation and paper reduction, and determine new more efficient methods of performing.

  Status: (Completed) Incorporated into the CSO business process.

- CAO will perform preliminary renewable opportunity analysis to target states/regions that offer renewable opportunities based on 1) DHS facility footprint 2) Resources availability 3) Economics (e.g., utility rates, state incentives).

  Status: (Completed) DHS performed a renewable energy optimization study for 120 facilities nationwide. The opportunities identified are being reviewed for potential projects.

- CAO will use available information to target facilities for retro-commissioning and/or energy audits. Facility re/retro-commissioning plans will be based on available data and prioritize facilities to be commissioned.

  Status: (Completed) Covered facilities under EISA 432 have been identified and entered into the Compliance Tracking System. Based on this data, buildings are being prioritized for re-/retro-commissioning opportunities.

- Components will ensure annual energy audits are completed and are consistent with Federal mandates and include GHG analysis.

  Status: (Completed) Incorporated into the Components OSPPs. DHS will review the Compliance Tracking System to monitor Component performance.

- CFO and USM will ensure that all Lifecycle Cost Estimates submitted during a Level 1, 2, or 3 acquisition must include a calculation for the ROI for any sustainability efforts included as part of the acquisition. This will help ensure higher upfront costs for sustainable solutions are not eliminated during the budgeting process when they could have beneficial budgetary effects in future years.

  Status: (Action Pending)

- CFO will increase use of renewable energy by making Component CFOs and Budget Analysts aware of the cost benefits of implementing renewable energy practices in their planning, purchasing and use of services or deliverables.

  Status: (Action Pending)

- CFO will continue to support the reporting and analysis of fuel usage through operation and maintenance of the Fleet Management Analysis and Reporting System.

  Status: (Completed) CFO continues to support the system.

- CAO will ensure facilities review existing Operations & Maintenance training and conduct gap analysis to identify potential improvement areas.

Status: (Completed) Incorporated into the Facilities Design and Construction Guidance Manual currently under development.

- DHS will enhance current energy outreach and awareness activities (e.g., October is Energy Awareness Month) to include information about GHG impacts. Educating employees regarding the energy and GHG impacts of their daily activities and simple changes they can make, for example:

    - Securing and turning off energy-consuming systems and equipment under their personal control when not in use, including lights, fans, personal computer equipment;
    - Securing and turning off appropriate common systems and equipment such as lighting, coffee pots, kitchen appliances, and copiers, at the end of the workday;
    - Switching off unnecessary lights and equipment;
    - Photocopying only what is needed and photocopying and printing double-sided;
    - Where available, close blinds at appropriate times of the day to reduce energy loss through windows.
    - Unplugging equipment that drains energy when not in use (e.g., cell phone chargers, coffee makers, and radios); and
    - Using ENERGY STAR® products and ensuring that power-down features are activated.

    Status: (Ongoing) Initial employee awareness training for sustainability is being developed.

- CAO (Fleet Management) will conduct a fleet analysis to identify right-sizing and alternative fuel opportunities.

    Status: (Ongoing) DHS is developing a Vehicle Allocation Methodology (VAM), a tool for establishing and controlling fleet size and composition, more succinctly and popularly termed “right-sizing.” DHS is currently in the second of three phases of a pilot program with several Components. This phase includes surveys that have to be completed by motor vehicle operators at the Field Office level. From the standpoint of OMB, a VAM documents the basis for fleet size and, consequently, fleet-related budgets. It requires a standard and consistent method for the collection, management and analysis of comprehensive fleet data used and should enable Components to undertake and statistically support their fleet-size decision making. This includes developing a fleet baseline profile to identify current vehicle assets and how they match with DHS mission needs and ensuring that future vehicle fleets are not overly expensive, are correctly sized in terms of numbers, and are of the appropriate type for accomplishing Component missions while achieving sustainability goals. Components may develop their own VAMs, but the method and statistical outputs must have final approval from the DHS Fleet Manager before being accepted as conforming with FMR 102-34.50 (b) and GSA Bulletin #9, VAM. At a minimum, a standard VAM program

requires an accurate fleet inventory, utilization data (mileage or hours), a comprehensive justification protocol, a process for dealing with unjustified vehicles, and establishment of a Table of Allocation (the baseline fleet).

- DHS will complete Home-to-Work (HtW) analysis and identify possible reductions.

  Status: (Ongoing) DHS completed its analysis of HtW within the Department and determined that significant changes needed to be made. Because the changes needed to address HtW appear to impact the Inter-Agency, DHS has partnered with DOJ, GSA, and Treasury to establish a HtW Executive Steering Committee (ESC) and Working Group (WG). The ESC convened in April and the WG will meet in May. The WG will produce recommendations that will be presented to the ESC tentatively in late May. When approved, these recommendations will be taken for Inter-Agency action by GSA, and Intra-Agency action by DHS.

- CBP will use Idle Reduction Technology in Enforcement Vehicles: anti-idle technologies exist that allow interior enforcement systems and vehicle heating systems to function with limited or no idle time.

  Status: (Action Pending) New item from 2010 OSPP.

- ICE will award Comprehensive Energy Services Contracts to perform energy and water audits at ICE owned facilities.

  Status: (Action Pending) New item from 2010 OSPP.

- FLETC will evaluate ESPC contractor proposals it has received for assisting it in meeting energy and water reduction requirements.

  Status: (Action Pending) Contract negotiation under way.

- USCIS will enhance current energy outreach and awareness activities to include information about GHG impacts.

  Status: (Action Pending) New item from 2010 OSPP.

Medium Term (FY2013-FY2017)

- CAO (Energy Management) will develop a plan for performance assessment and measurement of completed energy projects. The plan will include benchmarking and long-term measurement and verification (M&V) of cost, energy and GHG savings.
- CAO (Energy Management) will develop a plan for implementing preventative maintenance programs at appropriate facilities. The maintenance programs will focus on optimizing the efficiency of current systems. This program will incorporate the results of on-going building retro-commissioning. It will also include an approach for providing needed training to facility O&M staff:

    - Work with maintenance managers and key stakeholders to update and redefine, if necessary, specific maintenance procedures for the O&M staff targeted at improving the efficiency of operations; and
    - Develop training for the operations staff in the principles and technologies applicable to their buildings or systems and integrate that training into existing courses.
- CAO (Energy Management) will ensure that lighting retrofits are typically short payback investments. Accordingly, lighting upgrades have been and will continue to be a high priority investment for DHS. Similarly, proper lighting design offers opportunities to improve the efficiency of new construction. DHS will continue to take advantage of high efficiency lighting technology such as:
    - Spectrally enhanced lighting - These lamps have a better color rending index (CRI) and color temperature, which translates to light that is perceived as being brighter and of better quality by the human eye. Energy savings are possible because enhanced lighting allows equal vision with lower lighting levels;
    - Explore opportunities to establish daylight as primary daytime lighting source to offset reliance on electrical lighting systems; and
    - Light Emitting Diodes (LEDs) for both interior task lighting and exterior sight lighting. LEDs are a rapidly evolving technology. The most appropriate application for LEDs is parking lot and exterior lighting. LED sight lighting is a relatively new technology that has proven to be successful. Although the upfront investment will be greater than conventional technologies, operational savings often make the LED life cycle cost effective.
- CSO will deploy energy efficient systems, equipment, and techniques into new security modernization, renovation, construction, and replacement projects.
- CSO will establish and Implement new processes, measure effectiveness, make improvements and expand as possible.
- DHS and Components will conduct benchmarking analysis to assess facility performance over time and to compare similar facilities. The results will be used to prioritize target projects and investments.
- DHS and Components will evaluate renewable energy opportunities: DHS facilities have extensive land and rooftop area that can be used for land-intensive, alternative energy sources like solar, biofuels, geothermal, and wind – as the U.S. Coast Guard has already begun to demonstrate in its sustainability efforts. These installations can often be cost competitive and implemented with minimal upfront capital through lease arrangements on land or facilities already owned by DHS. The department should look for additional opportunities appropriate to local conditions such as availability of local natural resources, local utility rates, and other local factors. DHS should also periodically reevaluate opportunities as these technologies mature and the prices or trend downward.
- DHS and Components will continue to implement the DHS retro-commissioning plan, targeting facilities by their priority. DHS facilities will be retro-commissioned to ensure they are operating at the highest levels of efficiency currently possible.

- DHS and Components will continue to update and enhance energy awareness and education activities. They will develop awards programs to recognize individuals, teams and projects that have advanced DHS sustainability goals.
- CBP will deploy and implement a Fleet Information Management System to provide strategic capabilities relative to the maintenance and management of CBP fleet assets.
- CBP will install E85 and/or Bio Diesel fuel tanks at new CBP vehicle fueling centers.
- ICE will initiate UESC and ESPC at appropriate facilities.
- TSA will educate workers on how they contribute to energy efficiency through outreach events on Earth Day and Energy Awareness Month.
- S&T will conduct energy audits to identify GHG emission reduction opportunities.
- USSS will automate the collection, tracking and reporting of annual energy data.
- USCIS will specify energy efficient security systems, equipment, and techniques when upgrading existing or installing new systems.
- USCIS will conduct a fleet analysis to identify right-sizing and alternative fuel opportunities.

Long Term (FY2018-FY2021)

- CSO will retrofit any remaining energy inefficient security systems, equipment, lighting, and infrastructure.
- CSO will establish and implement new processes, measure effectiveness, make improvements and expand as possible.
- DHS and Components will implement renewable and clean energy options using land and facilities available to DHS.
- Components will identify sites for the construction of large-scale renewable energy facilities that will help the department accomplish its mission with a more reliable and secure energy supply.
- CAO (Energy Manager) will implement a plan to deploy regional energy managers focused on energy efficiency who can work with multiple Components in their respective regions.
- DHS and Components will direct their facilities to perform retro-commissioning to ensure they are operating at the highest levels of efficiency currently possible.
- CFO will ensure the use of lifecycle cost assessments for subject level 3 acquisitions capital and operating projects that affect energy use. This approach recognizes the full service life of buildings and building systems by assessing the long-term effects of renovations or operational changes. These assessments would ensure that federal dollars are spent wisely and energy savings are maximized.
- CFO will ensure that analysts are trained to review construction and major renovation or repair plans for sustainability measures, such as the use of renewable energy, purchase of recyclable materials, etc. If no sustainability measures are incorporated in the plan, the analyst will follow-up with the Program Manager for clarification on why no sustainability efforts were made in the plans.

- DHS and Components will conduct performance assessment and M&V of energy investments as defined in the DHS M&V plan.
- USCIS will review new facility lease acquisitions to ensure facilities are operating at the highest levels of efficiency currently possible, within practical economic considerations.

d. Positions

At the Department level there are no positions dedicated solely to the reduction of scope 1 and 2 GHG emissions. The Environmental Manager, Energy Manager, and Fleet Manager, in addition to their other tasks, will perform the tasks necessary to reduce scope 1 and 2 GHG emissions. The CAO has hired two additional staff positions to support the environmental and energy programs.

DHS Components:

- At NPPD, CBP, FLETC, S&T, TSA, and USCIS there are no positions dedicated solely to the reduction of Scope 1 and 2 GHG emissions nor are any needed at this time. The responsibility to address these requirements is shared among staff from several program offices, all of whom in FY11 will leverage existing resources to provide the level of support required.

- FEMA: At this time, it is not possible to accurately determine the total amount of positions/resources dedicated to this goal. FEMA will work with DHS to develop a procedure to report positions and resources associated with this goal by the end of FY11.

- ICE: There is currently one position dedicated to achieving Scope 1 and 2 GHG reduction goals in the Office of Asset Management and Fleet. The responsibility to address these requirements is shared among staff from several program offices, all of whom in FY11 will leverage existing resources to provide the level of support required.

- USCG: The Coast Guard currently maintains two full time positions: (i.e., one in the CG-46 Energy Program and one in the CG-43 Vehicle Program) for work that includes Scope 1 and Scope 2 GHG gas reduction. This is not enough to keep pace with expanding requirements and initiatives are underway to secure additional billets. In addition the Shore Infrastructure Logistics Center (SILC) is developing an Energy Management Division for planning and implementation of shore energy projects. These full time billets are supplemented by collateral duty civilian personnel in other USCG organizations, such as contracting officers, lawyers, engineers, environmentalists and financial personnel who provide assistance on an ad hoc basis. With the additional assistance of contracted resources, the Coast Guard anticipates that it is adequately staffed to oversee, manage, and execute the implementation of Scope 1 and 2 GHG emission reduction initiatives.

- USSS: The Secret Service recently hired a full-time environmental protection specialist. The Environmental Specialist will be primarily responsible for capturing and monitoring Scope 1 and 2 GHG emissions data. This position will be supported by numerous individuals who are appointed as OSPP representatives across the various Directorates/Divisions.

e. Planning table

The following planning table was completed based on input provided by the Components in their OSPPs, and the FEMP's Annual GHG and Sustainability Data Reports, among other sources.

Table 7: Scope 1 and 2 GHG Target

SCOPE 1&2 GHG TARGET	Unit	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15	…	FY 20
BUILDINGS									
Energy Intensity Reduction Goals (BTU/SF reduced from FY03 base year)	%	15%	18%	21%	24%	27%	30%	…	Hold
Planned Energy Intensity Reduction (BTU/SF reduced from FY03 base year)	%	n/a	18%	21%	24%	27%	30%	…	Hold
Renewable Electricity Goals (Percent of electricity from renewable sources)	%	5%	5%	5%	7.5%	hold	hold	…	Hold
Planned Renewable Electricity Use (Percent of electricity from renewable sources)	%	n/a	5%	5%	7.5%	hold	hold	…	Hold
FLEET									
Petroleum Use Reduction Targets (Percent reduction from FY05 base year)	%	10%	12%	14%	16%	18%	20%	…	30%
Planned Petroleum Use Reduction (Percent reduction from FY05 base year)	%	n/a	12%	14%	16%	18%	20%	…	30%
Alternative Fuel Use in Fleet AFV Target (Percent increase from FY05 base year)	%	61%	77%	95%	114%	136%	159%	…	Hold
Planned Alternative Fuel Use in Fleet AFV (Percent increase from FY05 base year)	%	n/a	77%	95%	114%	136%	159%	…	Hold
Senior Executive Fleet Replaced with Low-GHG, High Efficiency Vehicles (Percent replaced from FY08 base year)	Zero thru FY12	1	1	1	6	10	12		19
Total Scope 1&2 GHG Emissions (Comprehensive)	MMT CO2e	1,717,333.5	1,658,314	1,641,393	1,624,471	1,607,550	1,573,706	…	1,269,118
Total Scope 1&2 GHG Emissions (Subject to Agency Scope 1&2 GHG Reduction Target)	MMT CO2e	663,241.4	752,225	744,549	736,874	729,198	713,846	…	575,682.
Overall Agency Scope 1 & 2 Reduction (reduced from FY08 base year)	%	1	2	3	4	5	7		25

f. Department status

The Department is updating Directive 025-01 *Sustainable Practices for Environmental, Energy, and Transportation Management* to reflect the requirements set forth by EO 13514 and establish policy for reducing Scope 1 and 2 GHG emissions. The Directive incorporates GHG reduction policy through the following programs:

- Renewable energy purchase programs and programs for the development of renewable distributed generation energy projects at DHS facilities;

- Procurement programs to acquire low GHG, hybrid and AFVs;

- Programs to ensure that new construction and major renovation of Departmental buildings comply with the Guiding Principles for Federal Leadership in High Performance and Sustainable Buildings and when direct leasing or leasing through the GSA, that DHS requests space that meets these principles;

- Programs to ensure that the Department operates the vehicle fleet to reduce its total consumption of petroleum, increase the total fuel consumption of alternative fuels, and acquire hybrid electric vehicles or AFVs when hybrids are not practicable; and

- Programs to ensure the Department buys Electronic Product Environmental Assessment Tool (EPEAT)-registered electronic products, enables the ENERGY STAR® features on Department computers and monitors, establishes and implements policies to extend the useful life of its electronic equipment, and uses environmentally sound practices with respect to disposition of electronic equipment that has reached the end of its useful life.

The Department's Energy Management Program is guided by the DHS Master Energy Plan, which establishes program strategies and tactical actions for achieving substantial energy savings which will also reduce GHG emissions. The Master Energy Plan addresses energy sources, supply management, emerging technologies, and energy reliability and security. DHS is making progress in metering all of the buildings that are appropriate to meter in the Department's inventory. In 2010, 52.1% of appropriate buildings were metered, with 20.9% served by advanced meters. The actual level of appropriate metering is much higher, but because of the way the US Coast Guard currently meters at the campus level the number of standard meters is underestimated. Advanced meters account for 20.9% of DHS electricity generation, with the remainder served by standard meters. When these differences are considered, 100% of the electricity is metered.

In 2010, DHS achieved a 15.8% reduction in building energy intensity compared to 2003 across the Department through continued implementation of ECMs, alternatively financed energy projects, energy auditing, and education and outreach. DHS exceeded the requirement that 5% of total facility electricity use come from electricity produced by

renewable energy sources, with a total of 7% renewable electricity use. DHS Components with exceptional performances include:

- ICE with an 18.7% reduction in energy intensity at its facilities.
- S&T with an 16.7% reduction in energy intensity at its facilities.
- USCG with an 18.7% reduction in energy intensity at its facilities.

g. Return on investment

No projects have been cancelled or suspended due to a lower than expected ROI. The Department continues to strongly encourage the use of ESPC and UESC as a way of implementing energy and water projects without direct appropriation. These projects are typically rated in terms of number of years and payback. Complex projects with long lived equipment may be feasible out to 25-30 years.

h. Highlights

In April 2011, DHS Mobile Assets issued the DHS Motor Vehicle Fleet Program Acquisition Guide as an Appendix to the "DHS Motor Vehicle Fleet Program Manual" issued on January 2011. This Acquisition Guide provides DHS Components with detailed procedures for acquiring owned or leased motor vehicles. The Guide also requires DHS Fleet Managers to acquire vehicles in the following order: Electric, Hybrid, and then AFVs (as requested by President Obama during his March 30th speech on America's Energy Security). Vehicles were prioritized in this order because Components may try to order only E85 vehicles, as they are the least expensive. AFVs can only be acquired for locations where the fuel is available. When fuel is not available an electric or hybrid vehicle must be selected. By 2012 all vehicle acquired by DHS must comply with this guidance.

As a result of a memorandum signed by the Secretary in January 2011, DHS reclassified its LE Vehicles into Three Tiers as follows:

- LE1 - Exempt – Vehicles built for high speed pursuit, off-road, or dignitary protection and used for that purpose 75% or more. S1 signed an exemption for these in January 11.
- LE2 –Vehicles used for intelligence, investigations, and surveillance. No exemptions sought.
- LE3 –Vehicles used for administrative type law enforcement operations. No exemptions sought.

