

**Department of the Interior**

**Strategic Sustainability Performance Plan**

A handwritten signature in black ink, appearing to read "Rhea Suh", is written over a horizontal line.

**Rhea Suh**

**Assistant Secretary - Policy, Management and Budget  
and  
The Department's Senior Sustainability Officer**

Date June 2, 2010

Revised August 31, 2010

## Table of Contents

---

Section 1: Agency Policy and Strategy .....	1
I. Agency Policy Statement .....	1
II. Sustainability and the Agency Mission .....	2
III. Greenhouse Gas Reduction Goals .....	6
IV. Plan Implementation .....	7
1. Internal Coordination and Communication .....	7
2. Coordination and Dissemination of the Plan to the Field .....	10
3. Leadership and Accountability .....	11
4. Agency Policy and Planning Integration .....	12
5. Agency Budget Integration .....	17
6. Methods for Evaluation of Progress .....	17
V. Evaluating Return on Investment .....	18
1. Economic Lifecycle Cost / Return on Investment .....	19
2. Social Costs and Benefits .....	20
3. Environmental Costs and Benefits .....	20
4. Mission-Specific Costs and Benefits .....	21
5. Operations and Maintenance and Deferred Investments (Real Property Deferred Maintenance) .....	21
6. Climate Change Risk and Vulnerability .....	23
VI. Transparency .....	24
Section 2: Performance Review & Annual Update .....	26
I. Summary of Accomplishments .....	26
II. Goal Performance Review .....	29
1. GOAL 1: Scope 1 & 2 Greenhouse Gas Reduction .....	30
2. GOAL 2: Scope 3 Greenhouse Gas Reduction .....	40
3. GOAL 3: Develop and Maintain Agency Comprehensive Greenhouse Gas Inventory .....	44
4. GOAL 4: High-Performance Sustainable Design / Green Buildings .....	45
5. GOAL 5: Regional and Local Planning .....	53
6. GOAL 6: Water Use Efficiency and Management .....	55
7. GOAL 7: Pollution Prevention and Waste Elimination .....	59
8. GOAL 8: Sustainable Acquisition .....	64
9. GOAL 9: Electronic Stewardship and Data Centers .....	67
10. GOAL 10: Agency Innovation .....	75
Section 3: Agency Self-Evaluation .....	80
Section 4: Acronyms List .....	82
Section 5: References / Links .....	84
Appendix 1: Summary of Planning Tables for Goal Performance Measures .....	85
Appendix 2: Agency Leads for Goal .....	89
Appendix 2: Agency Leads for Goal cont. ....	90

## **Section 1: Agency Policy and Strategy**

---

### **I. Agency Policy Statement**

The Honorable Nancy Sutley  
Chair, Council on Environmental Quality  
730 Jackson Place, N.W.  
Washington, D.C. 20503

Dear Ms. Sutley,

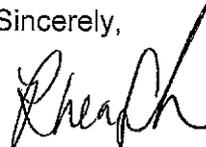
The Department of the Interior (Department) is fully dedicated, through its mission, to conserve and protect the nation's natural resources. Implementing sustainability in Department operations is consistent with and complementary to the Department's overarching mission. The Strategic Sustainability Performance Plan (SSPP) supports Interior's mission by integrating sustainability within Department operations and reducing our green house gas (GHG) emissions which, in turn, further demonstrates Interior's commitment to conservation, protection, and the responsible use of natural resources.

The Department is committed to meeting and or exceeding compliance with environmental and energy statutes, regulations, executive orders (EOs), and other applicable requirements. This commitment is evidenced by the implementation of a department-level environmental management system (EMS) to manage and track progress on achieving the environmental and energy performance goals in EO 13514 and EO 13423.

The foundation for the EMS is the Department's Sustainability Council (Council). The Council is chaired by the Agency Senior Sustainability Officer and supported by bureau and office Senior Sustainability Officers, an implementation committee, and technical work groups that include representatives from all bureaus and appropriate offices. The Council is the implementing and oversight body for the EMS and SSPP. The Council coordinates and integrates departmental programs and staff to achieve results. The SSPP (Section 1.IV.) provides details on how the Council will operate to achieve departmental goals and performance objectives.

The Department is excited about the commitments we have made, the priorities we have set, and the resources we have identified to move us forward in our sustainability efforts. These efforts are integral to the Department's mission and we look forward to enhancing our ability to conserve, protect, and ensure the responsible use of our nation's natural resources.

Sincerely,



Rhea Suh  
Assistant Secretary  
Policy, Management and Budget

## II. Sustainability and the Agency Mission

The U.S. Department of the Interior's mission is: to protect and manage the nation's natural resources and cultural heritage; provide scientific and other information about those resources; and honor its trust responsibilities or special commitments to American Indians, Alaska Natives, and affiliated island communities.

The Secretary has identified the following initiatives for the Department: Each initiative supports the Department's mission and has elements that support sustainability.

- Increasing the potential for production and transmission of renewable energy resources on Department managed lands in balance with continued development of conventional energy and value for the public
- Establishing a working multibureau approach for climate change adaptation on our lands
- Enabling the capacity to increase water conservation
- Protecting and enhancing our treasured landscapes and natural resources
- Strengthening Native American and Alaskan Native communities
- Fostering a greater sense of stewardship in our youth for natural and cultural resources

The Secretary supported many of these initiatives with secretarial orders (SO) some of which support the Department's sustainability efforts (e.g., Order No. 3297, Feb 22, 2010: Department of the Interior WaterSmart Program).

The SOs include:

- ORDER NO. 3294, Jan 6, 2010: Energy Management Reform. This SO establishes departmental policy regarding reform of its energy management. It also establishes the Energy Reform Team within the Office of the Assistant Secretary, Land and Minerals management.
- ORDER NO. 3285A1, Feb 22, 2010: Renewable Energy Development by the Department of the Interior. This SO establishes the development of renewable energy as a priority for the Department of the Interior and establishes a departmental Task Force on Energy and Climate Change.
- ORDER NO. 3289A1, Feb 22, 2010: Addressing the Impacts of Climate Change on America's Water, Land, and Other Natural and Cultural Resources. This SO establishes a Department-wide approach for applying scientific tools to increase the understanding of climate change and to coordinate an effective response to its impacts on tribes and on water, land, fish and wildlife, and cultural heritage resources the Department manages.

- ORDER NO. 3297, Feb 22, 2010: Department of the Interior WaterSmart Program – Sustain and Manage America’s Resources for Tomorrow. The purpose of this SO is to secure and stretch water supplies for use by existing and future generations to benefit people, the economy, and the environment, and identify adaptive measures needed to address climate change and future demands.
- ORDER NO. 3290, Sep 24, 2009: Authorizes the Secretary to enter into grants, cooperative agreements, and other agreements to fund up to 50 % of the cost to plan, design, and construct improvements that will conserve water, increase water use efficiency, or enhance water management at existing water supply projects within states identified in the Reclamation Act of 1902, as amended.

For a full description of each Secretarial Order please visit:  
[http://elips.doi.gov/app\\_SO/index.cfm?fuseaction=chroList](http://elips.doi.gov/app_SO/index.cfm?fuseaction=chroList)

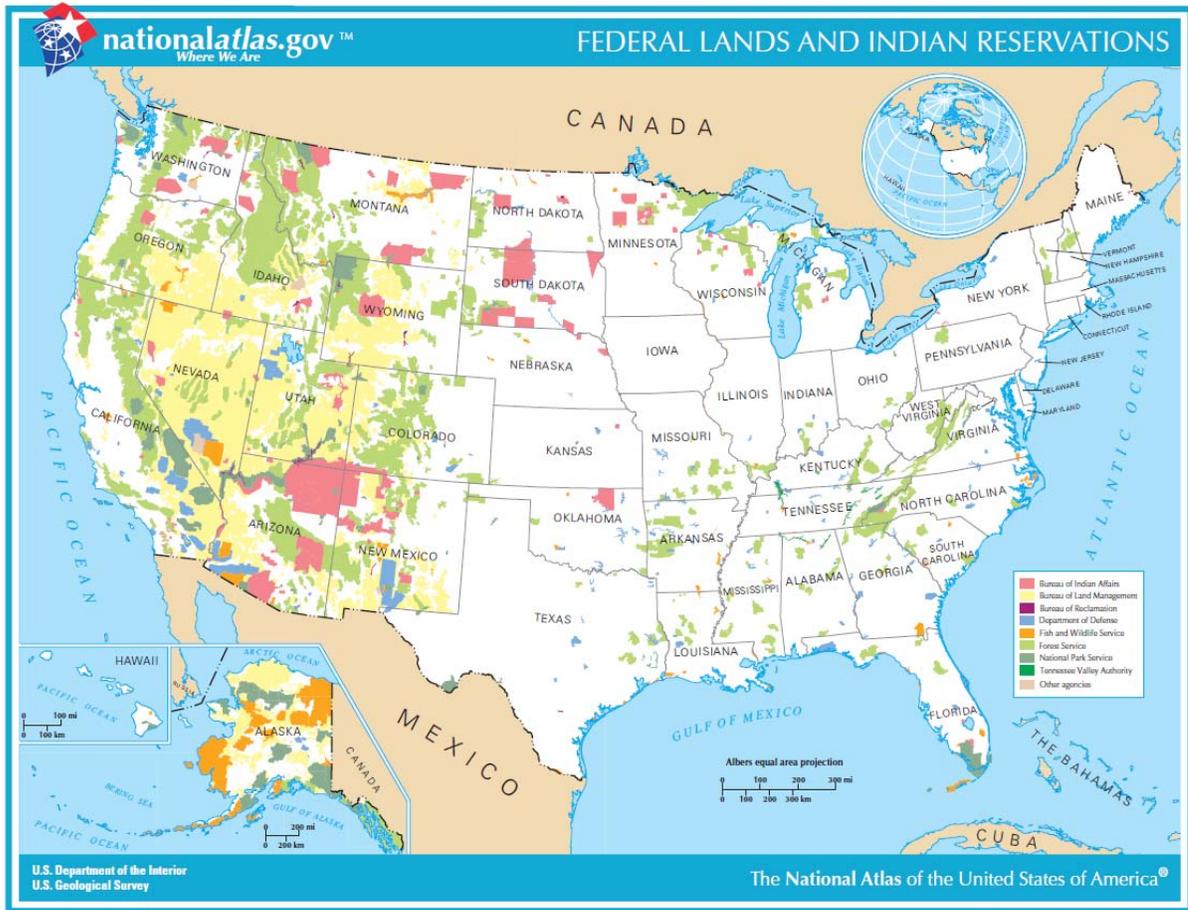
As evidenced by the Secretary’s declaration of initiatives and supporting SOs, the Department is taking great strides to create a sustainability ethic that supports the Department’s mission. Reducing the Department’s environmental impact is another step in support of this government-wide effort. Therefore, the Secretary has committed to the following:

- Implementing a comprehensive **New Energy Frontier** strategy that creates jobs, reduces the Nation’s dependence on foreign oil, and reduces climate change impacts.
- Confronting the realities of climate change and launching an integrated strategy for **Climate Change Adaptation**.
- Developing a 21st Century conservation agenda that protects **Treasured Landscapes** through integrated ecosystem efforts and the Land and Water Conservation Fund.
- Tackling the water challenges facing the country with a new strategy to **Sustain and Manage America’s Resources for Tomorrow**.
- Engaging America’s **Youth in Natural Resources** to foster a greater sense of stewardship for natural and cultural resources.
- **Honoring trust responsibilities** with a focus on improving the quality of life for Indian communities.

Some of the challenges the Department faces in achieving the goals in this plan include the dispersed distribution of the Department’s programs and facilities; a

widely varied mission with multiple responsibilities; and data collection, management, and verification requirements.

The map below illustrates the extent of the land the Department manages.



The following statistics also illustrate the diverse mission of the Department:

- Manages 20% of land area in the United States
- Manages approximately 70,000 employees + approximately 240,000 volunteers
- Serves approximately 480 million visitors per year
- Supports 183 Indian Affairs schools and dormitories
- Produces 30% of US energy
- Protects 1,900 endangered or threatened species
- Conducts scientific research, on topics such as earthquakes, volcanoes, geology, water quality, and stream flows

This translates to department ownership and operation of approximately 47,000 buildings, 112,000 structures, and 33,000 vehicles at 2,400 locations across the

United States, Puerto Rico, and U.S. territories (FY 2009 Federal Real Property Profile). Examples of the Department's geographically dispersed, small, and remote work stations include:

- Bureau of Indian Affairs (BIA)
  - **564** federally recognized tribes with a service population of **1.9** million American Indians and Alaska Natives
  - **183** schools and dormitories educating approximately 42,000 elementary and secondary students
  - **30** tribal colleges, universities and post-secondary schools
  - **55** million surface acres and 57 million acres of subsurface trust lands
  - **18** million acres of trust forest land
  - **1,258** administrative buildings
  - **78** detention facilities
  - **15** revenue generating irrigation projects
  - **131** of the Department's 457 high and significant hazard dams
  - **60** million acres of wildland fire protection responsibilities
- Bureau of Land Management (BLM)
  - Manages **253** million acres of surface acres of public lands
  - Manages **700** million acres of subsurface mineral estate located throughout the country
- Bureau of Reclamation (Reclamation)
  - **476** dams
  - **58** hydroelectric power plants
  - **2,659** buildings maintained
- U.S. Fish and Wildlife Service (FWS):
  - **551** National Wildlife Refuges
  - Thousands of small wetlands and special management areas
  - **70** National Fish Hatcheries
  - **81** ecological services field stations
- Minerals Management Service (MMS)
  - Manages **1.7** billion outer continental shelf acres
- National Park Service (NPS)
  - **7,580** administrative and public buildings
  - **5,300** housing units
- U.S. Geological Survey (USGS)
  - Rents **176** General Service Administration (GSA) buildings
  - **100** earthquake monitoring locations worldwide
  - **7,600** stream-gauge field stations

For detailed information about the Department, visit:  
<http://www.doi.gov/facts.html>.

Implementing any uniform program across this culturally diverse and geographically dispersed Department is challenging.

The Department appreciates the opportunity to work with the Office of Management and Budget (OMB) and Council on Environmental Quality (CEQ) to address any resource issues (funding and or staff) associated with this plan.

The EO 13514 includes new data and reporting requirements. Current funding levels do not support developing new data collection capabilities or the staff and mechanisms necessary to collect and verify the data required to fulfill the requirements. Without accurate data, it will be difficult to know how well the goals are being implemented.

The Strategic Sustainability Council (Council) is the governing body of the department level environmental management system (EMS). It will serve as the forum to address EO 13514 implementation challenges as they emerge. The solutions to challenges will be vetted through the Council's technical work groups and if not solved, the challenges will be evaluated further to be addressed by the Council.

### **III. Greenhouse Gas Reduction Goals**

The Department of the Interior is committed to meeting the FY 2020 greenhouse gas (GHG) reduction goals it established as required by EO 13514. The Department's scope 1 and 2 GHG emissions reduction target is 20% relative to FY 2008, and the scope 3 GHG emission reduction target is 9.0% relative to FY 2008.

The Department's strategies to achieve scope 1 and 2 GHG emissions reductions by FY 2020 include:

- Reducing building energy intensity
- Reducing purchased electricity and increasing the use of renewable electricity
- Implementing on-site renewable energy generation projects
- Eliminating coal use
- Switching to natural gas, where available
- Reducing the use of fossil fuels in both buildings and fleet
- Consolidating the Department's data centers to reduce power consumption and cooling requirements of computer equipment

Specific strategies to achieve scope 3 GHG emissions reductions include:

- Reducing transmission and distribution losses through increased efficiencies in electricity consumption
- Promoting the use of lower-carbon travel alternatives for TDY travel
- Increasing the use of technology in lieu of face-to-face meetings, where possible, such as conference calls, videoconferences, and webinars
- Increasing recycling and reuse
- Promoting use of mass transit, carpooling, teleworking, and other lower-carbon commuting alternatives

The Department believes that focusing on these strategies will allow us to reach our goals. A detailed discussion of goals and milestones are included in Section II of this plan.

#### **IV. Plan Implementation**

In FY 2009, the Department initiated the development of a department-level EMS. The EMS follows the International Standards Organization (ISO) 14001 standard and is scheduled to be completed by the end of Q2 FY 2011 with an internal audit planned for Q1 FY 2011. The EMS is the Department's primary management tool to manage or address the impacts of activities on the natural and social environments, provide operational efficiencies for sustainable practices and environmental management, and proactively address future issues to reduce the Department's carbon footprint. The EMS will be the Department's management tool for the Strategic Sustainability Performance Plan (SSPP).

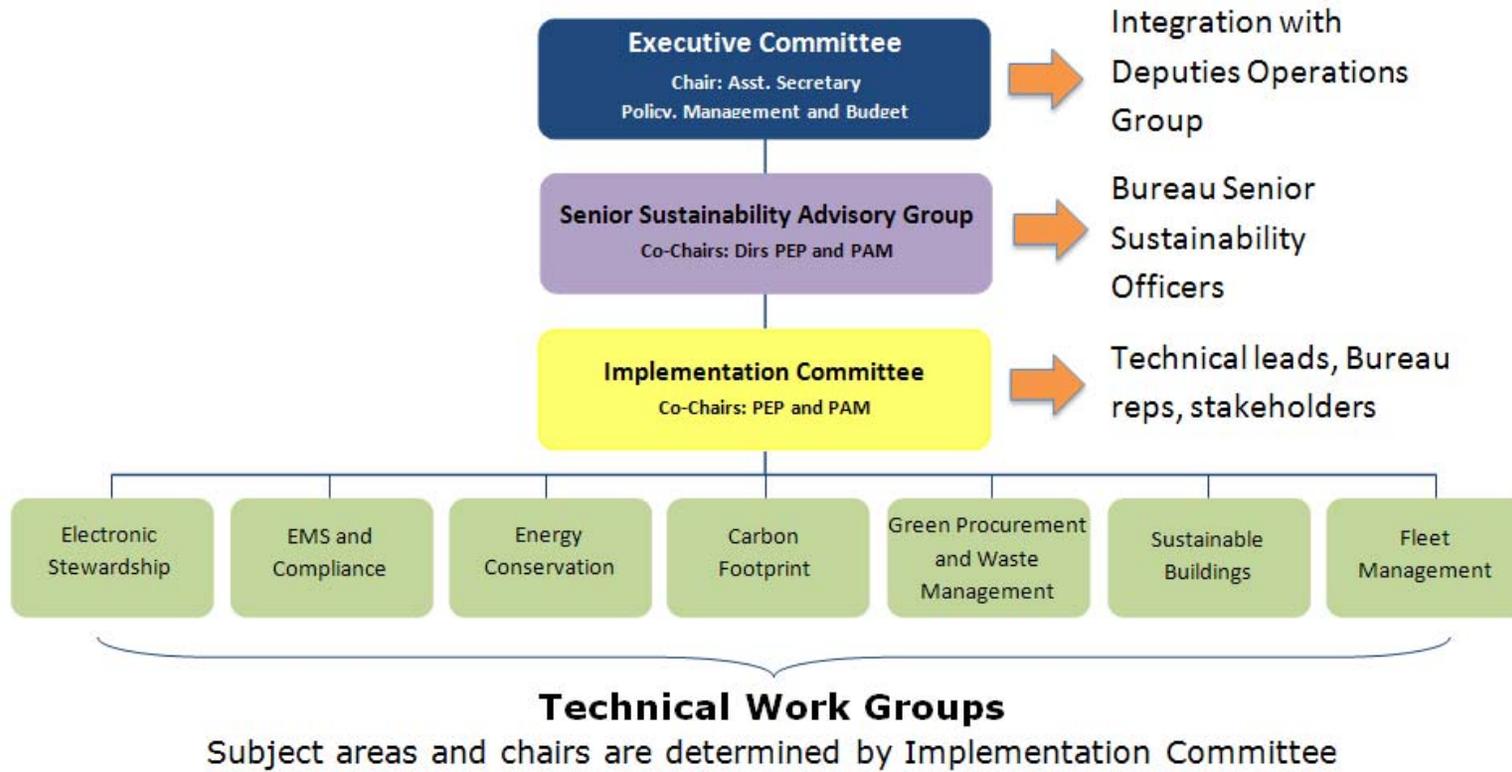
##### **1. Internal Coordination and Communication**

The governing body for the department-level EMS is the Sustainability Council (Figure 1). The Council is a multidisciplinary, collaborative decision-making forum responsible for promoting and achieving departmental goals for sustainability and environmental compliance. The Office of Environmental Policy and Compliance (OEPC) has the lead responsibility for implementing the department-level EMS and serves as staff support for the Council.

The Council is chaired by the Department's Senior Sustainability Officer (the Assistant Secretary for Policy, Management, and Budget) and includes cross-functional representation from departmental senior managers, bureau and office program managers, and technical work groups for sustainable practices and environmental compliance. The Council has a role in the development and management of the SSPP and department-level EMS, ongoing monitoring of the goals contained in the SSPP, and other regulatory and legal requirements that the Department manages through the EMS. Each Council component is discussed in the following sections.

**Figure 1. Sustainability Council Organization**

**SUSTAINABILITY COUNCIL ORGANIZATION**



## **A. Executive Committee**

The Executive Committee provides broad policy direction to the Council. The Executive Committee consists of Deputy Assistant Secretary and bureau/office director-level participation through the Deputies Operations Group.

The Executive Committee is chaired by the Department's Senior Sustainability Officer. The Executive Committee will meet at least once a year to participate in the annual management review that is the culmination of the EMS planning, implementation, and review cycle. The Executive Committee may convene at other intervals as deemed necessary to address issues requiring high-level review and approval. The Executive Committee reviews and approves the SSPP and EMS work plans, departmental policy for sustainability and environmental management and provides senior-level participation in regular operating matters of the Council through their representatives on the Senior Sustainability Advisory Group.