DHS Components will consider Electric, Hybrid, and AFV vehicles (in that order of preference based on President Obama's March 30, 2011 speech) for LE 2 and 3 classifications when replaced (3-5 year cycle), resulting in a new total of approximately

23,000 Hybrid/AFV vehicles across DHS. Potential Fuel Savings – (FY12-FY16) at 2,000 Vehicles Replaced Per Year = 1.5 - 2M gallons.

The Department has contracted to develop a VAM, which is a tool for establishing and controlling fleet size and composition, more succinctly and popularly termed "right-sizing". This tool documents the basis for fleet size and, consequently, fleet-related budgets. It requires a standard and consistent method for the collection, management and analysis of comprehensive fleet data used and should enable Components to undertake and statistically support their fleet-size decision making. This includes developing a fleet baseline profile to identify current vehicle assets and how they match with DHS mission needs and ensuring that future vehicle fleets are not over-costly, are correctly sized in terms of numbers, and are of the appropriate type for accomplishing Component missions while achieving sustainability goals. Components may develop their own VAM, but the method and statistical outputs must have final approval from the DHS Fleet Manager before being accepted as conforming with FMR 102-34.50 (b) and GSA Bulletin #9, VAM. At a minimum, a standard VAM program requires an accurate fleet inventory, utilization data (mileage or hours), a comprehensive justification protocol, a process for dealing with unjustified vehicles, and establishment of a Table of Allocation (the baseline fleet). DHS is currently in the second of three phases of a pilot program with several Components. This phase includes surveys which have to be completed by motor vehicle operators at the Field Office level.

The Department partnered with the DOE's FEMP and Clean Cities Coalitions to pilot an effort for conducting analysis of DHS fuel use patterns to leverage new alternative fuel infrastructure development at retail gas stations. Five Clean Cities Coalitions throughout the Country will work with DHS Field Level Fleet Managers to determine how the data can be used to encourage retailers to invest in E85 infrastructure utilizing DHS (and eventually other agencies) to anchor demand for the fuel.

DHS Component Successes:

- FLETC established an Energy Management Office and initiated a process to explore the implementation of an ESPC that would cover energy needs at all four FLETC training sites. The ESPC contractor was selected and a kickoff meeting held August 21, 2010. All site evaluations were completed on September 24, 2010. In FY11, FLETC will evaluate an ESPC contractor proposal for meeting energy and water reduction requirements.

- USCG initiated several alternatively financed projects, including:

    - ESPC for Air Station Borinquen and Sector San Juan in Puerto Rico;
    - ESPC in Base Support Unit (BSU) Portsmouth, Virginia, Training Yorktown, Virginia, and BSU Elizabeth City, North Carolina; and
    - Pre-development of multiple UESC and PPA projects.

- FLETC exchanged more than 300 older vehicles for newer hybrid and FFVs using ARRA funds.

- USCG awarded an enterprise-wide procurement/installation project for advanced electricity meters that will satisfy the requirements of the EPAct.

- USCG created an overarching Energy Management Strategy document, signed by the Commandant on May 3, 2010 that lays the groundwork for sustainable and integrative energy management. USCG combined its shore GHG reduction commitments with its energy management program as part of its official Energy Management Strategy.

- USCG implemented annual vehicle replacement reviews to ensure compliance with EISA GHG score vehicle acquisition requirements.

- USCG started up an 875 kW solar photovoltaic (PV) array at Training Center Petaluma, California, that will offset 17,000 tons of GHG emissions annually (developed through a power purchase agreement financing mechanism.

- USCG completed or developed numerous renewable energy projects focusing on the following technologies: solar photovoltaic arrays, wind turbines, solar domestic hot water, biomass boilers, and tidal generators.

- S&T conducted environmental, energy, and health & safety audits at the Plum Island Animal Disease Center (PIADC), New York, Transportation Security Laboratory (TSL), New Jersey, and National Urban Security Technology Laboratory (NUSTL), New York, (formerly the Environmental Measurements Laboratory), helping to identify successes and opportunities at S&T-managed facilities.

- FEMA's Center for Domestic Preparedness (CDP) in Anniston, Alabama has initiated several actions and programs to reduce energy and GHG emissions, as well as prevent pollution. Specific ongoing actions include:

    - Replacing a portion of gasoline powered vehicles with electric vehicles. Gasoline vehicles will continue to be replaced with electric vehicles as funding becomes available.
    - Replacing boilers in the dorms and main buildings with energy efficient systems.
    - Replacing all shower heads in the dormitories with water efficient shower heads.
    - Partnering with the Anniston Army Depot to recycle paper, aluminum, plastic, and glass products.
    - Replacing water chillers and HVAC systems with energy efficient systems.

- FEMA developed an implementation plan in FY 2010 to address alternative financing mechanisms to meet energy conservation requirements (e.g., ESPCs and UESCs).

- FEMA completed nine facility energy audits encompassing 60 individual buildings to identify potential ECMs.

- CBP established a Green Team (El Paso Sector Green Team) for creating, implementing, and promoting energy conservation and awareness to minimize environmental impact.

- NPPD has to date increased the number of AFVs to 1010 vehicles and acquired six hybrid electric vehicles. This represents 70.7% of the entire NPPD leased fleet.

- USSS, although exempt from GHG reductions for LE vehicles, has integrated FFVs into 4 percent of the fleet.

- USSS received a consultation report on “Renewable Electricity Installation and Use” from the Department of Energy National Renewable Energy Laboratory to determine the types of renewable energy that might best serve the USSS based on geographic location, and determine its feasibility and ROI. The funding was provided by DHS. USSS will review the report and determine how best to implement renewable alternatives.

- DHS Component Challenges:

- The shift to sustainability will require greater attention from all Component organizations and activities. Over the years, other Component functions have largely relied on the environmental and safety staff to address these areas of concern. Components recognize that in order to be successful, sustainability must be integrated into the Components' culture. Every employee needs to understand, participate in and contribute to the attainment of sustainability goals. This culture shift will take years to be fully imbedded into the Components' operations, and training and incentives will be necessary.

- FEMA's focus is on emergency response and working under adverse conditions; therefore, sustainability may not always be a priority. The challenge to making sustainability successful at FEMA will be accomplished by integrating sustainability into the planning process so that it becomes routine for employees.

- NPPD does not own the space they occupy, and do not possess building management delegation authority for any of their leased space. As such, they do not directly manage the energy usage at their facilities so they have limited opportunities to contribute to reducing Scope 1 and 2 GHG emission reductions.

- Until a Sustainability Performance Management System that is capable of capturing all of the data required to measure and report performance under EO 13514 is created, Components will continue to divert time and resources from daily operation activities to obtain the information required for reporting manually.

- At USCIS, CBP and S&T, the lack of alternative fuel infrastructures near their facilities impedes meeting the goal of increasing the use of AFVs.

- CBP is developing the Program Reporting Management System (PRMS) that has significant potential to serve as a primary data capture and management tool for sustainability metrics. Ensuring that the system is properly aligned to the business process in development necessary to implement, monitor and measure sustainable programs is critical for success. The challenge will be developing enough of the processes to ensure that the data needs to support implementation are incorporated into the PRMS.

- For USSS, it will be challenging to fulfill its unique mission while meeting GHG emissions reduction targets.

2. GOAL 2: Scope 3 Greenhouse Gas Reduction & Develop and Maintain Agency Comprehensive Greenhouse Gas Inventory

a. Goal description

1) Scope 3 GHG Reductions

The Department's goal is to reduce GHG emissions from Scope 3 sources by 7.2 percent by FY 2020 (relative to an FY 2008 baseline). Following are the Department's targets for reducing Scope 3 GHG emissions by category:

- Purchased electricity T&D losses: 13.2%
- Contracted waste disposal: 10.7%
- Federal employee travel: 6.6%

The Department established these goals based on the total emissions and estimated reductions provided by the Components using DOE's Scope 3 Target tool. The following table lists DHS' Total Scope 3 goal and out year estimates.

Table 8: Scope 3 GHG Reduction Goals

Agency	Total Scope 3	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15	FY 16	FY 17	FY 18	FY 19	FY 20
DHS	7.2%	0%	0.5%	1%	1.5%	2%	3%	4%	5%	6%	7%	7.2%

2) Develop and Maintain Agency Comprehensive GHG Inventory

The Department established a formal baseline (FY 2008) for determining progress towards the established reduction targets and prepared FY 2008 and FY 2010 inventories according to Federal Greenhouse Gas Accounting and Reporting Guidance. These reports were submitted to the CEQ Chair and OMB Director on January 31, 2011, in accordance with EO 13514.

DHS will submit the FY 2011 GHG inventory to the CEQ Chair and OMB Director by January 31, 2012.

b. Department lead for goal

The SSO, as the designated Department lead, will direct the activities of the Sustainability Council for target development, implementation, and oversight.

The Sustainability Council will:

- Identify and prioritize implementation methods;
- Identify and prioritize opportunities to reduce GHG emissions;
- Assess the Department's progress; and
- Engage other functional leaders, as necessary.

The Sustainability Work Group will:

- Review GHG emissions targets and other sustainability goals, and provide recommendations;
- Coordinate with CXO Committees, as necessary, to involve necessary experts, avoid duplication of effort, and communicate issues; and
- Lead discussions to seek consensus decisions on issues and recommendations.

The CXO and their Committees will:

- Coordinate activities with Committee members and evaluate progress;
- Communicate and coordinate with program managers to ensure rapid collection and dissemination of information; and
- Identify and implement projects.

The CAO will:

- Collect data for updating the Sustainability Plan; and
- Prepare reports and metrics.

The SSO, as the designated Department lead, will direct the activities of the Sustainability Council for developing and maintaining a comprehensive GHG inventory.

The Sustainability Council will provide a framework for development and evaluation of management strategies for reduction of GHG emissions and develop a long-term plan to manage the inventory process going forward.

The CAO will coordinate data and information across the Department and prepare the inventory data for submittal to OMB including annual updates.

c. Implementation methods

Below is a list of implementation methods for each category of Scope 3 GHG reduction goal:

Transmission and distribution losses:

Transmission and distribution (T&D) losses are dependent on a variety of local issues, such as the type of fuel used (e.g., coal, nuclear, natural gas) and the efficiency of the generating station. Currently, DHS energy consumption data are available only at the aggregated Component level. Accordingly, T&D losses will be evaluated at this level. Moving forward, as DHS successfully implements advanced metering and data collection infrastructure, it will be possible to estimate these losses and associated emissions at a lower, more accurate level of detail. DHS will reduce T&D losses by implementing the following short, medium, and long term initiatives.

In order to achieve this goal, DHS and its Components have developed a high level approach that includes short-term, medium-term and long-term activities/initiatives.

Short Term (FY2010-FY2012)

- DHS and Components will implement energy conservation and efficiency measures that reduce the amount of electricity required from the grid.

  Status: (Ongoing)

- CSO will identify local sources that provide CSO-needed products and can be routinely utilized in a manner consistent with laws and procurement rules. Identify security work and services that are routinely obtained from external providers and determine which can be locally provided or accomplished in-house by CSO staff with the right skill sets.

  Status: (Completed) Incorporated into CSO business practices.

- DHS and Components will meet as much of that demand as possible through on-site generation, such as:

  - Renewable energy sources, including solar, wind and biomass;
  - Alternative energy sources, such as combine heat and power, which may use conventional fuels (i.e., natural gas), but which are extremely efficient.

  Status: (Completed) Incorporated into DHS and Component business practices.

Medium Term (FY2013-FY2017)

- DHS and Components will Identify and evaluate life-cycle cost effective investments in on-site renewable generation. When implemented, these projects will increase DHS renewable compliance (on-site generation counts double toward Federal goals) and reduce grid purchased energy and associated losses and emissions.
- DHS and Components will employ Smart-grid technologies to reduce need to transport energy long distances.
- DHS and Components will develop a plan to improve T&D loss estimated based on improved available data.
- DHS and Components will evaluate use of combined heat & power technologies (e.g., distributed energy resources and combined heat and power (CHP) systems) available to help Federal agencies meet increased demand, reduce peak operating costs, and increase system-wide reliability. These technologies can increase the efficiency of the transmission system and have the potential for energy saving through T&D loss reduction.
- CSO will establish CSO protocols for locally obtained goods and for providing own work or services or contracting for same locally.

Long Term (FY2018-FY2021)

- DHS and Components will identify and execute projects and initiatives to improve T&D losses.
- CSO will implement CSO protocols for locally obtained goods, and for providing its own work or services or contracting for the same services locally.

Business Travel:

The Department and its Components will reduce and manage business travel by adopting technology to eliminate the need for travel and minimizing the impact of essential travel. Business travel will be reduced through enhanced use of technology such as teleconferencing, video-conferencing, web-based meetings and web-conferences. DHS will evaluate available tools (e.g., software and hardware) that make these virtual meetings more effective and easier to execute.

DHS will review travel approval processes to ensure that only essential travel is requested and approved. When travel is essential, DHS can implement policies to minimize the GHG impact of that travel.

DHS will develop guidance and awareness training to promote travel reduction.

DHS will reduce and manage business travel by implementing the following short, medium, and long term initiatives.

In order to achieve this goal, DHS and its Components have developed a high level approach that includes short-term, medium-term and long-term activities/initiatives.

Short Term (FY2010-FY2012)

- Each CXO and Component will review travel approval processes to ensure that only essential travel is requested and approved. When travel is essential, DHS will implement policies to minimize the GHG impact of that travel.

  Status: (Ongoing) Components are considering policies to reduce business travel (e.g., transitioning to longer work days and four-day work weeks, offering incentives to encourage vanpooling).

- CAO (Environmental Management) will develop strategies and plans for continuing the use of the GSA service through Travel Management Information Service (TMIS).

  Status: (Ongoing) A number of Components and DHS headquarters utilized the TMIS for completing the FY 2010 GHG Inventory.

- DHS and Components will develop policy and guidance that specifies preferences for lower intensity methods of travel, and work with vendors to make these options more affordable (e.g., rail travel instead of airline travel).

  Status: (Action Pending)

- CHCO and CAO will develop transit, travel, training and conferencing strategies to support low-carbon commuting by providing a baseline analysis of current teleworking/alternative work schedules (AWSs) and conferencing policies through surveys and research.

  Status: (Action Pending)

- CFO will ensure that each Component's strategy for transit, travel, training and conferences supports low-carbon commuting and travel.

  Status: (Action Pending)

- CIO will implement innovative policies to address Scope 3 emissions unique to agency operations.

  Status: (Action Pending)

- CIO will implement technologies to reduce carbon emissions related to transit, travel, training, and conferencing strategies.

  Status: (Ongoing) CIO has identified limitations in the system that prevents full use of teleconferencing capabilities on computers.

- CBP will develop Secure Portal to promote teleconferencing.

  Status: (Action Pending) New item from 2010 OSPP.

- ICE will develop guidance and awareness online training courses on travel reduction.

  Status: (Action Pending) New item from 2010 OSPP.

- S&T will review travel approval processes to ensure that only essential travel is requested and approved.

  Status: (Action Pending) New item from 2010 OSPP.

- S&T will develop policy and guidance that specifies preferences for lower intensity methods of travel, and work with vendors to make these options more affordable (e.g., rail travel instead of airline travel).

  Status: (Action Pending) New item from 2010 OSPP.

- USCG will calculate emissions from airline and rental business travel by using the GSA Travel Management Information System.

  Status: (Action Pending) New item from 2010 OSPP.

- USCG will distribute GSA developed employee surveys for commuting and teleworking.

  Status: (Action Pending) New item from 2010 OSPP.

- USCG will update current telework policies to encourage participation in telework to the fullest extent possible consistent with DHS, GSA and OPM policies.

- USCIS will develop outreach material to encourage employees to use mass transit, van services (e.g., airport shuttle) and carpooling to the greatest extent possible

- USCIS will encourage increased use of videoconferencing and explore lower carbon-emitting methods of travel.

- USCIS will encourage the use of mass transit, appropriate travel, and GHG reductions.

Medium Term (FY2013-FY2017)

- DHS and Components will develop a policy and guidance that specifies:
  - Coordinating multiple trips in a manner that allows multiple topics to be covered in one visit or for visits to multiple sites within one geographic area to be visited within a single trip;
  - When traveling, encourages employees to use mass transit, van services (e.g., airport shuttle) and car pooling to the extent possible;
  - Seek opportunities to work with vendors and encourage use of lower carbon, alternative fuels. For example, as jet fuel alternatives are developed and put into use, specify preference for airlines that use these fuels; and
  - Investigates further use of video-conferencing; lower carbon-emitting methods of travel.
- USCG will adopt technology, such as teleconferencing, video conferencing, web-based meetings, and web-conferences to reduce business travel.

Long Term (FY2018-FY2021)

<u>Contracted solid waste:</u>

The Department and its Components will work with their solid waste vendors to identify opportunities to reduce the GHG impacts of these operations. In future contracts, DHS will include specifications for mitigating these impacts. In addition, DHS will reduce emissions from solid waste contractors by internally minimizing the waste generation.

In order to achieve this goal, DHS and its Components have developed a high level approach that includes short-term, medium-term and long-term activities/initiatives.

Short Term (FY2010-FY2012)

- DHS and Components increasing recycling/composting programs, both on-site and by vendors; and

  Status: (Completed) Waste diversion metrics are now tracked in the Sustainability Plan.

- USCG will incorporate Municipal Solid Waste (MSW) data calls to major bases and calculate waste quantities and reductions as well as GHG savings based on Environmental Protection Agency (EPA) criteria.

  Status: (Action Pending) New item from 2010 OSPP.

Medium Term (FY2013-FY2017)

- DHS and Components ensure facilities optimizing collection systems and processes to reduce vehicle traffic.

Long Term (FY2018-FY2021)

- DHS and Components ensure facilities work with solid waste contractors to install landfill gas capture systems at landfills operated by contractors and seek opportunities to use the captured landfill gas for energy generation.

Employee commuting:

The Department and its Components will establish programs to encourage the use of alternative means of commuting to work rather than single car drivers. The program will include incentives for using public mass transit, car pooling, bicycling and teleworking.

In order to achieve this goal, DHS and its Components have developed a high level approach that includes short-term, medium-term and long-term activities/initiatives.

Short Term (FY2010-FY2012)

- CHCO with assistance from CAO will conduct an annual employee commuter survey.

  Status: (Completed) CHCO administered a commuter survey via a GSA web site during the dates of January 10-14, 2010. CHCO will conduct similar annual surveys to collect information associated with the commute of their employees.

- CHCO and CAO will investigate innovative policies and strategies to address Scope 3 emissions unique to agency operations by implementing and encouraging AWSs, teleworking, and live where you work programs.

  Status: (Ongoing) Policy under development.

- CIO will implement innovative policies to address Scope 3 emissions unique to agency operations.

  Status: (Action Pending) New item.

- CIO will implement technologies to reduce carbon emissions related to transit, travel, training, and conferencing strategies.

  Status: (Action Pending) New item.

- SSO will incentivize employee use of teleworking, mass transit, bicycling, and walking, while locating facilities to reduce their transportation impacts.