## **B. Senior Sustainability Officers Advisory Group**

The Senior Sustainability Officers Advisory Group (Senior Sustainability Advisory Group) is the Executive Committee's senior representation at the quarterly meetings of the Implementation Committee. Representation consists of bureau senior sustainability officers that serve as liaisons between the Implementation and Executive Committees. The Senior Sustainability Advisory Group, co-chaired by the Directors of OEPC and Office of Acquisition and Property Management (PAM), is responsible for providing senior-level guidance to the Implementation Committee on policy, procedures, and departmental goals and objectives for the EMS and SSPP, environmental compliance, and sustainable practices.\*

## **C. Implementation Committee**

The Implementation Committee is responsible for developing and managing the Department's progress on EMS, SSPP, statutory, regulatory, EOs, and other compliance and reporting requirements. Implementation Committee members represent their respective organizational and work group interests, contribute to actions to promote operational consistency department-wide and resolve impediments to timely advancement on sustainability and EMS goals. The Implementation Committee is co-chaired by OEPC and PAM. The Implementation Committee oversees SSPP progress and contributes to the development of courses of action for emerging issues.

The Implementation Committee membership is comprised of approximately 25 members, including the technical work group chairs, bureau and office EMS representatives, and approximately eight additional members from other stakeholder groups including Communications, Budget, Asset Management, and Office of Planning and Performance Management.

---

\* Sustainable practices are programs and goals identified in EO 13423 and EO 13514 including but not limited to electronic stewardship, sustainable buildings, energy programs, green procurement, waste management, fleet management, and greenhouse gas emission reduction efforts.

## **D. Technical Work Groups**

The Sustainability Council Technical Work Groups (technical work groups) serve the Council by developing action plans and internal milestones for the goals in EO 13514, and providing feedback on the development and implementation of the departmental EMS and SSPP. Each technical work group chair also serves as a member of the Implementation Committee. In addition to interim progress reports on EO and SSPP goals to the Implementation Committee, technical work group representatives serve as liaisons to field offices, identify challenges to successful advancement on metrics, and provide cross-media discussion of program planning.

The Council charter provides for the establishment of permanent and ad hoc work groups to address priority sustainability programs or projects identified by the Implementation Committee. There may be a need to establish additional ad hoc or permanent work groups to address emerging program requirements in the SSPP. The existing work groups include:

- Carbon Footprint
- Electronic Stewardship
- EMS and Environmental Compliance
- Energy Conservation
- Fleet Management
- Life Cycle Management (Green Procurement and Waste Management)
- Sustainable Buildings

## **2. Coordination and Dissemination of the Plan to the Field**

The Sustainability Council is the primary coordination and dissemination body for the SSPP, which is maintained on the Council SharePoint portal. Council members are responsible for internal dissemination to their respective programs and field offices. OEPC will work with the Department's Office of Communication (OCO) to ensure that additional outreach tools are adequate and reach all stakeholders and interested parties. Individual bureaus and offices will be required to develop SSPP's that align with the departmental SSPP. Bureau/office-level SSPPs will be approved by their bureau/office Senior Sustainability Officer.

The Internal Communications Team within the Department's OCO is responsible for supporting the long-term goal of promoting employee awareness of initiatives, policies, and personnel through conventional and new media. The Internal Communications team, in consultation with OEPC, will be responsible for disseminating information about the SSPP. The extent to which the SSPP is distributed outside the Department will be decided by the Sustainability Council. Examples of tools currently available or under development for dissemination include:

- Intranet – Provides a critical component for secure internal communications to employees from one convenient location and provides internal communication

mechanisms that foster connections between the Department's leadership and employees.

- Sustainability Council portal on SharePoint – OEPC has established a portal for the Department's Sustainability Council, department-level EMS, and the SSPP. Information will be posted and made available to all employees and contractors with access to the Department's internal secure intranet system.
- Executive Messaging – Develop communication plans for the Department's executives to provide employees with informative updates and calls to action.
- Internal Communications Network – OCO members sitting on the Implementation Committee will provide a network of internal communications experts within each bureau and office with updates, information, and guidance targeted specifically for an all-employee audience.
- Electronic Signage – A new tool that provides employees information and announcements using LCD screens in the lobbies of the Main Interior Building.

### **3. Leadership and Accountability**

Leadership accountability for the success of the Sustainability Council, department-level EMS, and SSPP ultimately rests with the Department Senior Sustainability Officer; a position held by the Assistant Secretary for Policy Management and Budget. The Senior Sustainability Officer serves as Chair of the Executive Committee of the Sustainability Council. Leadership accountability at the bureau level is addressed through senior executive membership on the Executive Committee.

Senior leadership responsibilities are outlined in the Council charter and operating plan. Representative activities include participation in the annual departmental EMS management review, approving the EMS work plan, review of the Department's policy, annual review and approval of the SSPP, and other senior-level participation in regular operating matters of the Council through their representatives on the Senior Sustainability Advisory Group.

EO 13423 requires the Department to include specific performance measures in agency performance evaluations of senior agency officials and relevant departmental staff working on environmental and sustainability issues. The Department currently conducts an annual Organizational Assessment (OA). The OA aligns with the structure of the Senior Executive Service (SES) performance plans. This assists rating and reviewing officials in comparing individual and organizational accomplishments. One of the performance metrics is the Office of Management and Budget (OMB) scorecard ratings.

The application of sustainability performance measures has been successfully applied to staff with clear environmental and sustainability responsibilities identified through their position description. Typically, these staff include environmental and energy

professionals and their chain of command. The next step would be identifying staff whose actions are not directly environmental, but whose actions indirectly impact the success of the Department in achieving its sustainability goals. Generally, these positions would include fleet managers, real property and facility managers, and contracting officials, among others. The incorporation of sustainability performance measures into the second tier of professionals indirectly working on issues affecting sustainability will require additional study to generate implementation options.

The Department reports and monitors sustainable practices and environmental compliance in response to the requirements in EO 13514, Energy Independence and Security Act, and other legal and regulatory requirements. The Department uses both the OMB Scorecards and its internal scorecard process to track progress on a number of sustainability programs including sustainable buildings, electronic stewardship, energy, fleet management, EMS, and will soon track greenhouse gas goals for scopes 1 and 2.

The results of the OMB scorecards are briefed to leadership including the Senior Sustainability Officer, Senior Bureau/Office Sustainability Officers, and the Deputies Operations Group. In addition to the OMB scorecard briefings, the concept of a departmental sustainable practices and environmental dashboard has been discussed with the Assistant Secretary of PMB and has conceptual support. An environmental compliance and sustainable practices dashboard available on SharePoint would provide department-wide access to information on the status and progress of the programs. The dashboard could be especially useful for senior leadership by providing a concise visual for the Department's status on the sustainability goals. The tool would be updated throughout the year as part of the Sustainability Council oversight process.

#### **4. Agency Policy and Planning Integration**

Four primary avenues exist for integration of the SSPP and the Department's policy and planning processes. The following four-pronged approach outlines how the Department integrates sustainability goals into the mission, policy, and planning processes. The multifaceted approach facilitates the communication and integration of bureau and office input, which can often be challenging for a decentralized agency such as the Department. The foundation for the integration approach includes:

- Nexus between the SSPP and the Government Performance Results Act (GPRA) Strategic Plan
- Linking SSPP and the departmental EMS commitment statements
- Sustainability Council management of both SSPP and department-level EMS
- Coordination with DOI Innovations & Efficiencies Team (DIET) for Data Center Consolidation Planning

## **A. Strategic Plan and SSPP**

The Department's GPRA Strategic Plan is currently undergoing review and will be updated by the end of Q4 FY 2011. Related mandated sustainable practices performance measures identified in the SSPP include:

- Increase alternative fuels consumption by at least 10% annually
- Reduce energy intensity 3% annually or 30% by 2015
- Increase square footage that meets the Guiding Principles for High Performance and Sustainable Design Green Building to 15%

The GPRA Strategic Plan provides the programmatic goals across the Department and its bureaus and identifies the performance measures that are used to track interim and long-term progress towards these goals. The Strategic Plan provides the Department with a road map for the next five years and is updated every three years to keep the plan current. As such, it is important that the sustainability strategies that are implemented through the SSPP and the GPRA Strategic Plan are mutually reinforcing. To strengthen the coordination of the SSPP and the achievement of the Strategic Plan's programmatic goals, a representative from the Office of Planning and Performance Management participates on the Implementation Committee to promote synergy and ensure consistency between the two plans. The expectation is that the coordinated development of the SSPP with the Strategic Plan and the high priority performance goals will result in better alignment of the two plans and the key sustainability performance indicators contained in each.

## **B. SSPP and EMS Commitment Statements**

The department-level EMS policy statement reaffirms the commitment to the principles and goals of EMS and sustainable practices. The department-level EMS and the SSPP commitment statements are mutually reinforcing. The Department's ISO 14001 conformant policy statement reflects the commitment to:

- Preventing pollution and minimizing damage, and to the natural and human environment
- Conserving U.S. natural and cultural resources, including short and long term land stewardship investments in renewable energy, and water conservation; minimizing climate change impacts; protecting Indian communities; and reducing wildfire risk
- Complying with applicable federal, state, local, tribal and departmental laws, regulations, policies, and other requirements
- Establishing objectives and targets to promote sustainable practices and improve environmental performance throughout the Department. Objectives and targets will be aligned with federally established sustainability and environmental program goals, where appropriate
- Managing processes, systems, and technology to improve efficiency and productivity
- Measuring performance and identifying opportunities for continual improvement

### **C. Sustainability Council Management of SSPP and EMS**

The Department established the Sustainability Council to integrate sustainability practices and concepts into the missions of the bureaus and offices and promote a holistic approach to sustainable operations. The cross-functional, multi-level Council provides a forum for diverse stakeholders to address sustainability issues across program areas and break down existing programmatic stove pipes. The Implementation Committee maintains representation of diverse stakeholders including bureaus and offices program managers, and subject matter experts for sustainable practices, EMS, budget, communications, planning and performance management, and asset management. Each representative provides a channel of communication to their respective program area and facilitates coordination between sustainability goals managed by the Council and their program reporting and planning requirements (Table 1) The EMS is the primary management tool and facilitates the identification and tracking of departmental planning processes as well as institutionalizes the process through documented operating procedures.

Table 1. Critical Planning Coordination

The purpose of this table is to illustrate the relationship between the sustainability plan and other planning and reporting efforts across the agency. This table illustrates opportunities for integrating sustainability requirements into existing planning documents and vice versa.

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	Improve Water Use Efficiency and Management	Pollution Prevention and Waste Elimination	Sustainable Acquisition	Electronic Stewardship and Data Centers	Agency Specific Innovation
GPRA	Yes	TBD	Yes	Yes	TBD	Yes	Yes	Yes	TBD	TBD
Agency Capital Plan	Yes	TBD	No	Yes	TBD	TBD	TBD	TBD	Yes	TBD
A-11 300s	Yes	No	No	Yes	TBD	Yes	Yes	TBD	Yes	TBD
Annual Management Plan/3 Year Timeline	Yes	TBD	TBD	TBD	TBD	Yes	Yes	TBD	TBD	TBD
Circular A-11 Exhibit 53s	Yes	TBD	TBD	N/A	TBD	TBD	Yes	Yes	Yes	TBD
OMB Scorecard <sup>1</sup>	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes	Yes	No
DOE's Annual Federal Fleet Report to Congress and the President	Yes	Yes	No	N/A	N/A	No	No	TBD	N/A	TBD
Data Center Consolidation Plan	Yes	Yes	Yes	TBD	TBD	N/A	N/A	Yes	Yes	Yes
Sustainable Building	Yes	Yes	TBD	Yes	TBD	Yes	Yes	Yes	Yes	Yes

<sup>1</sup> OMB Environmental Stewardship Scorecard coordination is based on existing performance goals in effect through June 30, 2010  
 TBD - To Be Determined  
 N/A - Not Applicable

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	Improve Water Use Efficiency and Management	Pollution Prevention and Waste Elimination	Sustainable Acquisition	Electronic Stewardship and Data Centers	Agency Specific Innovation
Implementation Plan										
Electronic Stewardship Implementation Plan	Yes	Yes	TBD	TBD	TBD	TBD	Yes	Yes	Yes	Yes
Affirmative Procurement Plan for Green Purchasing	Yes	Yes	No	Yes	Yes	No	No	Yes	Yes	Yes
Departmental EMS	Yes	Yes	Yes	Yes	TBD	Yes	Yes	Yes	Yes	TBD
Sustainable Practices Report	N/A	N/A	N/A	No	TBD	No	Yes	Yes	No	TBD
Annual Energy Data Report	Yes	Yes	Yes	No	TBD	Yes	No	No	Yes	Yes
EISA Section 432 Facility Evaluations/Project Reporting	Yes	Yes	Yes	Yes	TBD	Yes	No	No	N/A	TBD
Radio Infrastructure Consolidation Department's Innovations and Efficiencies Plan	No	TBD	No	No	TBD	No	No	No	Yes	TBD

TBD - To Be Determined  
N/A - Not Applicable

## **5. Agency Budget Integration**

The Department recognizes that success in achieving the sustainability goals of EO 13514 requires integration of strategic sustainability performance planning with the Department's budget and fiscal processes. The development of the SSPP has initiated a review process to determine financial system characteristics to better track investment needs for sustainability initiatives across the Department and account for these investments in the future.

The Department provides annual policy and guidance on sustainable initiatives in bureau and office budget formulation. Current investment data for sustainable projects and initiatives are generally embedded in broader program categories and are difficult to identify. The guidance and process for identifying and integrating funding for SSPP activities into the Department budget is an emerging issue that requires the Department to evaluate a practicable budgeting scenario to collect accurate data while minimizing the administrative burden to report. The anticipated challenge will be to isolate SSPP goal-related funding from other program funding elements. The Department is developing a recommended course of action to address the budget and financial requirements for the SSPP through new collaborations between technical, budget, and financial staff at the bureaus and offices, and between the Sustainability Council and departmental EMS framework.

## **6. Methods for Evaluation of Progress**

The Department is establishing a robust oversight framework for its sustainability program that will use the department-level EMS and Sustainability Council to provide proactive and ongoing oversight of the SSPP, OMB Environmental Stewardship Scorecards, internal scorecards, EMS at all organizational levels, and other legal and regulatory requirements. The Council is the primary body responsible for conducting the annual management review of the department-level EMS and SSPP, and the quarterly interim progress reviews (IPR). The Implementation Committee will be responsible for conducting the IPRs, while the EMS annual management review will be attended by the full Sustainability Council.

Semiannual or quarterly progress reviews will be conducted by the Implementation Committee to provide ongoing monitoring of EMS effectiveness, progress on the Department's internal scorecards, and progress on sustainability goals in the SSPP. At a minimum, the IPRs will occur biannually to coincide with the reporting of the OMB Scorecard submissions.

Data currently collected and tracked includes the annual energy, sustainable practices, EMS, and transportation reports. The Department will conduct a gap analysis to determine any deficiencies between data currently collected and data necessary to complete the goal tables in this plan. If a deficiency is identified the Council will determine what data elements, frequency, internal controls, and formats are necessary to collect and report the data.

The Council has established work groups that are responsible for addressing the technical aspects of sustainable practices programs and developing action plans and interim milestones for reaching the EO goals. Each technical work group chair is a member of the Implementation Committee and reports quarterly (based on issues and data reporting frequency) to the Implementation Committee on the advancement of their respective sustainable practices program toward its SSPP goals and departmental interim milestones. Work group chairs will raise potential issues or impediments to timely program advancement to the Implementation Committee for resolution. If the Implementation Committee cannot resolve the issue, it will be referred to senior management through the Senior Advisory Group and ultimately the Executive Committee.

Following the EMS model (plan, do, check, act) the Department will conduct an annual management review to evaluate progress on the implementation of the SSPP, and other legal and regulatory requirements addressed by the EMS. The department-level EMS will be fully implemented and the first management review will be conducted by the end of Q1 FY 2012. The management review will be conducted in accordance with the departmental EMS procedure. The procedure will follow the ISO 14001 standard content which provides the following general framework for management reviews. At a minimum, the annual management review will include:

- Results of internal audits and evaluations of compliance with legal and other requirements to which the Department subscribes
- Relevant communications from internal and external parties
- Environmental performance
- Progress on departmental goals and objectives including SSPP goals
- Status of corrective actions, if applicable, and preventative actions
- Follow-up from previous IPRs or management reviews
- Changes to legal and other requirements that affect the sustainability and environmental goals
- Recommendations for operational improvements

## **V. Evaluating Return on Investment**

One aspect of the Department's mission is based on preservation and conservation by protecting and managing the Nation's natural resources. The Department's Asset Management Program ensures that investments are aligned with departmental, bureau and office, and program missions and strategic goals. Assets and investments are prioritized based on the degree to which investments support mission needs and the achievement of strategic goals. The Department's Asset Management Plan (AMP)

establishes a strategic direction for the management of assets within the Department's real property asset portfolio. The AMP addresses the life-cycle requirements of owned and leased buildings, structures, linear assets, the motor vehicle fleet, and non-Stewardship land used for administrative purposes. The Department's Capital Planning and Investment Control (CPIC) for major constructed assets provides a process to ensure that constructed assets are well conceived, cost-effective, and support mission and business goals. In addition, the Department's Five-Year Deferred Maintenance and Capital Improvement Plan (the Five-Year Plan) implements the AMP, sets forth a mechanism to prioritize projects, and establishes the foundation for the CPIC process.

## **1. Economic Lifecycle Cost / Return on Investment**

The Department makes decisions by considering the mission related needs, strategic goals, return on investment, cost and schedule, and risk. The Department's CPIC guidance requires that a benefit-cost analysis be conducted prior to deciding whether to initiate, continue, or implement capital investment projects (including information technology (IT) and construction investments). CPIC benefit-cost analyses are intended to inform decision-makers about the potential consequences of proposed actions. The benefit-cost analysis includes estimates of the projected benefits and costs for each alternative. Costs and benefits are quantified and monetized where possible. Where benefits and costs cannot be monetized, they are discussed qualitatively. For example, the Bureau of Land Management (BLM) prepares a biennial report titled "Public Rewards from Public Lands," which contains information about what BLM-managed public lands are worth - in economic, social, and environmental terms. Return on investment is another way to express the benefit-cost ratio. OMB Circular A-94, "Guidelines and Discount Rates for Benefit-Cost Analysis of federal Programs" provides the methodology and discount rates, updated annually, for Federal projects and is used to complete the OMB Exhibit 300 – Capital Asset Plan and Business Case Summary for major capital acquisitions.

The Department conducts life-cycle cost analyses to make decisions about investments in products, services, and other projects to determine costs over the total life cycle. Bureaus employ the guidance from the National Institute of Standards and Technology Handbook 135 – Life Cycle Costing Manual for the Federal Energy Management Program (FEMP). This guide implements the FEMP rule published in the Code of Federal Regulations (CFR) at 10 CFR 436, and establishes the methodology and criteria for economic evaluation of energy and water conservation projects and renewable energy projects in all federal buildings. Discount factors and energy prices indices are updated annually for use with the handbook. Savings to investment ratios are also to be used to help rank projects competing for limited funds. While this handbook focuses on the requirements of FEMP life-cycle cost rules as they apply to federal buildings and facilities, the life-cycle cost methodology presented is consistent with American Society for Testing and Materials standards on building economics. In addition, many bureaus use the Basic Life Cycle Costing (BLCC) tool developed by the National Institute of Standards and Technology to calculate life-cycle costs.

For IT investments, the Department conducts Cost Benefit Analysis (CBA) prior to deciding whether to initiate, continue, or modify an IT investment. The CBA examines the business processes that the investment will change and presents a quantifiable picture of those changed business processes. Simply put, if the changes in the business operational costs and any new benefits are greater than the project costs, the investment provides a positive return on investment.

## **2. Social Costs and Benefits**

Currently, the Department does not provide a standard process to identify, quantify, and monetize social cost and benefits to be used during project analysis. Where social cost and benefits can be quantified and monetized they are incorporated into the benefit-cost analysis. Otherwise, these benefits are discussed qualitatively and considered in the prioritization process relative to the Department's mission and strategic goals.

Social impacts are discussed in a broader sense in the project's National Environmental Policy Act (NEPA) documentation. These planning documents assess various alternatives where environmental and social impacts are considered. Many of the Department's mission and program areas include social benefits and costs including the enjoyment of parks, refuges, public lands, and recreation areas, as well as the education of our Native American youth. The bureaus employ various modes of analysis to assess the social and economic benefits generated. For example, the BLM prepares a biennial report titled "Public Rewards from Public Lands", which contains information about what BLM-managed public lands are worth - in economic, social, and environmental terms.

The Department is in the planning stages for revising the Environmental Justice (EJ) Strategic Plan. It is anticipated that the EJ Strategic Plan will include initiatives to integrate sustainability goals where possible and relevant to minority and low income populations. Additionally, when the EJ Strategic Plan is issued, subsequent updates to the SSPP will integrate any relevant EJ Strategic Plan goals.

When evaluating return on investment, the Department intends to leverage its EMS to identify best practices and account for social costs and benefits. This issue will be presented to the Sustainability Council that will develop recommended courses of action. The department-level EMS is the management tool to provide ongoing oversight of program advancements and documentation of potential challenges.

## **3. Environmental Costs and Benefits**

The Department has fully integrated the NEPA in the planning processes in all its activities on lands and resources under its jurisdiction to promote good management practices and resource protection. For example, as a part of its planning process, Bureau of Land Management (BLM) routinely prepares Resource Management Plans (RMPs) that specifically incorporate environmental considerations pursuant to NEPA as well as other statutes such as the Clean Water Act, the Endangered Species Act, the

Resource Conservation and Recovery Act, the National Historic Preservation Act, and others. Based on such analyses in their respective planning processes and environmental considerations, bureaus designate areas that may be off limits for future activities such as mining, exploration, etc. Each bureau has a planning process in place that is designed to ensure protection of critical and sensitive habitat and resources and to manage resources in a way that promotes good stewardship consistent with its specific mission and responsibilities.

The Department and bureaus select Energy Star, FEMP-designated, and other energy-efficient products when acquiring energy-consuming products. These products provide a lower life-cycle cost and reduce energy or water consumption, which ultimately reduces the impact on the environment. In addition, the Department's bureaus and offices have begun assessing both new and existing buildings utilizing the Department's Sustainable Buildings Assessment and Compliance Tool, or a comparable bureau sustainability assessment tool, to identify compliance with the Guiding Principles for High Performance Sustainable Buildings. Implementation of these requirements has been incorporated into the Five-Year Plan. The Department requires that all Deferred Maintenance and Capital Improvements (DMCI) projects comply with the Guiding Principles as applicable within the scope of the project.

The Department strives to find win-win program benefits where not only do the Department's business process improve, but also accrue environmental benefits.