  Status: DHS is increasing employee incentives for teleworking, AWS programs, use of alternative transportation to and from work, and the locating of facilities to reduce their transportation impacts. The mass transit benefit program is an incentive offered and used throughout DHS. Additionally, CAO is ensuring that EO 13514 siting recommendations issued by OMB are adopted into DHS policy and guidance.

- CAO will ensure new construction and major renovation projects include locating secure storage for bicycles inside buildings and the installation of proper facilities to support commuting via bicycle, where needed, feasible, and cost-effective.

  Status: (Completed) Incorporated into the Facilities Design and Construction Guidance Manual currently under development.

Medium Term (FY2013-FY2017)

- SSO will direct the investigations to develop and implement live where you work programs in conjunction with telework, to encourage DHS employees to live in communities and neighborhoods surrounding DHS work sites. Provide incentives for employees to move into surrounding communities from which it is close enough to walk or take public transit to work.
- S&T will investigate the development of a dedicated tool for coordinating rideshares between employees.
- S&T will evaluate AWSs, to decrease weekly commute miles.

Long Term (FY2018-FY2021)

- DHS and Components will establish policy and guidance to site or locate facilities:
  - In areas where Vehicle Miles Traveled (VMT) correlates inversely to residential density; the greater the density, the fewer miles traveled Neighborhood structure and mix of uses are also contributing factors. To limit individual automobile commuting, the majority of DHS facilities—except those limited by strategic and security concerns, such as border

stations—should be located near transit stops in more urban areas of America's low VMT cities; current and future DHS facilities are located near transit stops in more urban areas of America's low VMT cities;
    - Where they are an integrated part of the community, where possible and achieving this objective will not inhibit DHS' security mission;
    - Within existing communities and neighborhoods of low VMT cities, where possible and achieving this objective will not inhibit DHS' security mission; and
    - In existing communities provide porous and activated facades along sidewalks that welcome pedestrian traffic.
- USCIS will review the latest alternative transportation methods and incorporate them into leased facility designs, where appropriate.

Wastewater Treatment:

The Department and its Components will strive to reduce wastewater discharges through water reduction strategies listed under Goal 4 of the Sustainability Plan.

DHS will accurately and consistently quantify and account for GHG emissions from all Scope 1, 2, and 3 sources, using OMB accepted GHG accounting and reporting principles and tools. Components will provide the data to DHS for roll-up to a Department-wide inventory. In instances where the OMB accepted accounting and reporting is not feasible, DHS will provide the information using alternative means and fully describe the process to OMB.

d. Positions

At the Department level there are no positions dedicated solely to the reduction of Scope 3 GHG emissions. The Environmental Manager and Energy Manager with support from other CXOs, in addition to their other tasks, will perform the tasks necessary to reduce Scope 3 GHG emissions.

At the Department level there are no positions dedicated solely to the completing and updating the GHG emission inventory. The Environmental Manager, Energy Manager, Fleet Manager and Real Property, in addition to their other tasks, will perform the tasks to complete and update the inventory.

DHS Components:

- At NPPD, CBP, ICE, S&T, TSA, USCG, USCIS, and USSS: There are no positions dedicated solely to the reduction of Scope 3 GHG emissions or for completing and updating the GHG emission inventory. The responsibility to address these requirements is shared amongst several organizations, all of whom in FY11 will leverage existing resources to provide the level of support required. Execution of this requirement will be through reassignment of existing federal employees or contract support. For CBP in FY12, FTEs will be created to replace diverted FTEs during FY11.

- FEMA: At this time, it is not possible to accurately determine the total number of positions/resources dedicated to this goal. FEMA will work with DHS to develop a procedure to report positions and resources associated with this goal by the end of FY11.

e. Planning table

The following planning table was completed based on input provided by the Components in their OSPPs and FEMP's Annual GHG and Sustainability Data Reports, among other sources.

Table 9: Scope 3 Target

SCOPE 3 GHG TARGET	Units	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15	…	FY 20
Total Scope 3 GHG Emissions (Comprehensive)	MMT CO2e	1,602,912.6	1,335,553.18	1,328,841.86	1,322,130.53	1,315,419.21	1,301,996.57	…	1,245,621.46
Total Scope 3 GHG Emissions (Subject to Agency Scope 3 GHG Reduction Target)	MMT CO2e	1,600,161.1	1,332,621.91	1,325,925.32	1,319,228.72	1,312,532.13	1,299,138.95	…	1,242,887.57
Overall Agency Scope 3 Reduction (reduced from FY08 base year)	%	0	0.5	1	1.5	2	3	…	7.2

f. Department status

1) Scope 3 GHG Reductions

The Department is updating Directive 025-01 *Sustainable Practices for Environmental, Energy and Transportation Management* to reflect the requirements set forth by EO 13514 and has established policy for reducing Scope 3 GHG emissions. Currently, the Directive incorporates GHG reduction policy through the following programs:

- Procurement programs to purchase bio-based, environmentally preferable, and recycled-content products and paper (at least 30 percent post-consumer fiber content) programs; and

- Programs to ensure that the Department reduces the quantity of toxic and hazardous chemicals and materials acquired, used, or disposed, increases the diversion of solid waste as appropriate, and maintains cost-effective waste prevention and recycling programs at its facilities.

As part of a CIO initiative to implement technologies to reduce carbon emissions related to transit, travel, training, and conferencing strategies, OCIO is developing solutions to increase Telework, including VTC with multiple simultaneous locations, Live Meeting and Sharepoint collaboration capabilities.

2) Develop and Maintain Agency Comprehensive GHG Inventory

The Department established a formal baseline (FY 2008) for determining progress towards the Scope 1, 2 and 3 reduction targets and reported the FY 2008 and FY 2010 inventories to the CEQ Chair and OMB Director in January 31, 2011. The FY 2008 and FY 2010 reports were prepared according to Federal Greenhouse Gas Accounting and Reporting Guidance.

The Department's FY 2008 base year and FY 2010 reports included emissions from the following sources:

- Operation of mobile sources for which DHS purchases fuel;
- Fleet operations;
- Facility energy related to the operation of facilities for which DHS directly pays energy bills; and
- All other emissions from activities over which FEMA has authority to implement operating policies associated with the activity or process, not including FEMA's disaster response activities.

Data was collected through a formal data call to the sustainability points of contact at each of DHS' Components. Components in turn worked with their staff at facilities and within their specific lines of business to collect the necessary data. Most of the data collected was obtain from energy bills and databases [e.g., FAST, GSA Travel MIS (TravelTrax)]. When estimates were used, assumptions and calculation were documented. In addition, DHS conducted a Department-wide survey to collect data associated with the commute of their employees. Using the survey results, DHS estimated the Department's total Scope 3 emissions associated with associated with employee commuting.

The Department used a third-party verification process. DHS contracted an evaluator accredited by the California Air Resource Board as a GHG verifier completely independent of the DHS staff involved in reporting DHS' GHG emissions inventory.

The tables below provide numeric comparison between 2008 and 2010, starting with GHG emissions subject to the GHG target (Table 10 and 11), then showing total GHG emissions including both target and non-target categories (Table 12 and 13).

Table 10: DHS 2008 to 2010 Changes in GHG Target Subject Emissions, Breakdown by Scope

Scope and Category	2008 Total Quantity Emitted GHG Target Subject (MT CO2e)	2010 Total Quantity Emitted GHG Target Subject (MT CO2e)	Percent Change
Subtotal Scope 1 & 2	767,577.2	663,241.4	-13.59%
Subtotal Scope 3	1,339,318.5	1,600,161.1	19.48%
Total	2,106,895.7	2,263,402.6	7.43%

Table 11: DHS 2008 to 2010 Changes in GHG Target Subject Emissions, Detailed Breakdown

Scope and Category	2008 Total Quantity Emitted GHG Target Subject (MT CO2e)	2010 Total Quantity Emitted GHG Target Subject (MT CO2e)	Percent Change
Scope 1: Stationary Combustion: EISA 2007 Goal Subject and Excluded Building Energy Consumption	130,751.2	131,347.3	0.46%
Scope 1 Mobile Emissions: Vehicles and Equipment	8,374.2	9,277.3	10.78%
Scope 1 Mobile Emissions: FAST	188,094.6	125,047.9	-33.52%
Scope 1 Fugitive Emissions: Fugitive Fluorinated Gases and Other Fugitive Emissions	336.7	202.5	-39.88%
Scope 1 Fugitive Emissions: On-site Wastewater Treatment***	118.6	119.1	0.40%
Scope 1 Fugitive Emissions: On-site Landfills and MSW Facilities***	0.0	0.0	0.00%
Scope 1: Industrial Process Emissions By Process	0.0	0.0	0.00%
Scope 2: Purchased Electricity Consumption	446,252.7	436,180.1	-2.26%
Scope 2: Purchased Renewable Energy Biomass Emissions	0.0	238.7	No Baseline
Scope 2 Indirect Emissions: Purchased Steam and Hot Water (Includes T&D Losses)	2,368.6	3,066.4	29.46%
Scope 2 Indirect Emissions: Purchased Chilled Water (Includes T&D Losses)	0.0	0.0	0.00%
Scope 2: Indirect Emissions: Purchased CHP Electricity, Steam & Hot Water	0.0	0.0	0.00%
Scope 2: Reductions from Renewable Energy Use	-8,719.5	-42,237.7	384.40%
Scope 3: Transmission and Distribution Losses	29,395.2	28,731.7	-2.26%

Scope and Category	2008 Total Quantity Emitted GHG Target Subject (MT CO2e)	2010 Total Quantity Emitted GHG Target Subject (MT CO2e)	Percent Change
Scope 3: Biomass Generated with No RECs	0.0	0.0	0.00%
Scope 3: Federal Employee Business Air Travel**	514,944.4	659,260.3	28.03%
Scope 3: Federal Employee Business Ground Travel***	139,024.8	219,275.4	57.72%
Scope 3: Federal Employee Commuting***	613,698.2	649,103.9	5.77%
Scope 3: Contracted Wastewater Treatment***	592.8	616.4	3.97%
Scope 3: Contracted MSW Disposal***	41,663.1	43,173.5	3.63%
Scope 3: Renewable Energy Generated with No RECs	0.0	0.0	0.00%

Table 12: DHS 2008 to 2010 Changes in Total GHG Emissions, Breakdown by Scope

Scope and Category	2008 Total Quantity Emitted (MT CO2e)	2010 Total Quantity Emitted (MT CO2e)	Percent Change
Subtotal Scope 1 & 2	1,692,158.0	1,717,333.5	1.49%
Subtotal Scope 3	1,342,264.5	1,602,912.6	19.42%
Total	3,034,422.5	3,320,246.2	9.42%

Table 13: DHS 2008 to 2010 Changes in Total GHG Emissions, Detailed Breakdown

Scope and Category	2008 Total Quantity Emitted (MT CO2e)	2010 Total Quantity Emitted (MT CO2e)	Percent Change
Scope 1: Stationary Combustion: EISA 2007 Goal Subject and Excluded Building Energy Consumption	130,751.2	131,347.3	0.46%
Scope 1 Mobile Emissions: Vehicles and Equipment	774,451.5	705,702.2	-8.88%
Scope 1 Mobile Emissions: FAST	301,705.3	440,774.5	46.09%
Scope 1 Fugitive Emissions: Fugitive Fluorinated Gases and Other Fugitive Emissions	506.4	372.1	-26.52%
Scope 1 Fugitive Emissions: On-site Wastewater Treatment***	118.6	119.1	0.40%
Scope 1 Fugitive Emissions: On-site Landfills and MSW Facilities***	0.0	0.0	0.00%

Scope and Category	2008 Total Quantity Emitted (MT CO2e)	2010 Total Quantity Emitted (MT CO2e)	Percent Change
Scope 1: Industrial Process Emissions By Process	0.0	0.0	0.00%
Scope 2: Purchased Electricity Consumption	490,975.9	477,951.1	-2.65%
Scope 2: Purchased Renewable Energy Biomass Emissions	0.0	238.7	No Baseline
Scope 2 Indirect Emissions: Purchased Steam and Hot Water (Includes T&D Losses)	2,368.6	3,066.4	29.46%
Scope 2 Indirect Emissions: Purchased Chilled Water (Includes T&D Losses)	0.0	0.0	0.00%
Scope 2: Indirect Emissions: Purchased CHP Electricity, Steam & Hot Water	0.0	0.0	0.00%
Scope 2: Reductions from Renewable Energy Use	-8,719.5	-42,237.7	384.40%
Scope 3: Transmission and Distribution Losses	32,341.2	31,483.2	-2.65%
Scope 3: Biomass Generated with No RECs	0.0	0.0	0.00%
Scope 3: Federal Employee Business Air Travel**	514,944.4	659,260.3	28.03%
Scope 3: Federal Employee Business Ground Travel***	139,024.8	219,275.4	57.72%
Scope 3: Federal Employee Commuting***	613,698.2	649,103.9	5.77%
Scope 3: Contracted Wastewater Treatment***	592.8	616.4	3.97%
Scope 3: Contracted MSW Disposal***	41,663.1	43,173.5	3.63%
Scope 3: Renewable Energy Generated with No RECs	0.0	0.0	0.00%

g. Return on investment

No projects have been cancelled or suspended due to a lower than expected ROI. The Department continues to strongly encourage the use of ESPC and UESC as a way of implementing energy and water projects without direct appropriation. These projects are typically rated in terms of number of years and payback.

h. Highlights

DHS administered a commuter survey of its employees consistent with the Federal Greenhouse Gas Accounting and Reporting Guidance Technical Document dated 6 Oct 2010. The survey was transmitted through GSA to a sample size of 23,644 out of DHS' total employee population of 191,928 people. Approximately 40% of the sample responded to the survey, 9,500 people, representing 5% of the total DHS population. The sample also represented a large proportion of DHS facilities across the country. Using the survey results, DHS estimated the Department's total Scope 3 emissions

associated with associated with employee commuting. In addition, DHS conducted additional analysis to determine results by Components and to identify opportunities for reducing scope 3 commuting GHG emissions.

DHS is increasing employee incentives for teleworking, AWS programs, use of alternative transportation to and from work, and the locating of facilities to reduce their transportation impacts. The mass transit benefit program is an incentive offered and used throughout DHS. According to the 2011 GSA Employee Commuter Survey, approximately 26% of DHS employees use the mass transit benefit program. AWS programs are offered to many DHS employees. According to the commuter survey, approximately 28% of DHS employees use flexible work hours (flextime) and 23% of DHS employees use the compressed work week option. DHS has a large percentage of employees not eligible for teleworking due to their physical presence needed in supporting critical systems and processes, such as safety and security functions. However, the number of eligible employees teleworking 1 or more times per week is increasing. In 2011, according to the commuter survey, 10% of DHS employees teleworked at least 1 day per week. Incentives for bicycling and walking (e.g., showers and bike storage) are offered at some DHS office locations but are less common. DHS is pursuing official policy and guidance that the majority of DHS facilities, except those limited by strategic and security concerns should be located near transit stops in more urban areas of America's low VMT cities.

DHS Component Successes:

- CAO established an aggressive telework program for its employees. Employees share cubicles and telework 3 or more days per week. As a result, the office work space was reduced by 50%. This freed up space for another DHS Headquarters to occupy the vacated space rather than seek a new lease from GSA.

- FLETC completed a telework experiment in September 2009 to identify the number and types of jobs at the FLETC that can be done by teleworkers.

- FEMA implemented a "Virtual Guard" security system removing the need for security personnel at specific locations resulting in a reduction of GHG reductions related to commuting along with a financial savings of more than $1.4 million.

- CBP's Telework Program is a vital part of its daily operations, supporting the Continuity of Operations Plan, as well as an important method for doing business. 75% of CBP Program Offices are participating in the Telework Program. CBP has received more than 1450 approved telework arrangements representing 17 percent of CBP's eligible workforce. The Office of Personnel Management (OPM) has reported that the total number of CBP employees who are on core telework arrangements has tripled since 2009. More than 4150 supervisors and managers have taken the online OPM Telework 101 Training for Managers.

- CBP has invested more than $6 M in 300 videoconferencing systems located throughout the inventory of CBP owned and leased assets. CBP is developing an easily identifiable page on the CBPsecure portal to host information on the location and use of these systems. It is evaluating policies to require the use of videoconferencing under certain conditions. CBP uses the ROI model and GHG estimating tools on Polycom.com to evaluate impacts.

- NPPD developed a Telework Policy that allows eligible employees to work from home, helping to limit GHG emissions from commuting activities.

DHS Component Challenges:

- For CBP, meeting GHG targets will be a challenge since a large part of its CBP fleet is LE vehicles that are not easily substituted with fuel efficient or AFVs. Also the lack of an alternative fueling infrastructure impedes the use of these vehicles

- For USSS, fulfilling its unique mission while meeting GHG emissions reduction targets is challenging since the vast majority of its fleet is used for protective services/LE and is exempt from the GHG reduction requirements.

3. GOAL 3: High-Performance Sustainable Design / Green Buildings & Regional and Local Planning

a. Goal description

1) High-Performance Sustainable Design/Green Buildings

The Department is committed to achieving the following high-performance sustainable design/green building goals:

a) Beginning in FY 2020, all new Federal buildings are to be designed to achieve zero-net energy by FY 2030.

b) Comply with the, "Guiding Principles for Federal Leadership in High Performance and Sustainable Buildings (Guiding Principles)," in all new construction, major renovation or repair and alteration of Federal buildings.

c) At least 15% of the Department's existing government-owned buildings, direct-leased buildings, delegated authority leased buildings, and Federal Real Property Profile (FRPP)-reported leased buildings will meet Guiding Principles by FY 2015 [5,000 GSF threshold for existing buildings and building leases].

d) Demonstrate annual progress towards achieving 100% conformance with Guiding Principles for the entire building inventory by 2015 and thereafter.

e) Incorporate sustainable practices into the Department's policy and planning for new Federal facilities and leases, and into lease renewal strategies.

f) Use cost-effective, innovative building and sustainable landscape strategies to minimize energy, water and materials consumption.

g) Operate, 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.

h) Optimize performance of the Department's real property portfolio by disposing and consolidating excess and underutilized property, co-locating field offices, and consolidating across metropolitan and regional locations.

i) Reduce need for new building and field office space by utilizing technologies to increase telework opportunities and expanding delivery of services (over the internet or electronically).

j) Conserve, rehabilitate, and reuse historic Federal properties by using current best practices and technology.

k) Align Department space management actions (e.g., new leases, new construction, and consolidation) with Scope 1, 2 and 3 GHG reduction targets.