The Department intends to leverage its EMS to identify best practices and account for environmental costs and benefits. This issue will be presented to the Sustainability Council that will develop recommended courses of action.

#### **4. Mission-Specific Costs and Benefits**

For the Department's owned and leased real property assets, the Asset Priority Index (API) is one measure that helps provide a clearer link to mission for each existing and proposed building and structural asset in the Department's portfolio. API indicates the importance of that asset to the organization's mission. High API rating indicates that an asset is mission critical while a low API rating indicates that an asset is not mission dependent. The API provides a guide in determining where to focus limited resources.

A more detailed discussion of API is included in the AMP.

#### **5. Operations and Maintenance and Deferred Investments (Real Property Deferred Maintenance)**

The ultimate success of improving the stewardship of constructed assets will be measured by the ability to direct the Department's limited resources to high priority assets, reduce accumulated deferred maintenance for facilities, and sustain the long-term mission delivery capability of its asset portfolio. The current five-year plan focuses

on projects that stabilize, restore, or replace constructed assets that are mission critical or mission dependent and are in poor condition.

Project focus should be on the highest priority mission critical and mission dependent constructed assets with emphasis on critical health and safety needs. The five-year plan sets forth a mechanism using established criteria to rank these projects for funding. Categories for ranking projects include:

- Critical health and safety
- Critical resource protection
- Energy/Sustainability
- Critical mission
- Code compliance and
- Other deferred maintenance

In addition to the API, all constructed assets must have a facility condition index (FCI) which indicates the deferred maintenance needs of the asset. It is the ratio of accumulated deferred maintenance to the current replacement value for a constructed asset.

As highlighted in the AMP, the Department utilizes the API/FCI analysis chart to identify where limited resources need to be focused, i.e., assets that are most important to mission delivery and are in the worst condition warrant funding. Judgment is necessary in situations of critical health and safety concerns at lower priority assets used by the public and employees.

The Department and bureaus are identifying properties that are critical to fulfilling the mission, maximizing the utilization of critical assets, and appropriately disposing of assets that no longer support mission critical needs or are no longer cost effective to maintain. The disposition of constructed assets can be a very complex and time-consuming process. These challenges may include the assessment of the asset's historic value, and the identification of hazardous materials or safety concerns and its associated costs.

The Department's large inventory of heritage assets presents unique challenges. Heritage assets, including historic buildings and structures, archeological sites, and cultural landscapes, are generally expected to be preserved indefinitely. Each bureau maintains a program to manage its heritage assets. Cultural resource experts are consulted to develop strategic plans and guidelines to manage and maintain bureau cultural resources. This development process takes into consideration the unique needs of heritage assets, which are very different from nonheritage assets, especially with respect to life cycle. The FCI for heritage assets must also take into account the intrinsic value of the asset. Such a process emphasizes the unique needs of the heritage asset, particularly historic structures and buildings with respect to their maintenance needs. It also emphasizes the use of historically accurate materials and workmanship when rehabilitation, restoration, or stabilization is necessary for long-term maintenance.

The AMP provides additional information on asset disposal and management of heritage assets.

## **6. Climate Change Risk and Vulnerability**

Given its mission and geographic area of responsibility, the Department's programs are particularly focused on understanding and managing for potential impacts of climate change, such as:

- Shifting of native ranges of managed wildlife and invasive species, and disrupted or altered seasonal wildlife migrations
- Changes in precipitation patterns and regional climate in geographic areas of responsibility (major water resource availability, land use, wildland fire, and ecosystem and wildlife population health implications)
- Changes in sea level and weather patterns impacting coastal lands, ecosystems, wildlife, and natural resource utilization activities
- Changes in Arctic climate resulting in increased permafrost melting affecting energy resource infrastructure and increased human activity in Arctic regions and
- Shifting human populations and changes in land use needs due to regional climate, sea level, and water resource availability

These and other potential impacts could significantly change the Department's operational needs and management scenarios.

The Department's resource managers consider climate change to be the single most challenging issue they face. In order to equip them with the tools and strategies they need, the Department of the Interior's Climate Change Adaptation initiative will determine the causes and formulate solutions to mitigate climate impacts to lands, waters, and natural and cultural resources. As the pre-eminent manager of lands and resources, the Department will leverage its experience and expertise in partnership with other governmental and nongovernmental entities. The Department's Climate Science Centers and Landscape Conservation Cooperatives will conduct and communicate research and monitoring to improve understanding and forecasting for those natural and cultural heritage resources that are most vulnerable to climate change impacts.

Links to the Department guides referenced in this section are:

CPIC <http://www.doi.gov/pam/CPICguide62107.pdf>

The Department AMP <http://www.doi.gov/pam/DOIAssetPlanVer3.pdf>

Five-Year Plan [http://www.doi.gov/pam/2012\\_Att\\_G\\_Final.pdf](http://www.doi.gov/pam/2012_Att_G_Final.pdf)

NIST Handbook [http://www1.eere.energy.gov/femp/information/download\\_blcc.html](http://www1.eere.energy.gov/femp/information/download_blcc.html)

FY 2011 Budget in Brief <http://www.doi.gov/budget/2011/11Hilites/toc.html>

## VI. Transparency

The Department is committed to open and transparent communication and decision-making in all aspects of the program management. This approach has been integral to the organization and operation of the Department's Sustainability Council, which is the governing body for the departmental EMS and the forum for planning, implementing, and monitoring the Department's progress on the sustainability goals in the EO and the SSPP. The departmental EMS will provide a procedure to standardize communications between the Department and internal and external stakeholders.

### Sustainability Council Operation

Reflective of the importance for an open and transparent decision-making process for the Department's Sustainability program are the following considerations that have been addressed through the organization and operation of the Council:

- Vertical integration of information and communications from the field to senior leadership and from senior leadership across the Department through multi-tiered representation on the Sustainability Council
- The Sustainability Council strives for consensus-based decision making with bureau and office representatives working on environmental compliance and sustainable practices.
- Department employees and contractors with access to the Department intranet can access information on the departmental EMS and the Sustainability Council. Bureaus, offices, and sustainable practices technical work groups are encouraged to establish a presence on the Department's Sustainability portal to facilitate access to information-sharing.
- The departmental EMS provides a communication procedure to standardize communications between the Department and internal and external stakeholders.

### Internal and External Communication with Stakeholders

The Communication outreach tools for use with internal stakeholders are covered in Section IV of this Plan. The Internal Communications team within the Department's OCO is responsible for supporting the long-term goal of promoting employee awareness of Department initiatives, policies, and personnel through the use of conventional and new media.

EO 13514 does not require that the SSPP be made publically available. The Department's External Affairs group within the Office of the Secretary is responsible for communicating with external organizations and the public and will help facilitate the decision whether or not to make the SSPP available to the public. If the Department chooses to make the SSPP publically available, OEPC will consult with the External Affairs Office to assess requirements for additional analyses to identify the core stakeholder audience and to plan an outreach strategy. The Department's OCO will also provide a supporting role for considering potential outreach methods including:

- Using the Department's public website <http://www.doi.gov/greening/> with the latest information about the SSPP including:
  - PDF and HTML versions of the SSPP
  - OMB Environmental Stewardship, Energy, and Transportation Scorecards listing the Department's sustainability goals and updates on progress toward achieving the goals stated in the plan.
  - News and updates from bureaus and field offices on their efforts toward achieving the sustainability goals
- Posting the SSPP on the FedCenter website
- Posting a message on DOI.gov announcing the plan and unveiling the new sections of the DOI.gov/greening website
- Posting a message on the Secretary's Facebook page announcing the plan and encouraging citizens to learn more about the plan and to visit DOI.gov/greening
- The Department could consider posting a feedback form on the DOI.gov/greening page to allow citizens to comment on the Sustainability Plan
- GreenGov Challenge – Department employees share ideas about how the federal community can lead by example, green the government, and meet the goals of President Obama's Executive Order on Federal Sustainability. Information from Department field offices support SSPP implementation and promote bottom up participation in SSPP sustainability goals advancement.

## **Section 2: Performance Review & Annual Update**

---

### **I. Summary of Accomplishments**

- FWS installed photovoltaic systems (PV) at the Bosque del Apache National Wildlife Refuge, New Mexico. A 6-kilowatt array was installed on the fire shop, and a 12 kilowatt array was installed on the farm maintenance shop. In addition, three solar hot water heaters were installed on Quarters 1 and 3, and the volunteer lounge. At the Parker River National Wildlife Refuge, Massachusetts, a 32-kilowatt solar PV system was installed on the visitor center and administrative headquarters building roof. In addition, three solar-powered pond aerators were installed at the Inks Dam National Fish Hatchery, Texas, to replace diesel powered paddle wheels. These systems will have a lasting impact on the reduction of GHG emissions.
- NPS installed an 18-kilowatt photovoltaic system at the Grand Canyon South Rim Visitor Center, Arizona. This system will offset 30% of the visitor center's electricity use. In addition, this system will provide visitors with a unique opportunity to learn about clean energy alternatives.
- USGS Florida Integrated Science Center in Gainesville, Florida, recently completed the installation of a 5-kilowatt photovoltaic system as part of an Energy Savings Performance Contract (ESPC).
- The National Business Center purchased 15,884.3 megawatt hours of renewable electricity through a GSA area-wide contract from landfill gases and wind-generated power, which provided 100 % of the main interior complex's electricity.
- The National Renewable Energy Laboratory provided technical assistance to enhance the design of the BIA Nazlini Community School Fire Station, Nazlini, Arizona, to be a net zero energy building. The Nazlini Fire Station will optimize energy efficiency and utilize an on-site 10-kilowatt photovoltaic system and natural gas as its energy sources. The construction contract was awarded in the fourth quarter of FY 2009. Building commissioning, weather monitoring, photovoltaic electricity generation, and energy consumption will be monitored to assess building performance. If successful, the resulting net zero energy fire station design could be replicated at subsequent fire station sites.
- In FY 2009, USGS completed energy improvements at the Great Lakes Science Center, Michigan, through an ESPC. The major improvements for the project include installation of a geothermal heat-pump system for heating and cooling, installing a building automation system to ensure efficient building operation, and lighting retrofits. Projections showed energy consumption savings of 30% to 35%. The total estimated project cost that was \$1.5 million. The benefit was \$2.3 million in deferred maintenance and capital improvement project costs were avoided due to this project.

- In FY 2009, Interior received five FEMP Technical Assistance projects with FEMP American Resource and Recovery Act (ARRA) funding. These projects will help the Department to identify energy conservation measures that will contribute to the reduction of GHG emissions for the Department facilities as well as the general public. In addition, it will increase the nation's energy security. The technical assistance projects include:
  - Support for development of large-scale projects on the Department's lands
  - Strategic green energy design for the main interior complex, Washington, DC
  - Evaluation of renewable energy potential at Fish and Wildlife Service Facilities
  - Evaluation of helix-type wind turbine technology at Quivira National Wildlife Refuge, Kansas
  - An energy audit of Grand Canyon National Park, Arizona

The results of these technical assistance projects will be finalized by the end of Q4 FY 2010.