2) Regional and Local Planning

The Department is committed to achieving the following regional and local planning goals:

a) Incorporate consultation with local and metropolitan planning organizations regarding the impact, or potential impact, of Federal actions on local transportation infrastructure and local development plans into existing policy and guidance.

b) Align Department policies to increase the effectiveness of local planning efforts regarding transportation, energy resources and the environment.

c) Increase the effectiveness of regional measures that enhance integrity of local ecosystems and watersheds.

d) Update agency policy and guidance to ensure that all EISs and EAs required under the NEPA for proposed new or expanded Federal facilities, as appropriate, identify and analyze impacts associated with energy (including alternative energy sources), as well as climate change.

e) Integrate methods and practices into DHS master planning documents to help achieve the goals of the Sustainability Plan.

f) Update Department policy and guidance to ensure coordination and (where appropriate) consultation with Federal, State, Tribal and local management authorities regarding impacts to local ecosystems, watersheds and environmental management associated with proposed new or expanded Federal facilities.

g) Participate in critical local and regional efforts and initiatives.

b. Department lead for goal

The SSO, as the designated Department lead, will direct the activities of the Sustainability Council for target development, implementation and oversight. The CAO has the primary responsibility for developing the policy, guidance and tools for policy, guidance, metrics, tracking and reporting.

c. *Implementation methods*

CAO (Real Property) will ensure that policy and procedures exist to incorporate sustainability-related issues into lease agreements and occupancy agreements to enable faster dissemination and implementation of the EO and other sustainability initiatives.

CAO will develop an inventory of land and rooftop areas that can be used for land-intensive, alternative energy sources like solar, biofuels, geothermal, and wind. These installations can often be cost competitive and implemented with minimal upfront capital through lease arrangements on land or facilities already owned by DHS.

CAO will identify additional opportunities appropriate to local conditions, such as availability of local natural resources, local utility rates, and other local factors. CAO will also periodically reevaluate opportunities as the price for these technologies trend downward.

CAO (Real Property) leads an initiative to consolidate and co-locate real property across the Department. This initiative enables consolidating or co-locating Department and Component offices or functions into one facility rather than separate facilities. Moving forward with this initiative should result in decreasing the overall footprint of the Department's real property, gain efficiencies through shared facility resources and reduce GHG emissions. The Asset Management Plan (AMP) contains details of this initiative. In addition, sustainable building practices that help achieve the requirements of these goals have been incorporated in the Sustainable Building Design Manual.

CHCO working with CAO will develop cost effective programs to promote employee use of teleworking, mass transit, bicycling, and walking, while locating facilities to reduce their transportation impacts.

CHCO will investigate "live where you work" programs in conjunction with telework and AWS programs, and provide incentives to encourage DHS employees to live in communities and neighborhoods surrounding DHS work sites.

1) High-Performance Sustainable Design/Green Buildings

In order to achieve this goal, DHS and its Components have developed a high level approach that includes short-term, medium-term and long-term activities/initiatives.

Short Term (FY2010-FY2012)

- CAO (Energy Management) will establish processes for evaluating opportunities to implement renewable and clean energy opportunities using land and facilities available to DHS.

  Status: (Ongoing) Part of the Renewable Energy Optimization Study.

- CAO (Energy Management) will develop a department-wide goal of a specific percentage of energy consumption that must come from renewable energy.

  Status: (Completed) The percentage of energy from renewable energy sources has been set at 7%.

- CAO (Environmental Management) will develop a sustainable practice guidance manual that will include Sustainability requirements and recommendations.

  Status: (Ongoing) Currently developing the 'Sustainable Practices Directive Guidance Manual', as authorized by Departmental Directive 025-01 01to establish guidance and assist the Department and its Components in achieving sustainability and natural resources stewardship goals.

- CAO (Environmental Management) will develop policy and guidance that new construction and major renovation be designed to at least the US Green Building Council (USGBC) LEED® Silver Standard.

  Status: (Ongoing) Policy implications under evaluation.

- CAO (Environmental Management and Real Property) and Components will develop specific percentage targets to measure compliance with the 15 percent goal for High Performance Buildings.

  Status: (Completed) DHS does not anticipate achieving the goal that 15% of its facilities will be sustainable by 2015. The targets established show an anticipated percentage based on future funding for construction.

- CAO (Real Property) and Components will update the planning table for this goal.

  Status: (Completed) The planning table was updated. Targets were established for total facilities (not leased and owned facilities). DHS anticipates achieving targets through a variety of means, such as consolidating facilities, vacating non-sustainable leased facilities and replacing existing facilities with new sustainable construction and new leases.

- CAO (Asset Logistics Management) will develop a Facility Design and Construction Guidance Manual that will include sustainability requirements and recommendations.

  Status: (Ongoing) Facilities Design and Construction Guidance Manual is under development with completion targeted for Q4 FY 2011.

- CFO will ensure that Level 1 and 2 acquisitions capital and operating projects that affect energy or water usage are subject to lifecycle cost assessments.

  Status: (Action Pending)

- CFO will ensure that all Lifecycle Cost Estimates submitted during a Level 1, 2, or 3 acquisition include a calculation for the ROI for any sustainability efforts included as part of the acquisition. This will help ensure higher upfront costs for sustainable solutions are not eliminated during the budgeting process when they could have beneficial budgetary effects in future years.

  Status: (Action Pending)

- CFO will ensure that Components identify alternatives to renovation that reduce deferred maintenance costs for existing assets. Include these in the formal Analysis of Alternatives developed during acquisition planning.

  Status: (Action Pending)

- CHCO will implement and encourage AWSs, teleworking, and live where you work programs.

  Status: (Ongoing) CHCO convened a cross-Department Telework Council on March 30, 2011 to implement the provisions of the Telework Enhancement Act of 2010, which has as its goal increased telework among federal employees.

- CHCO will develop transit, travel, training and conferencing strategies to support low-carbon commuting by providing a baseline analysis of current teleworking/AWSs and conferencing policies through surveys and research.

  Status: (Ongoing) CHCO is developing policies and strategies to address Scope 3 emissions unique to agency operations by implementing and encouraging AWSs, teleworking, and live where you work programs. (Refer to Goal 2).

- CAO will establish and implement criteria to prioritize buildings for retrofit, replacement, or consolidation;

  Status: (Ongoing) A DST is under development and beta testing at Components is ongoing. The tool allows Components the ability to prioritize projects by performance criteria.

- CAO (Real Property) will work with GSA to develop standardized leasing requirements that incorporate the elements of sustainability, and provide status updates on metrics to DHS.

  Status: (Ongoing) Sustainability provisions are contained in the current GSA SFO. GSA has formed a WG to address more specific criteria for inclusion in the SFO.

- ICE will review and revise real property acquisition and development process maps to include a sustainability review of each project.

  Status: (Action Pending) New item from 2010 OSPP.

- NPPD will work with GSA to incorporate sustainable standards into its facility leases.

  Status: (Action Pending) New item from 2010 OSPP.

- TSA will lease space that meets the requirements of the Guiding Principles when the opportunity to sign new leases becomes available.

  Status: (Action Pending) New item from 2010 OSPP.

- S&T will ensure that level 1 and 2 acquisitions, capital and operating projects that affect energy or water usage are subject to lifecycle cost assessments.

Status: (Action Pending) New item from 2010 OSPP.

- USCIS will continue to utilize blanket purchase agreements for acquisition of sustainable and environmentally preferable furniture and case goods.

  Status: (Action Pending) New item from 2010 OSPP.

Medium Term (FY2013-FY2017)

- CAO will develop a plan for performance assessment and measurement that includes a plan for benchmarking, long-term monitoring, and verification of savings.
- CAO (Energy Management) will establish a process to ensure that retro-commissioned DHS facilities are operating at the highest levels of efficiency currently possible.
- CAO will develop guidance and policy for employees engaged in facility maintenance, design, construction, and property management to complete recognized LEED® training courses and determine if senior-level employees within these career fields should achieve some level of LEED® Accredited Professionals (LEED® AP).
- The CAO will develop a system for reporting individual project progress toward addressing the Guiding Principles in the following building life cycle stages:
- This system will specify how progress to the goal of 15 percent compliant buildings will be tracked and assign roles, responsibilities, and authorities for:
    - Siting;
    - Design;
    - Construction;
    - Operations & maintenance;
    - Renovation; and
    - End-of-life.
- CBP will complete an assessment of owned facilities to determine the level of investment necessary to bring them into compliance with the Guiding Principles.
- ICE will develop strategy for assessing projects for sustainability ROI and incorporate in prioritization scheme.
- NPPD will establish and implement sustainability criteria to prioritize lease replacement or consolidation.
- NPPD will support the DHS CAO (Real Property) work with GSA and others to develop standardized leasing requirements that incorporate the elements of sustainability, and provide status updates on metrics to DHS.
- TSA will work with the owner of the leased HQ building to identify opportunities to make High Performance sustainable upgrades when practicable.
- S&T (National Urban Security Technology Laboratory) will utilize DHS/GSA developed standardized leasing requirements that incorporate the elements of sustainability, and provide status updates on metrics to DHS.
- USCIS will continue to implement criteria to prioritize buildings for retrofit, replacement, or consolidation.

Long Term (FY2018-FY2021)

- DHS and Components will identify sites for the construction of large-scale renewable energy facilities that will help the department accomplish its mission with a more reliable and secure energy supply.
- CFO will establish processes to ensure that level 3 acquisitions capital and operating projects that affect energy or water usage are subject to lifecycle cost assessments.
- CSO will integrate and balance sustainable design issues with Force Protection measures necessary to protect our facilities and infrastructure.
- SSO will strive to ensure that sustainability will be incorporated into the interagency security standards guidance to ensure appropriate measures to secure federal facilities rather than treating this as a separate program.
- NPPD will measure all projects against a "Zero Net Energy" Plan, and make revisions to the plan where applicable.
- S&T will incorporate DHS-developed processes to ensure that Level 3 acquisitions capital and operating projects that impact energy or water usage are subject to lifecycle cost assessments.

2) Regional and Local Planning

In order to achieve this goal, DHS and its Components have developed a high level approach that includes short-term, medium-term and long-term activities/initiatives.

Short Term (FY2010-FY2012)

- CAO working with CHCO will examine and implement cost effective programs to incent employee use of teleworking, mass transit, bicycling, and walking, while locating facilities to reduce their transportation impacts. Vehicle Miles Traveled (VMT) correlates inversely to residential density; the greater the density, the fewer miles traveled. Neighborhood structure and mix of uses are also contributing factors. To limit individual automobile commuting, the majority of DHS facilities, except those limited by strategic and security concerns (e.g., border stations), should be located near transit stops in more urban areas of America's low VMT cities.

  Status: (Completed) CHCO convened a cross-Department Telework Council on March 30, 2011 to implement the provisions of the Telework Enhancement Act of 2010, which has as its goal increased telework among federal employees.

- CAO will ensure that EO 13514 siting recommendations issued by OMB are adopted into DHS policy and guidance.

  Status: (Completed) Draft EO 13514 siting recommendations from OMB have been incorporated into the draft Facilities Design and Construction Guidance Manual.

- CAO will ensure that DHS policy and guidance include the following:

    - Locating secure storage for bicycles inside buildings and install proper facilities to support commuting via bicycle, where needed, feasible, and cost-effective;
    - Locating facilities near transit stops;
    - Ensuing facilities are an integrated part of the community, where possible and achieving this objective will not inhibit DHS' security mission;
    - Locating offices and facilities within existing communities and neighborhoods of low VMT cities, where possible and achieving this objective will not inhibit DHS' security mission;
    - Designing buildings in existing communities that would provide porous and activated facades along sidewalks that welcomes pedestrian traffic, where possible and achieving this objective will not inhibit DHS' security mission; and
    - Building location and design uses a matrix similar to the following one to evaluate site choices.

More Sustainable	Less Sustainable
In a low-VMT city	In a high-VMT city
In an existing neighborhood	In a planned neighborhood or subdivision
In a dense urban neighborhood	In a low density, suburban or rural neighborhood
Well served by transit	Badly served by transit
In a historic building	In a more recent building
In a pre-existing building	In a new building
In a building with friendly open edges	In a building with unfriendly closed edges
With bicycle storage	Without bicycle storage

  Status: (Completed) Items were incorporated into the draft Facilities Design and Construction Guidance Manual.

- CBP will develop an electronic database of existing environmental mitigation commitments and current obligations; design a notification system which will support efforts for prompt compliance; maintain a repository of environmental planning compliance activities that will facilitate annual reporting requirements.

  Status: (Action Pending) New item from 2010 OSPP.

- CBP will develop a comprehensive electronic database of existing and legacy environmental planning documentation to improve efficiency, lower cost, expedite delivery, and aid in coordination among CBP components.

  Status: (Action Pending) New item from 2010 OSPP.

- NPPD will work with GSA to ensure consideration of the following when obtaining space: locating secure storage for bicycles to support commuting; locating facilities near transit along with other ways to ensure sustainable practices.

  Status: (Action Pending) New item from 2010 OSPP.

- S&T will examine and implement cost effective programs to incentivize employee use of teleworking, mass transit, bicycling, and walking, while locating facilities to reduce their transportation impacts.

  Status: (Action Pending) New item from 2010 OSPP.

- USCIS will ensure that EO 13514 siting recommendations issued by the Department are adopted into USCIS policy and guidance.

  Status: (Action Pending) New item from 2010 OSPP.

Medium Term (FY2013-FY2017)

- CHCO will investigate "live where you work" programs in conjunction with telework, to encourage DHS employees to live in communities and neighborhoods surrounding DHS work sites. Provide incentives for employees to move into surrounding communities from which it is close enough to walk or take public transit to work.
- CBP will continue collocation studies with USCG; identify opportunities to reduce its geographic footprint; conduct ROI analysis on collocation; and incorporate into facility planning documents.
- NPPD will follow the Department's guidance for implementing cost effective programs to encourage employee use of teleworking, mass transit, carpooling, bicycling, and walking, while locating facilities to reduce their transportation impacts.
- NPPD will support "live where you work" programs developed by the Department in conjunction with telework.

Long Term (FY2018-FY2021)

- DHS will encourage its Components to consider the acquisition and use of historic buildings in central business districts. Additionally, Components will consider the use of both developed and undeveloped sites within historic districts if historic property within the central business district is not available.
- NPPD will work with GSA and others to ensure consideration of the acquisition and use of historic buildings in central business districts when providing space for NPPD.
- S&T will consider the acquisition and use of historic buildings in central business districts where such buildings might meet S&T requirements. Consider the use of both developed and undeveloped sites within historic districts if historic property within the central business district is not available.

d. Positions

At the Department level there are no positions dedicated solely to sustainable buildings. The Environmental Manager, Energy Manager, and Real Property, in addition to their other tasks, manage the initiatives and requirements for sustainable buildings.

DHS Components:

- At NPPD, CBP, FLETC, ICE, S&T, TSA, USCIS, and USSS: There are currently no full time positions dedicated to developing high performance sustainable design/green buildings and regional and local planning. The responsibility to address these requirements is shared among several organizations, all of whom in FY11 will leverage existing resources to provide the level of support required. In FY12, CBP will create FTEs to replace those diverted during FY11.

- For S&T, sustainability initiatives are the responsibility of existing CAO and Office of National Laboratories (ONL) staff. S&T is examining its need for additional positions and will request them in future budgets, if they are needed. S&T does not have any positions designated for regional and local planning. These initiatives fall to the existing ESH and management staff. Each S&T construction project is staffed by a Project Manager, who coordinates appropriate regional and local planning. CAO reviews projects for NEPA compliance. S&T is examining its need for additional positions and will request them in future budgets, if they are needed.

- For TSA, existing Office of Field Real Estate Services (OFRES) and Office of Building and Management Services (OBMS) staff will evaluate opportunities to place TSA operations in space that meets the Guiding Principles standard as opportunities arise. Existing OSHE staff and contractor support will assist OFRES or OBMS, when required. Existing OFRES and OBMS staff along with OSHE staff and contractor support will support regional and local planning initiatives.

- FEMA: At this time, it is not possible to accurately determine the total amount of positions/resources dedicated to this goal. FEMA will work with DHS to develop a procedure to report positions and resources associated with this goal by the end of FY11.

- USCG: To comply with the high performance sustainable design/green buildings goal, the Coast Guard will need resources to: (1) Perform sustainability assessments on its building inventory – a LEED accredited professional using an industry accepted sustainability building assessment tool; (2) Update the modernization dashboard and the Shore Asset Management System to reflect elements of sustainability (i.e. energy consumption per gross square footage) – a program analyst, or team of analysts; and (3) Perform reviews on construction and renovations projects to determine the status for meeting the Guiding Principles requirement – this may involve just modifying (or adding to) an

additional step in the construction review process, and not necessarily a person. The Coast Guard will require concentrated effort in updating and revising related Commandant's Instructions Manual to achieve EO 13514 goals and objectives. SILC will need to create and institutionalize Field Process Guides to implement initiatives on the ground. It requires both human and funding resources.

e. Planning table

The following planning table was completed based on input provided by the Components in their OSPPs and FEMP's Annual GHG and Sustainability Data Reports among other sources.

Table 14: DHS Sustainable High Performance Buildings

SUSTAINABLE HIGH PERFORMANCE BUILDINGS (Buildings Meeting Guiding Principles)	Units	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15	…	FY 20
Owned Buildings	%	0.1	0.5	1	2	6	15	…	hold
FRPP-Reported Leased Buildings	%	n/a	TBD	TBD	TBD	TBD	TBD	…	TBD
Total Buildings	%	0.1	0.5	1	2	6	15	…	Hold
REGIONAL AND LOCAL PLANNING	**Units**	**FY 10**	**FY 11**	**FY 12**	**FY 13**	**FY 14**	**FY 15**	**…**	**FY 20**
Other, as defined by agency	n/a	n/a	n/a	n/a	n/a	n/a	n/a	..	n/a

Note: Targets were only established for facilities.

f. Department status

The Department is updating Directive 025-01 *Sustainable Practices for Environmental, Energy, and Transportation Management* to reflect the "High-Performance Sustainable Design / Green Buildings" and "Regional and Local Planning" requirements set forth by EO 13514. Directive 025-01 currently establishes policy for new construction, major renovation, and leases to comply with the Guiding Principles for Federal Leadership in High Performance and Sustainable Buildings and when direct leasing or leasing through the GSA, that DHS requests space that meets these principles.

The Department tracks Component progress towards achieving these goals through internal quarterly scorecards to demonstrate annual progress toward achieving 100% conformance with Guiding Principles for the entire building inventory by 2015 and ensuring that 15% of existing buildings are sustainable by 2015.

Approximately 95% of new building designs meet the requirements for Federal Building Energy Efficiency Standards by being 30% below ANSI/ASHRAE/IESNA Standard 901-2004, or by achieving the maximum level of cost-effective energy efficiency. Most of the remaining buildings are still in design phases and their maximum cost-effective energy efficiency is still to be determined.

The Department is finalizing the Design and Construction Guidance Manual that will include sustainability requirements and recommendations (completion targeted for Q4 FY11).

The CAO Real Property AMP was modified to include sustainable building practices. DHS is developing a facility condition DST that is currently in the beta testing stage. This system will allow Components the ability to prioritize projects by performance criteria.