- Accomplishments in fleet management include:
  - Developing guidance to identify and manage fleet inventory
  - Exceeded the alternative fuel acquisition goals required in the Energy Policy Act of 1992 / 2005
  - Exceeded the 2% petroleum reduction goal
  - Met the 10% alternative fuel increase goal
  - Acquired over 1,400 vehicles through the American Recovery and Reinvestment Act, replacing older, less fuel efficient ones with more fuel efficient vehicle, hybrids, and AFVs
- Creation and issuance of the Department's Sustainable Building Assessment and Compliance Tool (SB Tool), which includes comprehensive guidance for historic buildings developed by the Department's Heritage Asset Partnership
- Inclusion of SB Tool in the Department's American Reinvestment and Recovery Act guidance
- BIA is auditing water consumption in BIA facilities and placing a major focus on conservation in lavatories and kitchen fixtures in its schools, dormitories, and detention centers
- BLM performed water audits at 67 facilities that will implement water conservation measures as part of its ongoing energy savings performance contract. BLM continues its efforts to screen all facilities through study of water meter records for the year

- Reclamation installed low-flow water fixtures, including waterless urinals at the restrooms of the Oak Shores Day Use Area, Lake Berryessa, California. A flow-meter, auto-shutoff, and main valve shutoff were installed at the Lower Colorado Region office building complex to reduce water consumption for lawn irrigation
- FWS installed low-flow fixtures at the newly constructed office complex at Dungeness National Wildlife Refuge, Washington. Recent upgrades of the restrooms were also performed at the Santa Ana National Wildlife Refuge, Texas, and Wichita Mountain Wildlife Refuge, Oklahoma; these included the installation of low flow water fixtures and instantaneous water heaters
- NPS' Wilson Creek Battlefield, Missouri, retrofitted its restrooms with waterless urinals and automatic faucets to save the park an estimated 10,000 gallons of water annually
- NPS' Mojave National Park Team diverted and reused 14,000 tons of asphalt cuttings to pave 4.1 miles of Zzyzx Road. Mojave NP's use of the cuttings eliminated the need to transport them to a distant landfill and avoided the production of green house gases during transportation to the landfill. The paving project improved the road surface from poor to excellent and reduced the generation of dust and particulate matter that affect visitors and wildlife.
- NPS' Zion National Park Green Team identified the need to install water bottle filling stations, encourage visitors to use reusable water bottles, and eliminate the sale of bottled water within Zion National Park. Members of the Green Team saw their efforts come to fruition with the installation of water bottle filling stations and elimination of bottled water being sold in the park. This has resulted in the reduction of waste produced by disposable water bottles, provide visitors with the opportunity to drink Zion spring water instead of water imported from somewhere else, and provide long-term potential for reduced production of bottled water if enough individuals change to reusing bottles versus buying bottled water.
- The Department has a comprehensive green procurement plan (GPP) that includes energy efficient, water efficient, biobased, environmentally preferable, non-ozone depleting, contains recycled content, and nontoxic or less toxic alternatives. In addition to the Department Environmental Training Conference, the Department has a robust training program available for contracting officers, contracting officers technical representatives and program managers and analysts. The Department of the Interior University (DOIU) offers environmental courses throughout the year and across the nation.
- The Department conducts acquisition management reviews of its bureaus and offices. Green elements in the review to ascertain the incorporation of green requirements in contract vehicles. In fulfillment of the ARRA, the Department developed checklists, which include triggers for the incorporation of green requirements as appropriate.

- The Department has had an interdisciplinary Electronics Stewardship Task Force with co-leadership and coordination of all disciplines necessary for electronics stewardship policy development and implementation since 2006.
- Department-wide Strategic Sourcing Initiative for Multifunctional Printing Devices contract requires all machines to be Energy Star and programmed at the manufacturer with duplex printing as the default factory setting.
- Department-wide Strategic Sourcing Initiative for IT Hardware contract requires desktop printers to have a duplex printing option.
- Department-wide Strategic Sourcing Initiative for IT Hardware contract included Energy Star requirements and was the first government contract to use the Electronic Product Environmental Assessment Tool (EPEAT) criteria, making the Department EPEAT and Energy Star compliant since 2005.
- In October 2009 (Q1 FY 2010) the US Fish and Wildlife Service closed their Denver Data Center and moved the servers, racks, and circuits to the Department's Enterprise Hosting Center on the Denver Federal Center complex.
- The Department has authorized the DOI IT Innovations & Efficiencies Team (DIET) to implement a series of technical recommendations on streamlining The Department's IT infrastructure. The Department's approach is to leverage industry best practices for decommissioning and consolidating data centers, virtualizing servers and increasing our adoption of cloud computing. The Department has already implemented energy efficiency improvements and is in the process of migrating all Interior employees to a single, secure commercial cloud for messaging services. The Department's bureaus and offices have been and continue to make excellent progress in virtualizing servers to reduce power consumption. Several organizations have implemented thin computing technologies, and this is expanding. We have also been decommissioning hardware and storage assets from operational status which also reduces energy usage. These decommissioning actions since June 30 2010 have resulted in the consolidation of 7 data centers to date.

## **II. Goal Performance Review**

The Department is using EMS as the management structure and planning process for developing targets, objectives and management plans for executing milestones and supporting activities to achieve the EO goals in the SSPP. The technical work group chairs and co-chairs will receive EMS training, including fundamentals for developing targets and objectives to ensure process consistency across the technical working groups. After the work group chairs are trained, they will lead their respective work groups in planning sessions to develop targets, objectives and management plans.

Each workgroup chair will then brief the Council Implementation Committee on the proposed targets, objectives, and action plans for their SSPP goal area(s). The Implementation Committee will review the proposed targets and objectives and provide feedback to the technical work groups. Once targets and objectives are adopted by the Council, work group chairs will brief the Implementation Committee quarterly on the progress including potential impediments to timely progress.

The following schedule is in place for development of SSPP goal targets and objectives:

- September 8, 2010: Work group chair and co-chair EMS training on developing targets, objectives and management plans for each SSPP Goal
- By the end of Q1 FY 2011: EMS annual management review
- By the end of Q2 FY 2011: Technical workgroups develop initial targets and objectives
- By the end of Q3 FY 2011: Implementation Committee reviews initial targets and objectives

A summary table with all planning table goal performance measures is provided in Appendix 1.

## **1. GOAL 1: Scope 1 & 2 Greenhouse Gas Reduction**

### **A. Goal Description**

The Department established a FY 2020 scope 1 and 2 GHG emissions reduction goal at 20% relative to FY 2008. The Department owns and operates approximately 47,000 buildings, 112,000 structures, and 33,000 vehicles at 2,400 locations across the United States, Puerto Rico, and U.S. territories (FY 2009 Federal Real Property Profile). Buildings are comprised of visitor centers, schools, dormitories, office and maintenance buildings, comfort stations, laboratories, housing, detention centers, and warehouses. The vast majority of these buildings are geographically dispersed with a size of less than 10,000 gross square feet. Many of these assets have historical or cultural significance that not only supports the Department's mission but also are part of the critical and core mission. The broad strategies to achieve this goal are:

- Reducing building energy intensity
- Increasing the use of renewable energy
- Implementing on-site renewable energy generation projects
- Reducing the use of fossil fuels in both buildings and fleet

Specific strategies and methodologies to achieve the scope 1 and 2 GHG emissions reduction goal are discussed below.

## **B. Agency Leads for Goal**

Assistant Secretary - Policy, Management and Budget

Deputy Assistant Secretary – Budget, Finance, Performance and Acquisition

Deputy Assistant Secretary – Policy and International Affairs

Director, Office of Acquisition and Property Management

Director, Office of Environmental Policy and Compliance

See Appendix 2 for detailed descriptions of responsibilities as well as an organizational chart.

## **C. Implementation Methods**

Various intra-agency working groups, such as the Asset Management Partnership, Sustainable Buildings Working Group, the Department's Energy Conservation Committee, and Fleet Managers Partnership, have been established with bureau representatives to ensure coordination within the Department while respecting each bureau's unique mission. The primary functions of these groups are to facilitate communication, review and recommend policies and procedures, share expertise, discuss best management practices explore new initiatives, and promote training.

### **1. Buildings**

Efficient and effective energy management is a key aspect of asset management planning. Energy conservation techniques and initiatives are met with enthusiasm as they compliment the Department's overall mission of preserving and protecting the nation's natural and cultural resources.

Meeting the FY 2020 scope 1 and 2 GHG reductions goal is contingent upon meeting previously established statutory goals for reducing building energy intensity and increasing renewable electricity consumption. Specifically, reduce purchased electricity; eliminate the use of coal; switch to natural gas, where available; and, where fossil fuel generators are used to regularly supply power to the facility, convert to on-site renewable energy generation.

The Energy Policy Act of 2005 (EPAAct 2005), the Energy Independence and Security Act (EISA), EO 13423, and EO 13514 set forth aggressive energy management goals and strategies. These public laws and executive orders require the annual reduction in energy intensity in goal subject buildings by 3% to achieve a 30% reduction by FY 2015 relative to FY 2003, and progressively increasing our consumption of renewable energy resources. In addition, the Department and its bureaus and offices are required to:

- Implement utility metering for electricity, natural gas, and steam in all appropriate buildings
- Design new buildings to be 30% more energy efficient than relevant codes
- Reduce fossil fuel generated energy consumption by 100% in new building designs or major renovations by the end of Q4 FY 2030.
- Design new buildings, beginning the planning process in FY 2020, to achieve net zero energy by the end of Q4 FY 2030
- Conduct energy and water evaluations in 25% of covered facilities annually
- Incorporate sustainable design principles in new and existing buildings
- Comply with the Department's Sustainable Building Program requirements
- Comply with the Department's Electronic Stewardship and Data Center Program requirements
- Utilize Energy Star, FEMP-designated, and other energy-efficient products when acquiring energy-consuming products
- Consolidating the Department's data centers to reduce power consumption and cooling requirements of computer equipment

The Department is committed to achieving these energy reduction goals by implementing energy efficiency and renewable energy technologies as well as best management practices. In addition, these goals contribute to the Department's efforts to reduce scope 1 and 2 GHG emissions. Conserving energy and investing in energy reduction measures makes good business sense and allows limited resources to be reinvested in the Department's facilities. Dramatic fluctuations in the cost of energy significantly impact already constrained operating budgets, providing greater incentives to conserve and seek ways to lower energy consumption. These include investments in cost-effective, energy efficient, and renewable energy technologies.

As required by EISA Section 432, the Department's bureaus and offices have been conducting energy and water evaluations in covered facilities to document building performance and identify energy and water conservation measures. Facilities with the highest consumption rates are generally prioritized to be audited first. Commissioning is conducted on buildings greater than 50,000 gross square feet and every American National Standards Institute (ANSI) accredited building project. Evaluations are accomplished by in-house expertise, direct funding, technical assistance provided by a Department of Energy ESPC, utility energy service contracts (UESC), and partnerships with utility companies. The Department is expected to evaluate 25% of covered facilities annually. Identified energy and water conservation measures are incorporated in bureau maintenance management systems for prioritization.

Due to remote locations, many of the Department's facilities have their utility service provided by rural cooperatives. Many cooperatives are small and do not offer additional services such as audits or alternative financing for energy improvements. This poses a significant challenge as bureaus will need to complete energy evaluations within existing funding. The Department has been working with FEMP to help educate rural

cooperatives of the UESC process and the opportunities associated with the Department's facilities.