DHS and its Components participated in EO 13514 Siting Work Group meetings and assisted in developing draft siting recommendations for OMB review. This draft document was forwarded to OMB and CEQ for review and issuance. DHS also participates in a Chesapeake Bay Committee and work group to oversee the development and coordination of programs and activities, including data management and reporting for the protection and restoration of the Chesapeake Bay. This Committee manages the development and implementation of strategies and program plans for the watershed and ecosystem of the Chesapeake Bay.

g. Return on investment

No projects have been cancelled or suspended due to a lower than expected ROI.

h. Highlights

DHS Component Successes:

- FLETC implemented an EMS based on International Organization for Standardization (ISO) standard 14001. The FLETC EMS policy statement focuses on sustainable acquisition and construction, pollution prevention, reductions in energy and water use, and community outreach and involvement.

- ICE has been following the Guiding Principles for all new construction and major renovations with three awaiting LEED® certification, three under construction.

- NPPD established a real property database using the Department's Real Property Information System and Sunflower databases to manage and verify the NPPD portfolio that will aid in evaluating the NPPD environmental footprint.

- USCIS leased facilities have received 22 USGBC LEED® certificates since 2005; 5 Gold, 14 Silver, and 3 Certified which represent 16.32% of USCIS space by rentable square feet.

- USCIS teamed with GSA to develop a SFO with a focus on sustainable facilities. Sustainable practices are incorporated into the construction, renovation and operation of USCIS leased space in line with the Guiding Principles for Sustainable New Construction and Major Renovations.

- CBP conducted energy audits for two major laboratories and identified various low-cost energy efficiency opportunities.

- DHS Component Challenges:

- For USCG, availability of resources (i.e., financial and personnel) to direct towards sustainability efforts is limited. To supplement its limited dedicated staff, USCG will work towards a paradigm shift in its operational culture to integrate sustainability concepts within all levels of its organization, to instill an "all hands on deck" sense of unity and resultant dedication. Additionally, USCG will perform thorough due diligence prior to the execution of any sustainability project to ensure that the portfolio of selected projects will yield maximum life cycle returns on investment for key metrics. Due to the lack of appropriated funds to support initiatives, USCG will continue to proactively seek and employ alternatively-financed projects. Finally, USCG will employ a cradle-to-grave sustainability philosophy, emphasizing sustainable design, embedding flavors of sustainability in all its activities, and a focusing on personnel training and education.

- FEMA owns a small footprint of facilities with the remainder controlled by GSA or a private building owner. These facilities were built prior to the promulgation of most conservation and sustainability requirements and retrofitting these facilities can be quite costly. More than one facility is also a historic site, requiring approval for various upgrades that may or may not impact sustainability efforts. These constraints can make it a challenge to meet certain energy, water, and GHG reduction targets; however, staff will continue to identify sustainable practices and identify funding to upgrade these facilities.

- For S&T, security interests related to locating facilities may be in conflict with the goal of increased regional and local planning coordination. S&T will strive to accommodate sustainable building locations while ensuring the security of its facilities, employees, and the public.

- Many of the 870 CBP structures are older and leased through GSA. Making these structures energy efficient will require reprioritizing existing funds to meet the Sustainable Buildings criteria.

- Most of TSA’s building space is leased and not under the control of TSA. TSA relies heavily on the voluntary environmental and conservation activities of its employees as a way to meet goals.

4. GOAL 4: Water Use Efficiency and Management

a. Goal description

The Department is committed to achieving the following water use efficiency and management goals:

1) Reduce potable water use intensity by at least 26% by FY 2020.
2) Reduce industrial, landscaping, and agricultural water use by at least 20% by FY 2020.
3) Identify and implement water reuse strategies.
4) Achieve objectives established by EO 13508 *Chesapeake Bay Protection and Restoration*, Action Plan for Water Quality Goal.
5) Incorporate appropriate reduction strategies for non-potable water use into Department policy and planning.

b. Department lead for goal

The SSO, as the designated Department lead, will direct the activities of the Sustainability Council for target development, implementation, and oversight. The CAO has primary lead for achieving this goal.

c. Implementation methods

In order to achieve this goal, DHS and its Components have developed a high level approach that includes short-term, medium-term and long-term activities/initiatives.

Short Term (FY2010-FY2012)

- DHS will ensure that sites with footprints exceeding 5,000 square feet follow the EPA EISA Section 438 guidance on stormwater runoff management; and

  Status: (Completed) Incorporated into the Facilities Design and Construction Guidance Manual currently under development.

- CAO (Environmental Management and Real Property) will develop a Sustainable Sites guide.

  Status: (Completed) Incorporated into the Facilities Design and Construction Guidance Manual currently under development.

- NPPD will work with GSA to ensure consideration of the following when providing space for NPPD: using cost-neutral retrofits involving low-flow and waterless fixtures; implementing strategies for capture and storage of rainwater for irrigation among other ways to ensure water efficient management within facilities.

  Status: (Action Pending) New item from 2010 OSPP.

- ICE will perform water audits in ICE owned facilities.

  Status: (Action Pending) New item from 2010 OSPP.

- FEMA will maximize the installation of advanced water metering.

  Status: (Action Pending) New item from 2010 OSPP.

- S&T will evaluate installation of sub-meters to track industrial and agricultural water use.

  Status: (Action Pending) New item from 2010 OSPP.

- S&T will evaluate water management, to include water conservation and storm water runoff in design.

  Status: (Action Pending) New item from 2010 OSPP.

- USSS will use effective landscape and forestry management contracts as a component of the Rowley Training Center stormwater management and soil erosion control plans.

  Status: (Action Pending) New item from 2010 OSPP.

- USCG will establish and maintain a service-wide Energy/Water Management Working Group.

  Status: (Action Pending) New item from 2010 OSPP.

Medium Term (FY2013-FY2017)

- CAO (Energy Manager) will refine the existing water efficiency program to achieve the goals of EOs 13514 and 13423.
- CAO (Energy Manager) will ensure policy and guidance address the following:
  - Using cost-neutral retrofits involving low-flow and waterless fixtures;
  - Where appropriate, developing a plan to incrementally move away from using potable water in toilets, cooling, and irrigation;
  - Implementing strategies for capture and storage of rainwater for irrigation, toilet flushing, vehicle washing, laundry and other non-potable uses; and
  - Investigating and implementing strategies for onsite water reclamation.
- CAO (Environmental Manager) will develop a plan for conducting stormwater pollution prevention assessment using EO 13508 Section 502 as a guide for facilities located in the Chesapeake Bay watershed.
- NPPD will work with GSA to ensure sites with footprints exceeding 5,000 square feet follow the EPA EISA Section 438 guidance on stormwater runoff management.

- USCG will utilize alternatively financed energy contracts (e.g., ESPCs and PPAs) to fund water conservation measures and consider water conservation measures as part of all alternatively-financed projects.
- USCG will deploy and monitor water meters.

Long Term (FY2018-FY2021)

- DHS will use composting toilets and gray-water systems that converts toilet waste into useful end-products for agriculture.
- DHS will identify and evaluate innovative and sustainable methods to provide potable water following disasters in an effort to improve mission-critical resiliency.
- DHS will move towards decentralized, low-energy wastewater treatment systems, such as “living-machine” treatment systems that rely on gravity and horticultural engineering.
- DHS will identify and prioritize stormwater pollution projects for facilities located in the Chesapeake Bay watershed.
- CAO will develop policy and guidance for diverting rainwater from entering sewage treatment systems through:
    - Dispersed rainwater catchment systems (producing new supplies of water for irrigation, gray-water systems, etc);
    - Green roofs in urban areas where there are limited opportunities for rainwater filtration; and
    - Urban forestation in DHS projects (to absorb storm water and reduce urban heat island effects characterized by spikes on peak-load due to increased air conditioning).
- NPPD will work with GSA to ensure consideration of the following for space they provide for NPPD: use of composting toilets and graywater systems; identifying and evaluating innovative and sustainable methods to provide potable water following disasters and diverting rainwater from entering sewage treatment systems.

d. Positions

At the Department level there are no positions dedicated solely to improving water use efficiency and management. The Environmental Manager, Energy Manager, and Real Property, in addition to their other tasks, manage the initiatives and requirements for this goal.

DHS Components:

- At NPPD, CBP, FLETC, ICE, S&T, TSA, USCIS, and USSS: There are no positions dedicated solely to improving water use efficiency and management. Several personnel support water initiatives part-time. The responsibility to address these requirements is shared among several organizations. In FY12 CBP will create FTEs for those diverted during FY11.

- For S&T laboratories, Facility Managers and ESH professionals support water use efficiency and management initiatives.

- For TSA, existing staff and contractor support for OBMS and OSHE are sufficient for pursuing opportunities for TSA to reduce its consumption of water.

- For USCIS, the CAO, in addition to other tasks, manages the initiatives and requirements for this goal.

- At FEMA, it is not possible to accurately determine the total amount of positions/resources dedicated to this goal. FEMA will work with DHS to develop a procedure to report positions and resources associated with this goal by the end of FY11.

- The Coast Guard currently maintains one full time position for work that includes water conservation in addition to Scope 1 and Scope 2 GHG gas reduction. In addition the SILC is developing an Energy Management Division for planning and implementation of shore water projects.

e. Planning table

The following planning table was completed based on input provided by the Components in their OSPPs and FEMP's Annual GHG and Sustainability Data Reports among other sources.

Table 15: DHS Water Use Efficiency and Management

WATER USE EFFICIENCY AND MANAGEMENT	Units	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15	…	FY 20
Potable Water Reduction Targets (gal/SF reduced from FY07 base year)	%	6%	8%	10%	12%	14%	16%	…	26%
Planned Potable Water Reduction (gal/SF reduced from FY07 base year)	%	n/a	8%	10%	12%	14%	16%	…	26%
Industrial, Landscaping, and Agricultural Water Reduction Targets (gal reduced from FY10 base year)	%	0%	2%	4%	6%	8%	10%	…	20%
Planned Industrial, Landscaping, and Agricultural Water Reduction (gal reduced from FY10 base year)	%	n/a	2%	4%	6%	8%	10%	…	20%

f. Department status

The Department is updating Directive 025-01 Sustainable Practices for Environmental, Energy and Transportation Management to reflect the water use efficiency and management requirements set forth by EO 13514. Directive 025-01 currently establishes policy to reduce water consumption intensity and purchase water efficient

products and services. The Department tracks Component progress towards achieving these goals through internal quarterly scorecards.

DHS achieved a 13% (FY 2010 target of 6%) reduction in water use intensity at its facilities relative to an FY 2007 baseline, through continued implementation of water conservation measures, leak detection and repair, alternatively financed projects, water auditing, and education and outreach. DHS Components with exceptional performance include:

- USCG with a 17% reduction in potable water use intensity;
- FLETC with an 11.7% reduction in potable water use intensity;
- USSS with a 65% reduction in potable water intensity;

The following DHS Components completed plans for reducing water intensity:

- CBP (Preliminary)
- FEMA (Preliminary)
- FLETC (Final)
- ICE (Preliminary)
- S&T (Final)
- TSA (Final)
- USCG (Final)
- USSS (Final)

g. Return on investment

No projects have been cancelled or suspended due to a lower than expected ROI.

h. Highlights

DHS Component Successes:

- CBP is using green landscaping practices with low drip irrigation at the Arizona Border Patrol Station. Detention basins retain site runoff and return it into the aquifer through percolation.

- FLETC established an Energy Management Office and initiated the process to explore the implementation of ESPCs covering energy needs at all four FLETC training sites. The ESPC contractor was selected and a kickoff meeting held August 21, 2010. All site evaluations were completed on September 24, 2010. In FY11, FLETC will evaluate an ESPC contractor proposal for meeting energy and water reduction requirements.

- FEMA's CDP in Anniston, Alabama has initiated several actions and programs to conserve water, including replacing all shower heads in the dormitories with water efficient shower heads.

DHS Component Challenges:

- S&T does not directly manage energy and water consumption at three of its five facilities, which are essentially leased space, managed by other Federal entities.

- FEMA owns a small footprint of facilities with the remainder controlled by GSA or a private building owner. These facilities were built prior to the promulgation of most conservation and sustainability requirements and retrofitting these facilities can be quite costly. More than one facility is also a historic site, requiring approval for various upgrades that may or may not impact sustainability efforts. These constraints can make it a challenge to meet certain energy, water, and GHG reduction targets; however, staff will continue to identify sustainable practices and identify funding to upgrade these facilities.

5. GOAL 5: Pollution Prevention and Waste Reduction

a. Goal description

The Department is committed to achieving the following pollution prevention and waste reduction goals:

1) Increase source reduction of pollutants and waste.
2) Divert at least 50% non-hazardous solid waste by FY 2015, excluding C&D debris.
3) Incorporate appropriate strategies to reduce MSW sent to landfills and assist the Department in achieving FY 2020 GHG reduction targets [See Goals 1 and 2 above].
4) Divert at least 50% C&D materials and debris by FY 2015, and discuss methods used to monitor and track progress.
5) Reduce printing paper use.
6) Increase use of uncoated printing and writing paper containing at least 30% postconsumer fiber.
7) Reduce and minimize the acquisition, use, and disposal of hazardous chemicals and materials, and discuss how implementation will assist the agency in achieving FY 2020 GHG reduction targets [See Goals 1 and 2 above].
8) Increase diversion of compostable and organic materials from the waste stream.
9) Implement integrated pest management and landscape management practices to reduce and eliminate the use of toxic and hazardous chemicals and materials.
10) Increase use of acceptable alternative chemicals and processes.
11) Report in accordance with Sections (301-313) of the Emergency Planning and Community Right-to-Know Act of 1986.

b. Department lead for goal

The SSO, as the designated Department lead, will direct the activities of the Sustainability Council for target development, implementation and oversight. CAO and CPO share primary responsibility for achieving these goals.

c. Implementation methods

Solid Waste Management:

Solid waste for the purpose of this goal refers to MSW (including landscape waste and food waste) and C&D debris. Universal waste items (e.g., lead-acid batteries, fluorescent lamps), “special” non-hazardous wastes (e.g., scrubber and wastewater treatment sludge), or hazardous wastes are not included. Below are implementing methodologies to be studied and, if cost-effective, implemented within DHS to achieve required goals:

- Divert at least 50 percent of non-hazardous solid waste by FY 2015, excluding C&D debris:

  - Conduct waste audits of facilities to gather comprehensive data on local markets and recycling collection companies;
  - Establish effective office waste recycling programs that include not only high-grade paper and corrugated cardboard but other items including beverage containers, compostable cafeteria wastes, newspapers, dry cell batteries, toner cartridges, used furniture, and e-waste (e-waste management is discussed under Goal 7); and
  - Execute long-term contracts with waste collection contractors to ensure best possible revenue from recyclable sales (or alternatively place the majority of market-related risks with the contractor).

- Divert at least 50 percent of C&D materials and debris by FY 2015:

  - Require that C&D contractors develop a project waste management plan, and place recycling container(s) on site for duration of the project;
  - Use just-in-time methods to reduce excessive construction-related debris;
  - Ensure that demolition is performed in a manner that allows debris to be readily recycled (e.g., wrecking ball rather than explosives, shear attachments to separate scrap metal from other debris);
  - Where possible, use crushed brick and concrete rubble as fill material on the project site; and
  - Where feasible, permissible, and cost-effective, decontaminate debris on site rather than directly dispose of it at off-site facilities.

- Increase diversion of compostable and organic materials from the waste stream:

  - Use a three-bin collection system at the point of generation, to ensure organics are not mixed with other MSW; and
  - For facilities that generate small amounts of organic waste, evaluate benefits, limitations, and costs of on-site composting; if composting on site, take all necessary steps to control odor.

Pollution Prevention

Pollution prevention is reducing or eliminating waste at the source by modifying production processes, promoting the use of non-toxic or less-toxic substances, implementing conservation techniques, and re-using materials rather than putting them into the waste stream. The Pollution Prevention Act declared a national policy that pollution should be prevented or reduced at the source whenever feasible; pollution that cannot be prevented should be recycled in an environmentally safe manner, whenever feasible; pollution that cannot be prevented or recycled should be treated in an environmentally safe manner whenever feasible; and disposal or other release into the environment should be employed only as a last resort and should be conducted in an environmentally safe manner. Pollution prevention strategies generally consist of one of the following actions: equipment or technology modifications; process or procedure modifications; reformulation or redesign of products; substitution of raw materials; and/or improvements in housekeeping, maintenance, training, or inventory controls.

Some specific actions that can be studied and, if cost-effective, implemented within DHS are:

- Increase source reduction of pollutants and waste by:
    - Exploring technologies and processes that potentially could (1) reduce quantity of decontamination rinse water, (2) reduce temperature of heated decontamination water to conserve energy, and/or (3) reduce quantity of infectious waste requiring disposal (e.g., autoclave infectious solid waste on site). Any measures selected must comply with applicable safety, health, and environmental protection laws and regulations; and
    - Where feasible, minimizing the use of toxic or hazardous solvents and cleanup chemicals in laboratory operations.

- Reduce printing paper use by:
    - Setting all printers and copiers to produce double-sided copies by default;
    - Purchasing digital magazine subscriptions and route them via e-mail; and
    - Establishing web sites for employee discussion forums and Department policies; discourage production of hard copy memos.

- Improve integrated pest management and landscape management practices to reduce and eliminate the use of toxic chemicals and increase the use of acceptable alternative chemicals and processes by:
    - Using traps and physical barriers to prevent contact between pests and plantings;
    - Leaving mowed grass clippings on lawn areas (provided odor is not objectionable) and use recycled wood chips or compost for mulch;
    - Evaluating potential use of organic and non-toxic soil amendments and/or pesticides; and
    - Where appropriate, using natural vegetation and xeriscaping rather than turf grass and non-native trees or shrubs.

- Increasing use of uncoated printing and writing paper containing at least 30 percent post-consumer fiber.

- Decreasing the use of chemicals to assist in achieving FY 2020 GHG reduction targets:
    - Specify all new chillers and refrigeration units to be non-chlorofluorocarbon (CFC) and non- hydrochlorofluorocarbon (HCFC);
    - Convert existing units to non-CFC and non-HCFC where practicable; and
    - Prevent fugitive emissions and manage CFCs purged from older units in accordance with Clean Air Act requirements.

In order to achieve this goal, DHS and its Components have developed a high level approach that includes short-term, medium-term and long-term activities/initiatives.

Short Term (FY2010-FY2012)

- All CXOs will identify those functions suitable for automation and paper reduction, and determine new more efficient methods of performing.

  Status: (Ongoing) Once stand-alone copy, fax and printer equipment reaches the end of its useful life it is replaced with all-in-one equipment as required by one of the Secretary's Efficiency Initiatives. Duplex printing functions are being enabled through individual CXO requests to Information Technology Service Calls and efforts by the CIO.

- All CXOs will increase automation and paperless processes in security administration functions that are currently done manually thus reducing energy/resource requirements and waste.

  Status: (Ongoing) CAO is working to identify document processes as part of a larger initiative to create paperless mail and document control systems.

- CAO (Environmental Management) will establish policy and guidance for conducting pollution prevention and waste audits at priority facilities to include assessment of waste generation and disposal; waste streams; waste stream composition; source reduction opportunities; effectiveness of current recycling programs; and implemented waste diversion technologies.

  Status: (Ongoing) CAO is developing policy and guidance to us the Corps of Engineer's Compliance Track (CP-Track) for managing audits.

- CAO (Environmental Management) will ensure that policy and guidance addresses:

  - Establishing pilot programs for collecting and composting organic wastes;
  - Creating a system or process for tracking key program metrics;
  - Implementing hazardous materials pharmacies;
  - Developing pollution prevention and Waste Management Strategic Plan focusing on source reduction, recycling, and (where absolutely necessary) disposal or diversion; and
  - Identifying and evaluating ways to use operations and purchasing, where possible, to contribute to chemical security by promoting a transition to the purchasing and use of safer chemicals.

  Status: (Ongoing) A Sustainable Practices Manual is under development that will incorporate this information.

- SSO will direct investigating the feasibility of establishing an incentive program to encourage waste minimization and P2 ideas from employees.

Status: (Ongoing) SSO established an Employee Engagement Work Group to develop recommendations on how best to implement this item.

- CSO will deconstruct/recycle salvageable security systems and equipment rather than disposing of and purchasing new.

  Status: (Completed) Incorporated into CSO business practice.

- CSO will develop routine procedures and processes to identify and reclaim systems, equipment, parts, and materials for the purposes of deconstruct/recycle salvageable security systems and equipment rather than disposing of and purchasing new.

  Status: (Completed) Incorporated into CSO business practice.

- CPO will develop contract language that specifies that all vendors reduce the amount of packaging waste, including substitution of reusable shipping containers for disposable packaging.

  Status: (Completed) In accordance with the Federal Acquisition Regulation (FAR) CPO requires the use of FAR clause 52.223-10 Waste Reduction Program in applicable contract actions.

- DHS will implement Paperless Earnings and Leave Statement (ELS) initiative across the Department in FY 2010. This is based on a campaign initiated by CBP in 2009 to encourage employees to stop receiving hardcopies of their ELS.

  Status: (Action Pending)

- ICE will evaluate waste management contracts to identify opportunities for collection and reporting of solid disposed and type and quantity of material recycled.

  Status: (Action Pending) New item from 2010 OSPP.

- FEMA will reuse Blackberries to employees as opposed to issuing new ones to new employees in order to reduce waste.

  Status: (Action Pending) New item from 2010 OSPP.

- FEMA will eliminate desk-side printers to reduce electronic and paper waste.

  Status: (Action Pending) New item from 2010 OSPP.

- NPPD will create awareness information for employees to encourage them to participate in the building's recycling program.

  Status: (Action Pending) New item from 2010 OSPP.

- S&T will complete mandatory awareness and/or competency training for individuals using chemicals onsite in accordance with applicable standards (annual requirement).

  Status: (Action Pending) New item from 2010 OSPP.

- USSS will conduct a baseline of the hazardous chemicals in use at Secret Service HQ and auxiliary offices and develop a process map to document the hazardous chemicals from acquisition through use and ultimate disposal.

  Status: (Action Pending) New item from 2010 OSPP.

- USSS will promote a policy that communicates the need to reduce the use of printing paper.

  Status: (Action Pending) New item from 2010 OSPP.

- USCG will promote, via contract language and training, minimizing the acquisition, use, and disposal of hazardous chemicals and materials.

  Status: (Action Pending) New item from 2010 OSPP.

- USCIS will develop a sustainability guidebook that will cover pollution prevention, recycling, and disposal or diversion of waste.

  Status: (Action Pending) New item from 2010 OSPP.

Medium Term (FY2013-FY2017)

- CSO will establish and Implement new processes, measure effectiveness, make improvements and expand as possible.
- CSO will implement processes for routine reclamation and reuse of deconstruct/recycle salvageable security systems and equipment rather than disposing of and purchasing new.
- CAO (Environmental Management) will identify innovative technologies for water, energy, and waste reduction for development of potential pilot projects.
- CAO (Environmental Management) will determine a baseline for the amount of food waste generated at every DHS facility.
- CAO (Environmental Management) identify materials and products that DHS uses in large quantities and then perform life-cycle assessments of those materials or products that DHS uses in large quantities.
- NPPD will identify materials and products that NPPD uses in large quantities and then perform life-cycle assessments of those materials or products.
- S&T will implement a Hazardous Material Pharmacy program at PIADC to reduce the quantities of hazardous materials purchased, used, and disposed; establish baseline levels of material quantities on hand, stored or used.

- USCG will incorporate integrated pest management and landscape management into training and engineering practices and re-issue the Beneficial Landscape Manual.
- USCIS will establish policy that requires all printers be set to grayscale and duplex printing by default.
- USCIS will develop contract language that specifies vendors reduce the amount of packaging waste, including substitution of reusable shipping containers for disposable packaging.

Long Term (FY2018-FY2021)

- CAO (Environmental Management) will determine a baseline of CFCs and HCFCs and work towards ensuring that all DHS facilities are CFC- and HCFC-free.
- CSO will establish and Implement new processes, measure effectiveness, make improvements and expand as possible.
- USM will implement steps to reduce overall air, water, waste, carbon, and other impacts from the supply chain, consistent with Life Cycle Accounting.
- USM will define a methodology to engage with vendors and contractors to reduce upstream impacts in the supply chain (e.g., carbon emissions, air pollutants, wastewater, and solid wastes).
- S&T will maintain an accurate inventory of laboratory chemicals stored on site (ongoing) resulting in no more than 10% of items unaccounted for during quarterly Quality Assurance Audits.
- USCG will develop Authorized Chemical Use List and HM pharmacy controls to increase use of acceptable alternative chemicals and processes.

d. Positions

At the Department level there are no positions dedicated solely to pollution prevention and waste elimination. The Environmental Manager and CPO, in addition to their other tasks, manage the initiatives and requirements for pollution prevention and waste elimination.

DHS Components:

- At NPPD, CBP, ICE, S&T, TSA, USCG, USCIS, and USSS: There are no positions dedicated solely to pollution prevention and waste elimination. Several personnel support these initiatives part time. The responsibility to address these requirements is shared amongst several organizations. CBP will create FTEs to replace those diverted during FY11.

- For TSA, tasks related to achieving this goal are currently carried out by existing staff and contractor support in OSHE.

- For S&T, at the laboratories, the Facility Chemical Hygiene Officers, Facility Managers, and ESH professionals address pollution prevention and waste elimination in addition to their regular jobs.

- At FEMA , it is not possible to accurately determine the total amount of positions/resources dedicated to this goal. FEMA will work with DHS to develop a procedure to report positions and resources associated with this goal by the end of FY11.

- At FLETC, one additional FTE may be required to operate a recycling program. An option would be to obtain workers through a work program with local correctional institutes. FLETC would provide an inmate supervisor. Initially this will be accomplished with in-house personnel, but as the program grows, it may become necessary to add an additional recycling manager.

e. Planning table

The following planning table was completed based on input provided by the Components in their OSPPs and FEMP's Annual GHG and Sustainability Data Reports among other sources.

Table 16: Pollution Prevention and Waste Reduction

POLLUTION PREVENTION AND 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)	%	20%	25%	30%	35%	40%	45%	…	50%
C&D Material & Debris Diversion Targets	%	20%	25%	30%	35%	40%	45%	…	50%
Diversion through Waste-to-Energy	Tons or pounds	0%	0%	0%	0%	0%	0%	…	0%
Number of sites or facilities with on-site composting programs	#	5	5	5	5	5	5	…	5
Number of sites or facilities recycling through off-site composting programs	#	0	0	0	0	0	0	…	0
If agency has on-site or off-site composting programs, estimated total weight of materials diverted to composting	Tons	68	TBD	TBD	TBD	TBD	TBD	…	TBD
Percent of agency-operated offices/sites with a recycling program	%	TBD	TBD	TBD	TBD	TBD	TBD	…	TBD
If agency offices located in multi-tenant buildings, % of those buildings with a recycling program	%	78%	80%	85%	90%	Hold	Hold	…	Hold
Percent of agency-operated residential housing with recycling programs	%	41%	TBD	TBD	TBD	TBD	TBD	…	TBD

Note: Most of the residential housing operated by the agency are located in small remote communities where recycling is not available or cost effective.

f. Department status

The Department is updating Directive 025-01 Sustainable Practices for Environmental, Energy and Transportation Management to reflect the water use efficiency and waste management requirements set forth by EO 13514. Directive 025-01 currently establishes policy to reduce the quantity of toxic and hazardous chemicals and materials acquired, used, or disposed, increases the diversion of solid waste as appropriate, and maintains cost-effective waste prevention and recycling programs at its facilities. The Chemical Management Plan developed for EO 13423 is rescinded and the remaining elements have been integrated into the Sustainability Plan.

The Department tracks Component progress towards reporting quantity and cost of hazardous waste disposed of through its internal quarterly scorecards.

g. Return on Investment

No projects have been cancelled or suspended due to a lower than expected ROI.

h. Highlights

DHS Component Successes:

- CBP implemented its own efficiency program. One major success of this Program is the execution of the Paperless ELS initiative. In 2009, CBP initiated a campaign encouraging employees to stop receiving hardcopies of their ELS and leadership authorized discontinuing mailing hardcopies of ELS and transition to a paperless process. By January 2010, 22% of CBP employees voluntarily switched to paperless ELS. In addition to preventing waste, this initiative has saved CBP approximately $486,000 between FY 2009 and FY 2010. In FY 2011, CBP anticipates a cost avoidance of approximately $573,000 by eliminating mailed statements to all CBP employees. Based on the success of this initiative at CBP, DHS decided to implement this initiative across the Department in FY 2010.

- Electronic Conversion of CBP Today Newsletter. The newsletter is now available online and resulted in annual savings of $90,000 in addition to the prevention of waste.

- FLETC implemented an EMS based on ISO standard 14001. The FLETC EMS policy statement focuses on sustainable acquisition and construction, pollution prevention, reductions in energy and water use, and community outreach and involvement.

- FLETC focused on reducing the amount of waste that is hauled from its facilities. FLETC staff has been working with the Bureau of Prisons and in FY11 hopes to

enter into an arrangement to use inmate labor to operate a full scale recycling operation at the Brunswick campus.

- USSS partnered with GSA to add the James J. Rowley Training Center (RTC) to the GSA Recycling Program. This allows the RTC to now recycle targets that otherwise would have been disposed through the solid waste contractor. The recycling program was initiated for cans, bottles, glass, and most notably the thick stock paper target used on the weapon ranges. Through the GSA contract the recycle material is picked up and any proceeds that may be received by GSA are then passed down based upon the weight and type recycle material. The diversion of this material has substantially reduced the solid waste allowing the Service to renegotiate its trash hauling contract (estimated savings of $28K). The other notable change is the identification of lead from weapons projectiles that can be recycled rather than handled as solid/hazardous waste. The diversion of this waste stream is expected to reduce the hazardous material contract by an estimated $840K over the expected 7-year contract. Additionally, the lead that is recycled will generate revenue for the Service.

6. GOAL 6: Sustainable Acquisition

a. Goal description

The Department is committed to achieving the following sustainable acquisition goals:

1) 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 (e.g., ENERGY STAR® or FEMP-designated), water efficient, biobased, environmentally preferable (excluding EPEAT-registered products), non-ozone depleting, contain recycled content, or are non-toxic or less toxic alternatives.
2) Update the Department's Affirmative Procurement Plan (APP), policies and programs to ensure that all mandated Federally-designated products and services are included in all relevant acquisitions.

b. Department lead for goal

The SSO, as the designated Department lead, will direct the activities of the Sustainability Council for sustainable acquisition target development, implementation, and oversight. CPO has primary responsibility for achieving the sustainable acquisition goal.

c. Implementation methods

The following are the implementation methods and tasks necessary to achieve the sustainable acquisition goals:

- The CPO Homeland Security Acquisition Manual (HSAM) and APP provide guidance and procedures for ensuring DHS achieves the goal. All Department program offices, Components, operation offices, sites, facilities, and applicable contractors will follow the APP.

- Support sustainability by engaging in the planning of high-performance, sustainable buildings to ensure that contractors are, where feasible and cost-effective, using "green" building materials and subcontractors follow sustainability practices (refer to Goal 3: High-Performance Sustainable Design/Green Buildings and Regional and Local Planning, and Goal 5: Pollution Prevention and Waste Reduction).

- CIO and CAO will develop and implement a system for tracking and reporting "green" procurements with support from CPO.

- CPO with assistance from CAO will develop ways to use its purchasing power to procure goods and services that address key sustainability issues such as GHG emissions, water efficiency, pollution prevention, and high-performance sustainable buildings to encourage manufacturers and corporations to invest in research and innovation, and to increase the production and availability of environmentally preferable goods and services. This can lead to competitive

pricing and increase reliance on abundant, renewable, and environmentally-preferable resources.

- The Department will develop pollution prevention and recycling policies for inclusion in DHS contracts and leases (refer to Goal 5: Pollution Prevention and Waste Reduction).

- The Department will implement standard contract language to reduce GHG emissions, consistent with the DHS-wide GHG reduction target developed pursuant to Section 2 of EO 13514 (also refer to Goal 1: Scope 1 & 2 GHG Reduction, and Goal 2; Scope 3 GHG Reduction & Develop and Maintain Agency Comprehensive GHG Inventory).

- CHCO will develop and implement mandatory acquisition workforce sustainability training and qualifications.

In order to achieve this goal, DHS and its Components have developed a high level approach that includes short-term, medium-term and long-term activities/initiatives.

Short Term (FY2010-FY2012)

- CPO will establish DHS-wide contract for the replacement of ink jet and toner cartridges that includes mandatory recycling of (and credit for) spent ink jet and toner cartridges.

  Status: (Completed) A department-wide Blanket Purchase Agreement for replacement ink and toner cartridges is available.

- CAO (Environmental Management) will research the department-wide Blanket Purchase Agreement for replace ink and toner cartridges to ensure it complies with FAR clauses requirements the use recycled content materials.

- CFO will continue to emphasize sustainability training and benefits of sustainable purchases during mandatory training for all DHS purchase card (P Card) holders.

  Status: (Ongoing) Sustainability incorporated in training being provided to P Card Holders.

- CPO, with assistance from CAO, will review annually the Acquisition Forecast APFS website (fido.gov) and its semi-annual update, and other appropriate data, to identify target procurements for early intervention in acquisition planning.

  Status: (Cancelled) There is too many listing in APFS and not enough FTEs to adequately review the APFS and take intervention action. Additionally, the APFS does not provide enough detail to determine if the procurement is applicable.

- CPO will review the DHS APP to ensure it fully addresses EO 13514 requirements paying particular attention to GHG emission requirements and

ensuring it leverages DHS purchasing power to incentivize innovation of goods and services that align with EO 13514 goals.

Status: (Ongoing) CPO will continuously update as required by changes in law and current and future FAR cases.

- CPO will develop a plan for performing in-house reviews of contracts for compliance with EO 13514 and creating corrective action plans for discrepancies.

  Status: (Completed) This action is accomplished through quarterly sustainability data calls and reported on the OMB Sustainability Scorecard.

- CPO with assistance from CAO will develop suggested sustainable purchasing language for contracts, statements of work and contract evaluations.

  Status: (Action Pending)

- CPO will establish requirements for Contracting Officers, Contracting Officer Technical Representatives to complete sustainability training.

  Status: (Ongoing) Sustainability training has been established and other related training identified by CPO.

- CPO will ensure that 95% of eligible new and existing contract actions include the required environmental clauses and provisions prescribed in FAR Part 23.

  Status: (Ongoing)

- CPO will update the Affirmative Acquisition Plan in the HSAM Appendix Q to incorporate EO 13514 requirements by June 30, 2011.

  Status: (Action Pending) Pursuant to FAR Case 2010-01 Sustainable Acquisitions.

- CPO will start using the updated Product Service Codes in all DHS Contract Writing Systems and the Federal Procurement Data System-Next Generation, within 90 days of release by the GSA, to improve the quality of reporting and tracking of environmental acquisitions.

  Status: (Action Pending)

- CPO will increase user awareness of sustainable products and services by assigning a green icon identifier to existing DHS-wide “green” strategically sourced vehicles posted on the DHS intranet (i.e., DHS Connect), within the third Quarter of FY 2011.

  Status: (Action Pending)

- CAO (Environmental Management) will develop policy and guidance for implementing Hazardous Material Pharmacy programs to reduce the quantities of hazardous materials purchased, used, and disposed.

  Status: (Ongoing) CAO (Environmental Management) is currently revising the Compliance Directive and Manual. The Manual will incorporate guidance for implementing Hazardous Material Pharmacy programs to reduce the quantities of hazardous materials purchased, used, and disposed.

- CSO will strive to obtain security goods and services locally or internally thus reducing energy requirements for their delivery and use.

  Status: (Ongoing)

- CHCO will implement Department–wide sustainability awareness training via a learning management system (i.e., DHScovery).

  Status: (Action Pending) A draft employee sustainability awareness training course is under development. Once reviewed and approved it will be posted on DHScovery.

- ICE will modify P Card System to include “Green Codes” to facilitate monitoring and measuring sustainable acquisitions.

  Status: (Action Pending) New item from 2010 OSPP.

- FEMA will develop green procurement training for Contracting Personnel, P Card Holders and Program Staff.

  Status: (Action Pending) New item from 2010 OSPP.

- FEMA will develop Green Purchasing Standard Operating Procedures to include review of acquisition forecasts and other acquisition planning documents to ensure that new contract actions contain provisions for green products and services when appropriate.

  Status: (Action Pending) New item from 2010 OSPP.

- S&T will finalize the S&T Green Procurement Program (GPP) Handbook that will identify S&T policy, roles and responsibilities, and provide tools to enable the procurement of environmentally preferable products and services for those involved in purchasing processes.

  Status: (Action Pending) New item from 2010 OSPP.

- USCG will develop green purchase-specific checklists to facilitate green purchases.

Status: (Action Pending) New item from 2010 OSPP.

- USCG will work with the small business program manager to ensure that vendors and suppliers are informed of green requirements via small business workshops

  Status: (Action Pending) New item from 2010 OSPP.

- USCIS will develop sustainable acquisition training for government P Card holders and contracting personnel.

  Status: (Action Pending) New item from 2010 OSPP.

- USCIS will develop suggested sustainable purchasing language for contracts, statements of work and contract evaluations.

  Status: (Action Pending) New item from 2010 OSPP.

Medium Term (FY2013-FY2017)

- TSA will issue an internal guidance and procedure memo to institute contracting efforts on applying applicable sustainable acquisition clauses and provisions in acquisition contracts.

Long Term (FY2018-FY2021)

- CPO with assistance from CAO will develop policies, guidance and procedures to encourage carbon footprint minimization through the supply chain by including contract provisions with suppliers of all materials, goods, and services to identify and use more energy-efficient products.