The Department's bureaus utilize appropriated funding, alternative financing, and partnerships to implement energy conservation and on-site renewable energy measures. ESPCs and UESCs have been used on a limited basis by the Department's bureaus. This is primarily due to remote locations, small facility size, and decentralized utility bill payments. Energy service companies are generally not interested in pursuing an ESPC at facilities with less than \$1 million worth of energy efficiency improvements. Since most of the Department's facilities are less than 10,000 gross square feet and are geographically dispersed, the ESPC threshold is difficult to achieve. Energy service companies will work with agencies to bundle facilities to meet the threshold but are only willing to receive a centralized payment for the project. With the exception of BLM, the Department's bureaus and offices have a decentralized utility bill payment process. This has been a major obstacle in expanding use of both ESPC and UESC projects.

As mentioned above, BLM's utility bills are paid from one centralized location. While the majority of their facilities are small, BLM bundled these facilities into a larger project and successfully implemented a multi-phased, multistate ESPC. USGS has also been able to implement various ESPCs due to their campus settings, which were able to exceed the \$1 million threshold for energy improvements.

The Department is beginning to explore the feasibility of power purchase agreements and has been in discussion with the National Renewable Energy Laboratory. However, the Department does not have enhanced use leasing authority which is specific authority, to lease underutilized land and improvements to private sector developers for a term of up to 75 years.

Partnerships help leverage funding for a range of energy efficient and renewable energy technologies. These opportunities may include:

- Utility incentives, including rebates, customized services, etc.
- Demonstration projects
- Technical assistance from other federal agencies and national laboratories, such as DOE, and Environmental Protection Agency (EPA)
- University partnership projects
- Contributions by friends groups and partners
- Grants from state energy offices

However, the Department will be challenged to meet the 30% energy intensity reduction goal and scope 1 and 2 GHG reduction goal without focused funding. DOE FEMP indicates that 20% of an agency's facility energy costs must be invested annually in energy improvements to meet the FY 2015 energy intensity goal. Based on past energy reporting, the Department typically spends approximately 10% of its facility energy costs on energy conservation measure (approximately \$11 million). Therefore, the bureaus will need to shift funding to meet the FY 2015 energy intensity reduction goal and follow-

on funding through FY 2020 to sustain energy intensity reductions and achieve the scope 1 and 2 GHG reduction goal.

Training and awareness programs are vital for the Department to achieve and sustain energy efficient operations. Energy management is on the agenda for the 2010 Department Conference on the Environment. This event, as well as DOE's GovEnergy, contributes greatly to educating the Department's energy managers, field personnel, and contracting officers. In addition, departmental energy managers provided information to personnel on available energy management training, and encouraged them to attend as much training as operational requirements and funding permitted. The Secretary's Youth Initiative further promotes conservation efforts and instills involvement with today's youth.

The Department has a unique opportunity to educate visitors and showcase both the positive and negative effects of climate change. As the nation's lead conservation agency, the Department showcases exhibits, research, and demonstrations of climate change adaptation and mitigation actions and renewable energy systems to the many visitors to its facilities. These displays promote individual awareness and conservation actions (e.g., recycling, turning off lights, walking, cycling, carpooling, or using mass transit to get to work), which reduce energy consumption thus reducing GHG emissions.

## **2. Fleet**

The Department of the Interior fleet management program provides support to the management of over 33,000 fleet motor vehicles nationwide, including over 4,000 alternative fueled vehicles. The Department established a portfolio approach to managing the motor fleet program.

The OMB formally issued federal agencies President Management Agenda (PMA) Transportation Management scorecards for motor fleet management. The scorecard reinforces the requirements of the Energy Policy Acts of 1992 and 2005, the Energy Independence and Security Act of 2007, EO 13423, and EO 13514. The Department issues bureau-level scorecards to assist with meeting statutes and mandates.

Each departmental bureau or office has implemented management plans to guide their programs. They have developed strategic direction to optimize the utilization and size of its fleets by linking decisions about acquisition, leasing, replacement cycles, and disposal with strategic goals and mission needs. The Department's fleet management strategy consists of the bureaus and offices implementing and continually updating their plans based on best practices and lessons learned. The plans formulate the framework for improved fleet management. Bureau and office plans are updated annually and incorporate latest statutes and requirements for federal fleet management. Bureau and office plans are reviewed at least annually by the Department's Fleet Manager.

Section 142 of EISA required federal fleets to decrease petroleum consumption, increase alternative fuel use, and to develop a plan to do so. Federal agencies are to

reduce petroleum consumption 2% annually through 2015 and increase alternative fuel use 10% annually through 2015, both relative to a 2005 baseline. This guidance on sustainability and greenhouse gas reduction will extend the petroleum reduction and alternative fuel usage goals through FY 2020. Interior is on pace to meet these requirements, and will continue to meet the requirements outlined in this plan. The Department will achieve these requirements through:

- Reductions in Fleet size (over 10 percent since FY 2005)
- Acquiring over 1,450 more fuel-efficient vehicles through the American Reinvestment and Recovery Act (ARRA) vehicle procurement initiative
  - One for one exchange for less fuel-efficient vehicles
- Increased the number of alternative fueled vehicles and hybrid-electric vehicles in the Department's fleet inventory

The Department is on track to meet these requirements, and will continue to meet the requirements outlined in this Plan. By the end of Q4 FY 2011, the Department will develop an acquisition strategy to place AFVs in locations where the alternative fuel is available. This acquisition strategy will also include bureau strategies for the placement and redistribution of vehicles by the end of Q4 FY 2011.

#### D. Positions

The Department employs a diverse portfolio of environmental protection specialists, engineers, program analysts, geologists, hydrologists, and others who work on actions associated with implementation of the SSPP. Some upper management staff may work up to 100% of their time directly or indirectly on actions associated with compliance and sustainability goals. At the middle management and the field or facility levels, the responsibilities for implementation of actions associated with the SSPP are normally collateral duties.

Challenges to implementing the SSPP include determining if current staffing levels are adequate to accomplish the new requirements (inventories, monitoring, reporting). A need may exist to acquire assistance through hiring actions and or contracting to accomplish the new requirements. The Department may need to conduct a gap analysis on current monitoring and reporting capabilities versus new monitoring and reporting requirements to track progress on EO 13514 goals.

Additionally, the Department may need to conduct a survey of all bureaus and offices to determine whether or not it is adequately staffed department-wide to fully implement and report on the goals.

#### E. Planning Table

	<b>Scope 1 and 2 GHG Target</b>	Unit	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15	FY 16	....	FY 20
Buildings	Energy Reduction Goals (BTU/SF reduced from FY03 base year)	%	15%	18%	21%	24%	27%	30%	hold	....	hold
	Planned Energy Reduction (BTU/SF reduced from	%	22.5 %	24%	25.5%	27%	28.5 %	30%			

	FY03 base year)										
	Renewable Electricity Goals (Percent of electricity from renewable sources)	%	5%	5%	5%	7.5%	hold	hold	hold	hold	hold
	Planned Renewable Electricity Use (Percent of electricity from renewable sources)	%	7.5%	8%	8.5%	9%					
Fleet	Petroleum Use Reduction Targets (Percent reduction from FY05 base year)	%	10%	12%	14%	16%	18%	20%	22%	....	30%
	Planned Petroleum Use Reduction (Percent reduction from FY05 base year)	%	10%	12%	14%	16%	18%	20%	22%	...	30%
	Alternative Fuel Use in Fleet AFV Target (Percent increase from FY05 base year)	%	61%	77%	95%	114%	136%	159%	hold	.....	hold
	Planned Alternative Fuel Use in Fleet AFV (Percent increase from FY05 base year)	%	61%	77%	95%	114%	136%	159%			
	scope 1 & 2 - Reduction Targets (reduced from FY08 base year)	%	-	2%	4%	6%	8%	10%	12%	...	20%

## F. Agency Status

### 1. Buildings

In FY 2009, the Department's building energy consumption was 73,727 Btu per gross square foot without the renewable energy purchase credit. This represents a total reduction in energy consumption per gross square foot of 21% relative to FY 2003, exceeding the EISA energy intensity goal of 12%. The Department categorized energy usage primarily from pumps, aerators, fish feeders, hatchery production, exterior lighting, and security at Fish and Wildlife Service facilities as an "assumed exclusion of structures and processes not qualified as Federal buildings." These energy processes do not have an associated building gross square footage and will significantly skew building energy usage.

In FY 2009, the Department used 58,227 megawatt hours of renewable electricity from self-generation and through renewable electricity purchases and credits. This represents 8.1% of Interior's total facility electricity use and exceeded the EAct 2005 goal of 3% of facility electricity use. Of the 8.1%, 2.2% represents on-site renewable energy generation, 3.4% represents renewable electricity purchased through the utility company, and 2.5% represents the purchase of renewable energy certificates. The use of on-site renewable energy sources is encouraged if the development of the resource is economically, environmentally, and technically feasible.

The Department has implemented 2,001 on-site renewable energy projects including stand-alone and grid-connected photovoltaic systems, solar thermal (hot water) projects, geothermal (ground source) heat pumps, incremental hydropower, and wind projects. These on-site renewable energy projects greatly reduce GHG emissions.

## **2. Fleet**

In accordance with the preliminary guidance provided by the Department of Energy (DOE) for the development of agency plans, the Department has implemented the following guidelines to reduce the Department's GHG emissions:

### Fleet Inventory Projections

By the end of Q4 FY 2011, the Department will conduct a mission analysis and identify measures to 'right-size' their fleets: having the appropriate number of vehicles relative to need and employing the most fuel-efficient vehicle for the required task. These projections also address the annual EAct 75% alternative fuel vehicles (AFV) acquisition requirement and EAct 2005 Section 701 waivers. This analysis will be used to make strategic decisions on size, composition, and placement of departmental vehicles in FY 2011.

The Department developed guidance to bureaus and offices to implement measures to right-size fleets and to identify the minimum number of vehicles for each location that will satisfy mission requirements. A joint working group with key energy, environmental, and transportation personnel disseminates requirements and guidance to bureaus to increase the efficiency of the departmental fleet. The Department will continue to require that each bureau maintain and annually update its bureau-level fleet management plans. These plans continually address issues to:

- Develop and implement a vehicle justification template that will tie each vehicle to a departmental mission
- Develop a minimum vehicle baseline per bureau
- Require that bureaus develop a strategy for compliance and incorporate this strategy into their fleet management plan
- Require that each bureau continue to acquire the minimum size and type vehicle that will accomplish its mission

Compliance with this strategy, upon issuance of the revised guidance and scorecard requirements, will be reflected in the Department internal transportation management scorecards.

Over the past 10 years, the Department has exceeded the alternative fuel vehicle (AFV) acquisition requirement in accordance with the Energy Policy Act of 1992 and 2005. The Department has also reduced the number of AFV waivers by strategically acquiring and placing vehicles in locations where the fuels are available. The Department seeks methods and solutions to increase alternative fuel infrastructure to increase the use of alternative fuels and decrease the number of Section 701 waivers necessary to meet mandated requirements.