- S&T, where possible given mission requirements, will eliminate purchases of toxic hazardous chemicals when a non-toxic/nonhazardous alternative exists.

d. Positions

At the Department level there are no positions dedicated solely to sustainable acquisition. The Environmental Manager, Energy Manager, and CPO, in addition to their other tasks, manage the initiatives and requirements for sustainable acquisitions.

DHS Components:

- At NPPD, CBP, FLETC, ICE, S&T, TSA, USCG, USCIS, and USSS: At the NPPD level there are no positions dedicated solely to sustainable acquisitions. Several personnel support this initiative part-time. In FY12 CBP will create FTEs to replace those diverted in FY11.

- For S&T, existing CAO, Policy and Budget Division, and DHS Office of Procurement Operations (OPO) staff personnel are responsible for administering

the sustainable acquisition programs. S&T has developed an internal Green Procurement Program Handbook to implement the department's program.

- For TSA, sustainable acquisitions are supported by existing OSHE Division, Office of Acquisition, Office of Information Technology (OIT) and contractor support staff.

- For USCIS, the Chief of Contracting Office (COCO), with the assistance of the CAO, and in addition to other tasks, manages the initiatives and requirements for sustainable acquisitions.

- At FEMA, it is not possible to accurately determine the total amount of positions/resources dedicated to this goal. FEMA will work with DHS to develop a procedure to report positions and resources associated with this goal by the end of FY11.

e. Planning table

The following planning table was completed based on input provided by the Components in their OSPPs and FEMP's Annual GHG and Sustainability Data Reports among other sources.

Table 17: Sustainable Acquisition

SUSTAINABLE ACQUISITION	Units	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15	…	FY 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)	%	TBD	TBD	TBD	TBD	TBD	TBD	…	TBD
Water Efficient Products	%	95%	Hold	Hold	Hold	Hold	Hold	…	Hold
Biobased Products	%	95%	Hold	Hold	Hold	Hold	Hold	…	Hold
Recycled Content Products	%	95%	Hold	Hold	Hold	Hold	Hold	…	Hold
Environmentally Preferable Products/Services (excluding EPEAT – EPEAT in included in Goal 7)	%	95%	Hold	Hold	Hold	Hold	Hold	…	Hold
Significant New Alternatives Policy/non-ozone depleting substances	%	95%	Hold	Hold	Hold	Hold	Hold	…	Hold

The following table lists contracts identified for evaluation.

Table 18: Sustainable Acquisition Contract Review

SUSTAINABLE ACQUISITION CONTRACT REVIEW	1st QTR FY11	2nd QTR FY11	3rd QTR FY11	4th QTR FY11
Total # Agency Contracts	16,186	15,698	22,393	31,339
Total # Contracts Eligible for Review	588	916	910	2,009
Total Contracts Eligible Contract Reviewed (i.e., 5% or more eligible based on previous OMB guidance)*	37	47	53	100
# of Compliant Contracts	14	31	37	49
Total % of Compliant Contracts	53%	82 %	97%	96%

The review identified that 49 of the 100 contracts reviewed were not eligible for green purchasing. The criteria used to generate the report consisted of contract actions that included the two data categories, "Use of EPA Designated Products" and "Recovered Materials" as well as various PSC codes for typically purchased sustainable procurement products and services and statistical sampling. Purchase card transactions were not included in this review as there is currently no method in place to capture the required data.

f. Department status

The Department is updating Directive 025-01 *Sustainable Practices for Environmental, Energy and Transportation Management* to reflect the requirements set forth by EO 13514 and establish policy for sustainable acquisition. The Directive currently establishes policy for instituting procurement programs to purchase bio-based, environmentally preferable, energy-efficient, water-efficient, alternative fueled vehicle, non-ozone depleting substances, and recycled-content products and paper (at least 30 percent post-consumer fiber content) programs.

The Department's APP was modified in 2009 to address all green purchasing requirements. The DHS APP, in accordance with FAR 23.400 was updated as of October 1, 2009 at Appendix Q to the DHS HSAM. The DHS policy states that DHS must strive towards achieving 100% compliance with mandatory Federal green procurement requirements in all applicable acquisitions. DHS Components have been instructed to take the necessary steps to carry out the requirements of the APP for all products and services provided by its vendors.

g. Return on investment

No projects have been cancelled or suspended due to a lower than expected ROI.

h. Highlights

DHS Component Successes

- S&T began development of a GPP to ensure sustainable acquisition of products. The GPP will include guidance on how to optimize green procurement, tracking and reporting.

- DHS Component Challenges

- NPPD does not maintain procurement operations for their Directorate and relies on OPO. NPPD supports the contracting actions to contribute to the sustainable procurement goals.

- USCIS receives very limited environmental funding which is used for outreach and educational awareness materials. The success of sustainable operations is dependent on proactive employee efforts and programs operating within existing budgets.

7. GOAL 7: Electronic Stewardship and Data Centers

a. Goal description

The Department is committed to achieving the following electronic stewardship and data centers goal:

1) Ensure acquisition of EPEAT registered, ENERGY STAR® qualified, and FEMP designated electronic office products when procuring electronics in eligible product categories.
2) 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.
3) Update Department policy to reflect environmentally sound practices for disposition of all agency excess or surplus electronic products.
4) Increase the quantity of electronic assets disposed through sound disposition practices.
5) Require IT planning/Life Cycle Manager to replace and or waive equipment that does not meet "Green" compliance requirements.
6) Update Department policy to ensure implementation of best management practices for energy efficient management of servers and Federal data centers, and reflect requirements to meet data center reduction goals included in the Federal Data Center Consolidation Initiative.

b. Department lead for goal

The SSO, as the designated Department lead, will direct the activities of the Sustainability Council for target development, implementation, and oversight. The CIO has primary responsibility for achieving the electronic stewardship and data centers goal.

c. Implementation methods

In order to achieve this goal, DHS and its Components have developed a high level approach that includes short-term, medium-term and long-term activities/initiatives.

Short Term (FY2010-FY2012)

- CPO will develop suggested contract language for leasing and return of electronic equipment and procurement of EPEAT products;

  Status: (Completed) In accordance with FAR, CPO requires the use of appropriate FAR clauses such as 52.223-15 Energy Efficiency in Energy Consuming Products and 52.223-16 IEEE 1680 Standard for the Environmental Assessment of Personal Computer Products when procuring computer products and services.

- CIO will implement best management practices in energy-efficient management of servers and Federal data centers;

Status: (Action Pending) New item.

- CIO and CPO may issue policy encouraging Program Offices to consider as part of the requirements development process, product disposition in IT purchase and lease contracts. This will assist in ensuring that contracts awarded will encourage manufacturers to generate responsible stewardship programs that allow for the return of excess un-used materials, used items, containers, and packaging.

  Status: (Action Pending)

- CIO and CAO will create a reporting system for tracking and reporting electronic property disposal actions.

  Status: (Action Pending)

- CAO will update the draft Sustainable Practices Guidance Manual to reflect EO 13514 and issue it for formal issue.

  Status: (Action Pending)

- CIO and CAO will develop and implement a system for tracking progress in three life cycle phases:

  - Purchasing;
  - Operations and maintenance; and
  - End of life.

- **Status:** (Action Pending)
- CIO and CAO will develop system for tracking Department progress towards Target Electronics Stewardship Goals:

  - Purchasing EPEAT-registered products;
  - Enabling ENERGY STAR® Features; and
  - Recycling of non-reusable computers using environmentally sound management practices.

- **Status:** (Action Pending)
- CIO will ensure all computing platforms are capable of monitoring and managing server resources to accommodate variations in utilization. Example: A business application may have five web servers; but after 6:00 PM at night, there is little or no data being requested, but all five servers are consuming extreme amounts of electricity and generating heat. If the computing platform power management and monitoring were used; then four of the five web servers could go to “sleep mode” and wake up additional web servers only when needed.

  Status: (Action Pending)

- CIO will establish and implement a DHS-wide integrated reporting systems for EPEAT purchasing results.

  Status: (Action Pending)

- CIO will establish policy, guidance and procedures for:

  - Implementing and enforcing power management, duplex printing, and other energy-efficient or environmentally preferable features on all electronic products;
  - Putting workstations and monitors into sleep mode at the end of the business day as a cost saving measure;
  - Ensuring all workstations and monitors are ENERGY STAR® certified and only purchase ENERGY STAR® certified workstations and monitors;
  - Employing virtualization as an energy saving practice;
  - Setting set printers and copiers to automatic double-sided printing and copying;
  - Replacing stand-alone servers with blade servers;
  - Environmentally sound management and disposal of non-useable electronics; and
  - Ensuring procurement preference for EPEAT-registered electronic products.

  Status: (Action Pending)

- CIO will evaluate equipment replacement cycles and establish policies to maximize product life:

  - Using EPA's guidance to improve the operation and maintenance of electronic products; and
  - Implementing procedures to ensure timely reuse and donation of equipment.

  Status: (Action Pending)

- CIO will implement and enforce power management, duplex printing, and other energy-efficient or environmentally preferable features on all electronic products.

  Status: (Action Pending) New item.

- CIO will implement wake on LAN functionality for all network computers.

  Status: (Action Pending) New item.

- CIO will implement initiatives recommended by the DHS Efficiency Task Force.

  Status: (Action Pending)

- CIO will implement best management practices in energy-efficient management of servers and Federal data centers.

  Status: (Action Pending) New item.

- CIO will ensure procurement preference for EPEAT, ENERGY STAR® and FEMP -registered electronic products by complying with CPO policies and adding compliance questions to the Information Technology Acquisition Review process.

  Status: (Action Pending) New item.

- ICE will conduct inventory of compliant and non-compliant equipment.

  Status: (Action Pending) New item from 2010 OSPP.

- ICE will conduct survey to determine opportunities to increase the use of network printers.

  Status: (Action Pending) New item from 2010 OSPP.

- FEMA will recycle all air cards and cell phones.

  Status: (Action Pending) New item from 2010 OSPP.

- NPPD will create a reporting system for tracking and reporting electronic property disposal actions.

  Status: (Action Pending) New item from 2010 OSPP.

- NPPD will develop and implement a system for tracking all three life cycle phases: purchasing; operations and maintenance; and end of life.

  Status: (Action Pending) New item from 2010 OSPP.

- USSS will work with DHS CIO on data center consolidation and other best management practices for energy management.

  Status: (Action Pending) New item from 2010 OSPP.

- USCG will develop acquisition policy, guidance, clauses, and contract templates and specifications to meet the EPEAT requirements.

  Status: (Action Pending) New item from 2010 OSPP.

- USCIS will evaluate equipment replacement cycles and establish policies to maximize product life in accordance with EPA's guidance to improve the operation and maintenance of electronic products.

Status: (Action Pending) New item from 2010 OSPP.

- USCIS will develop contract language for procurement of EPEAT products.

  Status: (Action Pending) New item from 2010 OSPP.

Medium Term (FY2013-FY2017)

- CIO with assistance from CAO will baseline data centers for power, space and cooling in order to provide a reference point for future comparisons to track the following data on a monthly basis and provide a trending capability.
- CIO will develop a model Data Center Infrastructure Efficiency and Power Usage Effectiveness (PUE) that can be used for qualitative and quantitative analysis of power consumption, cooling, floor space and energy costs.
- CIO with assistance from CAO will explore opportunities to implement renewable energy generation systems for powering mission critical equipment.
- CIO will develop a plan to identify improvements in cooling data center CPO will track and report purchases.
- ICE will evaluate efficiency of data servers and data centers to include energy efficiency.
- S&T will migrate systems and applications to one of the two DHS Data Centers.
- S&T will develop a power-management scheme that allows for optimal use of equipment, lighting, and environmental controls.
- USCG will study the feasibility of leasing computers, with language in the contract that requires the vendor to recycle unusable equipment in an environmentally sound manner, and have a take-back program for used, refurbished equipment.
- USCG will recycle through UNICOR, ensuring that environmentally sound end-of-life practices are followed.
- USCIS will create a reporting system for tracking and reporting electronic property disposal actions.
- USCIS will establish and implement a USCIS-wide integrated reporting systems for EPEAT purchasing results.

Long Term (FY2018-FY2021)

- CIO will consider incorporating technologies like putting the lights on timers, using artificial intelligence in computing platforms so that they shut down portions of the systems during low periods of utilization, and other technologies to help reduce energy costs, reduce the DHS carbon footprint and extend the lifecycles of infrastructure components.
- NPPD will consider incorporating other technologies such as putting the lights on timers, using artificial intelligence in our computing platforms so they shutdown portions of the systems during low period and other technologies that reduce energy use.

- TSA will increase use of virtualization to increase the efficiency of the server operations.
- USCIS will develop and implement a system for tracking progress in three life cycle phases: purchasing, operations and maintenance, and end of life.
- USCIS will consider incorporating technologies like shutting down portions of the systems during low periods of utilization and using technologies to reduce energy costs, reduce its carbon footprint, and extend the life of infrastructure components.

d. Positions

At the Department level there are no positions dedicated solely to electronic stewardship. The Environmental Manager, Energy Manager, CIO and CPO, in addition to their other tasks, manage the initiatives and requirements for electronic stewardship.

DHS Components:

- At NPPD, CBP, FLETC, ICE, S&T, TSA, USCG, USCIS, and USSS: There are currently no positions dedicated to electronic stewardship initiatives. Several personnel support these initiatives part time. The responsibility to address these requirements is shared amongst several organizations. For CBP in FY12, FTEs will be created to replace diverted FTEs during FY11.

- Staff within the S&T CIO is responsible for ensuring purchases of EPEAT and FEMP products that contribute to meeting requirements for electronic stewardship, and CAO staff report to the EPA through the Federal Electronics Challenge (FEC) program.

- For TSA, the current electronics stewardship program is carried out by existing staff and contractor support in OIT, OPM, and OSHE.

- For USCIS, the CIO, CAO, and COCO, in addition to other tasks, manage the initiatives and requirements for electronic stewardship.

- At FEMA, it is not possible to accurately determine the total amount of positions/resources dedicated to this goal. FEMA will work with DHS to develop a procedure to report positions and resources associated with this goal by the end of FY 2011.

e. Planning table

The following planning table was developed based on input provided by the Components in their OSPPs and the DOE FEMP Annual GHG and Sustainability Data Reports, among other sources.

Table 19: DHS Electronic Stewardship and Data Center Management

ELECTRONIC STEWARDSHIP AND DATA CENTERS	Unit	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15
Percent of electronic product acquisition covered by current Energy Star specifications that must be energy-star qualified	%	90%	90%	95%	hold	hold	hold
Percent of covered electronic product acquisitions that are EPEAT- registered	%	99.14%	95%	hold	hold	hold	hold
Percent of covered electronic product acquisitions that are FEMP- designated	%	95%	95%	95%	hold	hold	hold
Percent of agency, eligible PC, Laptops, and Monitors with power management actively implemented and in use	%	92%	95%	100 %	hold	hold	hold
Percent of agency, eligible electronic printing products with duplexing features in use	%	54%	95%	100 %	hold	hold	hold
Percent of electronic assets covered by sound disposition practices	%	100%	hold	hold	hold	hold	hold
Percent of agency data centers independently metered, advanced metered, or sub-metered to determine monthly (or more frequently) PUE.	%	90%	90%	100 %	hold	hold	hold
Reduction in the number of agency data centers	#	5	hold	hold	hold	hold	hold
Percent of agency data centers operating with an average Central Processing Unit utilization greater than 65%	%	40%	50%	75%	hold	hold	hold
Maximum annual weighted average PUE for agency.	#	TBD	TBD	TBD	TBD	TBD	TBD

f. Department status

The Department is updating Directive 025-01 *Sustainable Practices for Environmental, Energy and Transportation Management* to reflect the requirements set forth by EO 13514 and establish policy for electronic stewardship and data centers. The Directive currently establishes policy for purchasing EPEAT-registered electronic products, enabling ENERGY STAR® features on agency computers and monitors, extending the useful life of electronic equipment and using environmentally sound practices with respect to disposition of electronic equipment that has reached the end of its useful life.

DHS continues to use the two Department-wide contracts established for procuring information technology products and services under the Enterprise Acquisition Gateway for Leading Edge Solutions (EAGLE) and First Source programs. Both programs were modified in FY 2009 to incorporate the latest FAR requirements for EPEAT purchases. Additionally the modification included requirements for the vendors to provide purchase results.

The Department has closed the following data centers:

- SAVVIS - Commercial Hosting Center, Herndon, VA;
- Commercial Hosting Facility, Plano, TX;
- Department t of Justice Data Center, Rockville, MD;
- Department of Justice Data Center, Dallas, TX; and
- TSA Headquarters, Arlington, VA.

g. Return on investment

No projects have been cancelled or suspended due to a lower than expected ROI.

h. Highlights

DHS uses two Department-wide contracts established for procuring information technology products and services under the EAGLE and First Source programs. First quarter reporting in FY 2010 indicated that 92 percent of electronic product purchases were EPEAT certified.

DHS Components Successes:

- FLETC was recognized by the Office of the Federal Environmental Executive and EPA and EPA with two Federal Environmental Challenge Awards for its outstanding electronics management program. The Brunswick campus will receive the Gold Award and the Cheltenham campus will receive the Bronze Award.

- CBP updated the Technology Insertion Process to specifically add ENERGY STAR® and other energy conservation criteria to the process. Energy conservation is now one of the selection criteria that must be taken into consideration when considering new technologies for adoption within CBP.

- ICE implemented an enterprise-wide Power Management Energy Initiative for all computers and monitors with cost savings and GHG emissions reductions. ICE was recognized by the FEMP's "You have the Power" Award.

- S&T participates in the EPA's FEC, which provides an internal mechanism to track S&T electronics stewardship practices, and the reporting of which contributes to the Government-wide evaluation of Federal electronics practices.

- TSA's Electronic Stewardship program has resulted in TSA winning the White House Closing the Circle Award (2008) and multiple other awards.

- USSS initiated a pilot program to evaluate and monitor policy regarding automatic shut down for personal computers.

DHS Components Challenges:

- USCIS receives very limited environmental funding which is used for outreach and educational awareness materials. The success of sustainable operations is wholly dependent on proactive employee efforts and programs operating within existing budgets; USCIS focuses on employee environmental awareness, promoting self-empowerment and environmental stewardship.

8. GOAL 8: Agency Innovation & Government-Wide Support

a. Goal description

The Department is committed to institutionalizing sustainability into all facets of the DHS mission. DHS will strive to incorporate sustainable practices into everyday practices across the Department beyond the EO 13514 requirements. To achieve this goal, the Department will develop innovative policies, guidance, projects, and procedures.

b. Department lead for goal

The SSO, as the designated Department lead, will direct the activities of the Sustainability Council for target development, implementation and oversight.

c. Implementation approach and opportunities

The following are implementation methods and tasks necessary to achieve this goal:

- The Department will implement organizational changes to realign existing functions to integrate sustainable practices into all Departmental processes and procedures;

- The Department will provide the staff and systems needed to manage E.O. 13514 compliance, establish accountability measures and report regularly on sustainability benchmarks;

- The Department will empower personnel to solve tough sustainability challenges, and allow their solutions to have an appropriate impact on the resolution of those challenges;

- LE Components, CBP, ICE, TSA, USCG, and USSS can lead the country in adapting sustainable practices, from using sustainable fueled vehicles (as Secretary Napolitano's Efficiency Review calls for) to utilizing renewable energy sources;

- The Department will align with state, local, and tribal LE entities to facilitate the exchange of sustainability practices, and provide a forum for demonstrating credible solutions to enable their adoption: and

- DHS Components may have the opportunity to capitalize on their daily interaction with the public and develop strategies to benefit the Department's own operations by publicizing, when possible and cost-effective, sustainability efforts to those who they serve.

In order to achieve this goal, DHS and its Components have developed a high level approach that includes short-term, medium-term and long-term activities/initiatives.

Short Term (FY2010-FY2012)

- SSO will coordinate the security standards of the Interagency Security Committee with the Sustainability Plan to reinforce and advance the sustainability interests of the EO and DHS.

  Status: (Action Pending)

- CXOs will communication the SSO's challenge that all DHS employees work towards DHS sustainability goals.

  Status: (Action Pending)

- CXOs will communicate the SSO's desire to empower employees to solve tough sustainability challenges and identify solutions that have a positive impact on the resolution of those challenges.

  Status: (Action Pending)

- CAO and CHCO will work to identify and implement general sustainability training courses for DHS personnel.

  Status: (Completed) CAO and CHCO identified all the sustainability training currently available on DHScovery. These courses provide general office type awareness more suited towards the private sector.

- CHCO will define the framework for personnel sustainability certifications and qualifications and assess personnel sustainability certifications and qualifications.

  Status: (Ongoing) The USM is working to define the requirement for any mandatory training requirements that would eventually lead to certification.

- CHCO will implement mandatory sustainability training at various levels.

  Status: (Ongoing) Initial plans call for developing general employee sustainability awareness training and then develop sustainability training geared towards specific career fields.

- CHCO will implement Department-wide sustainability awareness training via a learning management system (i.e., DHScovery).

  Status: (Ongoing) The initial employee awareness training is under development. Once approved, it will be made available on DHScovery.

- DHS will work to make buildings that do not need to be gated or closed off for security reasons, open and integrated with the surrounding community.

  Status: (Action Pending)

- DHS will complete the Nebraska Avenue Complex (NAC) and St Elizabeth's studies, review the recommendations and develop an implementation plan.

  Status: (Ongoing) The NAC Study is scheduled to be completed in May and the St Elizabeth's Study is scheduled to be completed in late summer. DHS will review the recommendations once the reports are completed and develop an implementation plan. NAC and St Elizabeth's Studies will be completed by May 2011.

- DHS will adopt the Sustainable Sites Initiative guidelines for rainwater, storm water management, and ecosystem services at St. Elizabeth's.

  Status: (Ongoing) Plans for construction and renovation at St. Elizabeth's include incorporation of the Sustainable Sites Initiative guidelines.

Medium Term (FY2013-FY2017)

- The SSO will establish a Department-wide awards program for sustainability and provide incentives for winners.
- CHCO with assistance from CAO will develop sustainability training courses for DHS and component employees that are accessible via the DHScovery (on-line) training system.
- CHCO will assess personnel sustainability certifications and qualifications.
- CHCO will include introductory sustainability training in new employee orientation.
- USCIS will establish an agency-wide awards program for sustainability.
- USCIS will identify methods to provide a certificate to reward the successful completion of sustainability training/refresher training for P-Card holders.

Long Term (FY2018-FY2021)

- DHS will develop an employee engagement plan.
- CHCO will work with CPO to develop and implement mandatory acquisition workforce sustainability training and qualifications.
- CHCO will identify, with CFO, sources which will provide a certificate to document the successful completion of sustainability training/refresher training for micro-P Card holders.
- DHS, when possible, work with regional, city, and local transportation officials to extend metro transit service to locations close to the main entrance of facilities, ideally by rail, to ensure a feeling of convenience and safety for commuting workers.

d. Positions

At the Department level there are no positions dedicated solely to this goal. The Environmental Manager, Energy Manager, and CXOs, in addition to their other tasks, manage the initiatives and requirements for this goal.

DHS Components:

- At NPPD, CBP, FLETC, ICE, S&T, TSA, USCG, USCIS, and USSS: There are no positions dedicated solely to this goal. Several personnel support innovative initiatives part-time. In FY12, CBP will create FTEs to replace those diverted during FY11.

- For S&T, sustainability initiatives fall to the existing ESH staff. S&T is examining its need for addition positions and will request them in future budgets, if they are needed.

- For TSA, the EMS and EMPs are managed by existing OSHE staff and contractor support. When applicable, staff from other program offices may be involved in implementing the EMP.

- For USCIS, the CXOs, in addition to other tasks, manage the initiatives and requirements for this goal.

- At FEMA, it is not possible to accurately determine the total amount of positions/resources dedicated to this goal. FEMA will work with DHS to develop a procedure to report positions and resources associated with this goal by the end of FY11.

e. Planning table

The following planning table identifies the number of DHS initiatives that support agency innovation and Government-wide support.

Table 20: DHS Agency Innovation and Government-Wide Support

AGENCY INNOVATION AND GOVERNMENT-WIDE SUPPORT	Units	FY 10	FY 11	FY 13	….	FY 20
Programs, Projects, Initiatives that support Government-wide efforts: • Federal Electronics Stewardship Work Group • Sustainable Acquisition Materials Management interagency work group • Interagency Sustainability Work Group • FedCenter Board • EO 13514 Siting Work Group • Chesapeake Bay Committee and Work Group • Federal Facilities Workgroup • Presidential Ocean Policy Task Force • Federal Office Directors Workgroup • DOE's FEMP • DOE's Clean Cities Coalition	#	11	11	11	…	11

f. Department status

The Department is specifically identified in EO 13508-*Chesapeake Bay Protection and Restoration* as an agency with land management responsibilities in the watershed. DHS' Chief Administrative Officer is appointed as the Federal Leadership Council representative, with the Director of Occupational Safety & Environmental Programs as the alternate. OSEP staff employees are active members of the Federal Office Directors Workgroup. This group's primary focus is setting the goals and actions in accordance with the Executive Order. In February 2010, staff members attended the week long work session at the USFWS National Training Center where the goals of the EO were developed. DHS is an active member of the subgroup - Federal Facilities Workgroup. This group is producing documents for the federal facilities in the watershed concerning guidance with the Watershed Implementation Plan II (WIP II) Guide for Federal Facilities (Total Maximum Daily Loading), providing advice to the states on the State WIP II Guide and reporting tools for federal agencies with facilities in the watershed. DHS is planning to conduct Stormwater Pollution Prevention Assessments at its facilities in the watershed using the Section 502 Guide (i.e., Guidance for Federal Land Management in the Chesapeake Bay Watershed). These assessments will be used to identify, estimate funding and prioritize projects in the watershed that will decrease stormwater runoff, increase reuse of rainwater and decrease pollutants entering the bay.

The Department has made significant progress in advancing programs for environmental compliance and management, energy and water conservation, and transportation management since its inception just seven years ago. Strategic plans for the CAO, OSEP, ALM, and this Plan (i.e., Sustainability Plan) provide a secure foundation for moving to the next level of stewardship through implementation of sustainable practices across the Department.

The Department is updating Directive 025-01 Sustainable Practices for Environmental, Energy and Transportation Management to reflect the requirements set forth by EO 13514. This Directive establishes policy to enable DHS will develop and implement sustainable practices programs to ensure that all operations and necessary actions are carried out in an environmentally, economically, and fiscally sound manner and will meet the DHS goals, targets and objectives.

The Department is developing a Sustainable Practices Directive Guidance Manual to establish sustainable practices guidance across the Department. This Manual will provide guidance on implementing the requirements of the Directive and assist the Department in considering the potential environmental impacts of their missions and operations.

The Department is developing an employee engagement strategy for sustainability. This strategy focuses on improving employee communications and training in support of the Sustainability program. This initiative includes:

- Leadership messages;

- Sustainability web presence;
- Training; and
- DHS Sustainability Handbook.

g. Return on investment

No projects have been cancelled or suspended due to a lower than expected ROI.

h. Highlights

DHS established the DHS Climate Change Adaptation Task Force in 2010 as a broadly representative, intradepartmental group to identify and assess the impact that climate change could have on the Department's missions and operations. The Task Force produced the "DHS Climate Change Adaptation Task Force Report" that includes a summary of Task Force activities and analysis of key risks identified in case study regions as well as potential recommendations for how DHS should address climate change moving forward. In addition, DHS established a CCAESC comprised of representatives at the Component head or Deputy-level from the USCG, FEMA, USCIS, NPPD, S&T, and DHS HQ to begin efforts of integrating climate change adaptation into the DHS culture and daily operations and implement the recommendations set forth by the Task Force.

The Department has partnered with the DOE's FEMP and Clean Cities Coalitions to pilot an effort for conducting analysis of DHS fuel use patterns to leverage new alternative fuel infrastructure development at retail gas stations. Five Clean Cities Coalitions throughout the Country will work with DHS Field Level Fleet Managers to determine how the data can be used to encourage retailers to invest in E85 infrastructure utilizing DHS (and eventually other agencies) to anchor demand for the fuel.

DHS and its Components participated in EO 13514 Siting Work Group meetings and assisted in developing draft siting recommendations for OMB review. This draft document was forwarded to OMB and CEQ for review and issuance. DHS also participates in a Chesapeake Bay Committee and work group to oversee the development and coordination of programs and activities, including data management and reporting for the protection and restoration of the Chesapeake Bay. This Committee manages the development and implementation of strategies and program plans for the watershed and ecosystem of the Bay.

The Department invested approximately $18 million on direct obligations, ESPCs, or UESCs in 2010, representing 14.5% of total facility energy costs. Alternative financing represented 10.7% of total facility energy costs. In addition, $328,500 was invested on training in 2010.

DHS Components Successes

- S&T began development of a Safety, Health and Environmental Management System based upon the ISO 14001 and ANSI Z 10 models at headquarters as well as PIADC, TSL and NUSTL, which will provide a mechanism to identify requirements, track progress, and report.

DHS Component Challenges:

- The shift to sustainability will require greater attention from all Component organizations and activities. Over the years, other Component functions have largely relied on the environmental and safety staff to address these areas of concern. Components recognize that in order to be successful, sustainability must be integrated into the Components' culture. Every employee needs to understand, participate in and contribute to the attainment of sustainability goals. This culture shift will take years to be fully imbedded into the Components' operations, and training and incentives will be necessary.

- FEMA's focus is on emergency response and working under adverse conditions; therefore, sustainability may not always be a priority. The challenge to making sustainability successful at FEMA will be accomplished by integrating sustainability into the planning process so that it becomes routine for employees.

Section 3: Agency Self Evaluation

Each agency's total response for this section should be limited to one or two pages.

For all agencies: Please answer 'yes' or 'no' to the following 5 key questions. If the answer is 'no', please provide an explanation in the accompany text.

Does your Sustainability Plan incorporate and align sustainability goals, GHG targets and overarching objectives for sustainability with the Agency Strategic Plan?	Yes
Does it provide annual targets, strategies and approaches for achieving the 2015 and 2020 goals?	Yes
Is the Sustainability Plan consistent with the FY2012 President's Budget?	Yes
Does the Sustainability Plan integrate all statutory and Executive Order requirements into a single implementation framework for advancing sustainability goals along with existing mission and management goals, making the best use of existing and available resources?	Yes
Does your plan include methods for obtaining data needed to measure progress, evaluate results, and improve performance?	Yes

Other Key Questions for 2011:

1. Did your agency meet by 12/30/10 due date and/or is it now able to demonstrate comprehensive implementation of the EO 13423 Electronic Stewardship goals?

- Acquire at least 95% EPEAT-registered electronics
- Enable ENERGYSTAR® or power management features on 100% of eligible PCs
- Extends the life and/or uses sound disposition practices for its excess or surplus electronics

DHS can demonstrate compliance with all the requirements except enabling power management features on 100% of eligible PCs. The CIO has established a team with representatives from all the Components that work to track efforts to meet the power management performance standards. The following outline the corrective actions:

Microsoft Active Directory Administrative Group Policies and third party software configuration settings must be reviewed by CIO for independent verification and validation for compliance and auditing requirements.

Components must provide quarterly to CIO, an automated software generated report for eligible monitor and computer systems power management settings.

OCIO will collaborate with components to improve analytical auditing and reporting compliance systems for power management policies.

2. Is your agency tracking and monitoring all of its contract awards for inclusion of requirements for mandatory federally-designated green products in 95% of relevant acquisitions?

Currently CPO reviews 5% of eligible contracts to determine if 95% of the contracts include requirements for mandatory federally-designated green products. This information is reported on the semi-annual OMB Sustainability Scorecard. CPO will begin performing these reviews quarterly.

3. Has your agency completed energy evaluations on at least 75% of its facilities?

DHS monitors the Department of Energy Compliance Tracking System to ensure 75% of its facilities completed energy evaluations. Results from the latest inputs will not be available until 7/1/11 however DHS expects to be on track.

4. Will your agency meet the deadline of October 1, 2012 (EPAct'05 Sec 103) for metering of energy use? (Agency should provide current status of buildings metered and plans for meeting the deadline).

- DHS is making progress in metering all of the buildings that are appropriate to meter in each agencies' inventory. In 2010 52.1% of appropriate buildings were metered, with 20.9% served by advanced meters. The actual level of appropriate metering is much higher, but because of the way the US Coast Guard currently meters at the campus level the number of standard meters is underestimated. Advanced meters account 20.9% of DHS electricity generation, with the remainder served by standard meters. Again, the number of buildings and amount of electricity served by standard meters is under-estimated because of the campus-level metering common with the USCG. Over 96% of electricity is metered when these differences are considered. DHS developed a metering plan for the whole agency in August 2006. CBP, FEMA, TSA, and USSS are developing implementation plans consistent with the DHS-wide plan, while FLETC and USCG have implementation plans in place. A metering plan will not be developed for Science and Technology's PIADC facility as it is being replaced by a new facility, and its anticipated lifespan renders metering upgrades not lifecycle cost effective.

5. If your agency reports in the FRPP, will it be able to report by December 2011 that at least 7% of its inventory meets the High Performance Sustainable Guiding Principles?

- DHS will not be able to demonstrate that 7% of its buildings meet the High Performance Sustainable Guiding Principles. It is estimated that DHS will meet the 7% in FY 2013 or 2014. This is dependent on receiving full funding for the St. Elizabeth's construction and renovation project.

Appendix 1: Acronyms and Abbreviations

Acronym	Definition
AFV	Alternative Fuel Vehicle
AMP	Asset Management Plan
APP	Affirmative Procurement Plan
AWS	Alternative Work Schedule
BTU or Btu	British Thermal Unit
C&D	Construction and Demolition
CAO	Chief Administrative Officer
CBP	Customs and Border Protection
CCAESC	Climate Change Adaptation Executive Steering Committee
CDC	Centers for Disease Control and Prevention
CDP	Center for Domestic Preparedness
CEQ	Council on Environmental Quality
CFC	Chlorofluorocarbon
CFO	Chief Financial Officer
CHCO	Chief Human Capital Officer
CHP	Combined Heat and Power
CIO	Chief Information Officer
COCO	Chief of Contracting Office
CPO	Chief Procurement Officer
CSO	Chief Security Officer
DART	Development of Agency Reduction Targets
DHS	Department of Homeland Security
DST	Decision Support Tool
EA	Environmental Assessment
EAGLE	Enterprise Acquisition Gateway for Leading Edge Solutions
ECM	Energy Conservation Measures
EIS	Environmental Impact Statement
EISA	Energy Independence and Security Act
ELS	Earnings and Leave Statement
EMS	Environmental Management System
EO	Executive Order
EPA	Environmental Protection Agency
EPAct	Energy Policy Act
EPEAT	Electronic Product Environmental Assessment Tool
EPP	Environmentally Preferable Purchasing
ESC	Executive Steering Committee
ESPC	Energy Savings Performance Contract
FAR	Federal Acquisition Regulation
FAST	Federal Automotive Statistical Tool
FEC	Federal Electronics Challenge
FEMA	Federal Emergency Management Administration
FEMP	Federal Energy Management Program
FFV	Flex-Fuel Vehicles
FLETC	Federal Law Enforcement Training Center

Acronym	Definition
FTE	Full Time Employee
FY	Fiscal Year
Gal	Gallon
GHG	Greenhouse Gas
GPP	Green Procurement Program
GSA	General Services Administration
GSF	Gross Square Feet
HCFC	Hydrochlorofluorocarbon
HSAM	Homeland Security Acquisition Manual
HtW	Home-to-Work
HVAC	Heating, Ventilation and Air Conditioning
ICE	Immigration and Customs Enforcement
IPG	Integrated Planning Guidance
ISO	International Organization for Standardization
IT	Information Technology
LE	Law Enforcement
LED	Light Emitting Diodes
M&V	Measurement and Verification
MSW	Municipal Solid Waste
mtCO2e	Metric tons of Carbon Dioxide Equivalent
NAC	Nebraska Avenue Complex
NEPA	National Environmental Policy Act
NPPD	National Protection and Program Directorate
NUSTL	National Urban Security Technology Laboratory
O&M	Operations and Maintenance
OBMS	Office of Building and Management Services
OFRES	Office of Field Real Estate Services
OIT	Office of Information Technology
OMB	Office of Management and Budget
OPM	Office of Personnel Management
OPO	Office of Procurement Operations
OSHE	Occupational Safety, Health, and Environment
OSHE-EM	Occupational Safety, Health, and Environment Division Environmental Management
OSPP	Operational Sustainability Performance Plan
P Card	Purchase Card
PIADC	Plum Island Animal Disease Center
PPA	Power Purchase Agreement
PRMS	Program Reporting Management System
PUE	Power Usage Effectiveness
ROI	Return on Investment
RTC	Rowley Training Center
S&T	Science and Technology Directorate
SAO	Senior Accountable Officer
SETF	Sustainability Efficiency Task Force
SF	Square Feet or Square Footage

Acronym	Definition
SFO	Solicitation for Offers
SHEMS	Safety, Health and Environmental Management System
SILC	Shore Infrastructure Logistics Center
SRPO	Senior Real Property Officer
SSO	Senior Sustainability Officer
SWG	Sustainability Work Group
TBD	To Be Determined
T&D	Transmission and Distribution
TMIS	Travel Management Information Service
TSA	Transportation Security Administration
TSL	Transportation Security Laboratory
UESC	Utility Energy Services Contract
USCG	United States Coast Guard
USCIS	United States Citizenship and Immigration Services
USGBC	US Green Building Council
USM	Under Secretary for Management
USSS	United States Secret Service
VAM	Vehicle Allocation Methodology
VMT	Vehicle Miles Traveled
WG	Working Group