### Petroleum Reduction Projections

To reduce petroleum consumption the Department will continue to:

- Decrease consumption of petroleum fuels and increase use of alternative fuels
- Include guidance in the Department's Motor Vehicle Handbook that requires bureaus to acquire the most-fuel-efficient vehicle that will accomplish the mission
- Require that each vehicle includes a justification on how it best meets mission requirements
- Require that bureaus acquire the minimum size and type vehicle that will accomplish the mission
- Replace conventionally fueled vehicles with alternative fueled vehicles
- Eliminate older, less-fuel-efficient vehicles and replace them with newer, more-fuel-efficient vehicles
- Develop performance measures for vehicles and excess vehicles that do not meet these requirements
- Acquire more gasoline-electric hybrid vehicles
- Develop acquisition plans for the fleet portfolio
- Conduct on-site fleet management assessments to gather data on fleet condition, utilization, right-sizing, and mission dependency
- Conduct workshops to outline and implement bureau-level strategy

### Alternative Fuel Use Projections

The Department has implemented measures to increase the use of alternative fuels. Although the infrastructure for alternative fuels is limited, the Department has and will continue to use alternative fuels wherever possible. Specifically, the Department will implement the following strategies by the end of Q4 FY 2011 to increase alternative fuel use:

- Develop an acquisition strategy to place alternative fuel vehicles (AFV) in locations where the fuel is available
- Plan to increase the infrastructure for alternative fueling stations at the Department's fueling sites
- Develop public and private partnerships to increase the availability and use of alternative fuel and fueling stations

### ***Specific goals, targets, milestones, and/or planning actions for buildings and fleet to achieve scope 1&2 reductions include:***

- By January 31, 2011, the Department will develop scope 1 and 2 GHG Comprehensive Inventory
- By the end of Q4 FY 2010, the Department will continue its efforts to meet or exceed the energy intensity reduction goal to achieve a 30% reduction by the end of Q4 FY 2015. The Department will focus on reducing purchased electricity by approximately 1.8% annually to further reduce GHG emissions. The FY 2010 renewable energy consumption portfolio will consist of on-site renewable energy

components, renewable electricity purchases from utility providers, and renewable energy certificate purchases

- The Department will identify policy gaps and begin process to update policy to incorporate the new EO 13514 requirements by the end of Q4 FY 2011
- BLM awarded the third and final phase of their ESPC on March 31, 2010. On-site work began in Q3 FY 2010 with completion scheduled in Q1 FY 2011. This phase will improve facilities in Alaska, Arizona, California, New Mexico, Texas, and Utah. BLM began using ESPC in FY 2006 for a pilot project with Johnson Controls, Inc., at the National Interagency Fire Center and BLM's Boise District Complex, Idaho. BLM awarded phase two of the ESPC task order for 105 facilities across six states in FY 2007.
- BIA will complete the construction of its net zero energy Nazlini Fire Station by the end of Q4 FY 2010
- The Department will continue to pursue ESPCs and UESCs as deemed appropriate
- The Department will continue its efforts to design new buildings to be 30% more energy efficient than relevant codes, as applicable
- The National Business Center will begin the installation of occupancy sensors in the Main Interior Building offices in Wings 3 through 6 by the end of Q2 FY 2011
- The Department will conduct energy and water evaluations in 75% of the covered facilities by the end of Q3 FY 2011
- USGS will complete retrofits of energy conservation measures through the energy savings performance contract at the National Wildlife Health Center in Wisconsin by the end of Q3 FY 2011
- NPS will complete the installation of a 539 kilowatt grid-connected photovoltaic system at El Portal Complex at Yosemite, California by the end of Q1 FY 2011
- NPS will complete the installation of 285 kilowatt photovoltaic systems to replace diesel generated power on Alcatraz Island, California. Phase 1 (188 kW) is scheduled for completion in Q2 FY 2011. Phase 2 (97 kW) is scheduled for completion by the end of Q1 FY 2012.
- In partnership with Idaho Power and Light, USGS will begin installing LED lighting at the Idaho Water Science Center, Idaho by the end of Q1 FY 2011
- The Department will validate and update the Department's renewable energy registry to determine accurate estimates for bureau on-site renewable energy generation and consumption by the end of Q1 FY 2011.

## **2. GOAL 2: Scope 3 Greenhouse Gas Reduction**

### **A. Goal Description**

The Department established a FY 2020 scope 3 GHG emissions reduction goal at 9% relative to FY 2008. Scope 3 emissions are from sources not owned or directly controlled by a Federal agency, but related to agency activities, services, and employee travel and commuting.

The Department has approximately 70,000 employees and benefits from 242,000 volunteers at 2,400 locations across the United States, Puerto Rico, and U.S. territories. In addition, the Bureau of Indian Education provides education services to 42,000 students attending elementary, secondary, post-secondary schools, and dormitories. The Bureau of Indian Affairs also owns correction centers with an average of 4,000 detention center occupants. Scope GHG emissions can be far reaching as they are the consequence of departmental activities. The reduction activities represent an important opportunity to influence the behavior of employees and suppliers towards activities that reduce GHG emissions and protect the environment.

Scope 3 GHG emissions can be far reaching as they are the consequence of the Department's activities. It represents an important opportunity to influence the behavior of employees and suppliers towards activities that reduce GHG emissions and protect the climate.

FY 2010, scope 3 GHG emissions categories are limited to:

- Transmission and distribution losses from purchased electricity
- Federal employee travel and commuting
- Contracted waste disposal

The broad strategies to achieve scope 3 GHG emissions reductions include:

- Reduce purchased electricity consumption to minimize transmission and distribution losses
- Implementing on-site renewable energy projects
- Increasing diversion of nonhazardous solid waste
- Implementing lower-carbon commuting and travel strategies for employees in coordination with the GSA

### **B. Agency Lead for Goal**

Assistant Secretary - Policy, Management and Budget

Deputy Assistant Secretary – Budget, Finance, Performance and Acquisition

Deputy Assistant Secretary – Policy and International Affairs

Deputy Assistant Secretary – Technology, Information and Business Services

Director, Office of Acquisition and Property Management

Director, Office of Environmental Policy and Compliance

Director, Office of Financial Management

Chief Information Officer

See Appendix 1 for detailed descriptions of responsibilities

### **C. Implementation Methods**

Scope 3 GHG emissions are the result of a broad range of activity areas. EO 13514 seeks to establish federal leadership with the development of calculation methodologies and reduction strategies. The calculation of scope 3 GHG emissions will be a challenge due to the limited availability of existing emissions data. The Department will work under the premise of continual improvement for data collection and reporting, as well as implementation of reduction strategies.

Transmission and distribution losses from purchased energy are directly linked to energy consumption. As purchased energy consumption decreases so will the scope 3 GHG emissions associated with transmission and distribution losses. The Department will continue to reduce building energy intensity and incorporate on-site renewable energy generation projects to make positive strides in reducing scope 1, 2, and 3 GHG emissions.

Reducing air travel in the Department will present a distinct challenge, but also a great opportunity. The Department is a diverse, decentralized federal agency with operations and responsibilities throughout the United States, Puerto Rico and U.S. Territories, and provides both temporary duty travel and permanent change of station relocation travel. Business air travel to meet mission needs is inevitable. The Department has actively participated with the GSA to develop, collect, and report employee business air travel through the GSA Travel Management Information System. This information is collected from the contracted Travel Management System (TMS) provider, as employees make business air travel reservations through the Department's E-Gov Travel System, GovTrip, or directly with the TMS, SATO. The Department does not have a method to collect information when employees make reservations outside this process; (i.e., direct reservations with airlines or the use of travel broker sites such as Travelocity).

GSA's Travel Management Information System is still developing business ground travel data collection and reporting. Ground travel includes rental vehicles, rail travel, bus travel, ship travel, and personal vehicle travel. Manual collection of this data is resource intensive and will not be able to be accomplished for scope 3 GHG target development.

Employee commuter travel has far-reaching impacts. It will require changes in behavior. The Department employees work in diverse locations from major metropolitan areas, and rural sites, to extremely remote locations often where mass transit options are nonexistent. Currently, specific employee commuting data is not collected. Estimations of commuter data will be utilized to accomplish the scope 3 GHG target development. Further assessment of available commuter data will be conducted to formulate the FY 2008 and 2010 GHG comprehensive inventories. The Department proposes to begin work to develop an employee survey to capture and analyze data.

Contracted (off-site) waste disposal includes both contracted solid waste and contracted wastewater treatment. Information on recycled or diverted waste is currently being collected and reported. Data regarding off-site solid waste disposal can be determined from this information. Scope 3 GHG emissions from contracted wastewater treatment are generally determined by the number of people employed. For the scope 3 GHG target development, the following is included for contracted wastewater treatment: number of employees, number of students who attend BIA schools, and number of occupants in BIA detention facilities.

Strategies to reduce scope 3 GHG emissions include:

- Communicating the requirement to use the Department's travel management provider when making all business travel arrangements
- Increasing the use of technology in lieu of face-to-face meetings, where possible, such as conference calls, videoconferences, and webinars
- Limiting air travel to critical mission needs
- Promoting use of lower-carbon travel alternatives for TDY travel
- Identifying and using green rental car vehicles when available
- Identifying and using green hotels
- Promoting use of mass transit, carpooling, teleworking, and other lower-carbon commuting alternatives
- Increasing diversion of nonhazardous solid waste
- Reducing electricity consumption to minimized transmission and distribution losses
- Incorporating on-site renewable energy generation projects

Training and awareness is required for the Department to achieve and sustain scope 3 GHG emissions reduction. DOE's FEMP GovEnergy conference, the Environmental Protection Agency's (EPA) WaterSense Program, and various webinar training sessions greatly contribute to educating the Department's energy managers, and field personnel.

#### **D. Positions**

The Department employs a diverse portfolio of environmental protection specialists, engineers, program analysts, geologists, hydrologists, and others who work on actions associated with implementation of the SSPP. Some upper management staff may work up to 100% of their time directly or indirectly on actions associated with compliance and sustainability goals. At the middle management and the field or facility levels, the

responsibilities for implementation of actions associated with the SSPP are collateral duties.

Challenges to implementing the SSPP include determining if current staffing levels are adequate to accomplish the new requirements (inventories, monitoring, reporting). A need may exist to acquire assistance through hiring actions and or contracting to accomplish the new requirements. The Department may need to conduct a gap analysis on current monitoring and reporting capabilities versus new monitoring and reporting requirements to track progress on EO 13514 goals.

Additionally, the Department may need to conduct a survey of all bureaus and offices to determine whether or not it is adequately staffed department wide to fully implement and report on the goals.

**E. Planning Table:**

<b>SCOPE 3 GHG TARGET</b>	Units	FY 10	FY 11	FY 12	FY 13	FY 14	....	FY 20
Overall Agency scope 3 Reduction Target (reduced from FY08 base year)	%	0	0.9	1.8	2.7	3.6		9.0
Sub-Target for Federal Employee Travel	%	0	0.64	1.28	1.92	2.56		6.4
Sub-Target for Contracted Waste Disposal	%	0	1.9	3.8	5.7	7.6		19
Sub-Target for Transmission and Distribution Losses from Purchased Energy	%	0	2.11	4.22	6.33	8.44		21.1

**F. Agency Status:**

The Department established a FY 2020 scope 3 GHG emissions reduction goal 9.0% relative to FY 2008. Previously established statutory and EO goals, such as reduction in building energy intensity, implementation of on-site renewable energy systems and water conservation measures, and increasing diversion of nonhazardous solid waste, will greatly contribute to achieving the scope 3 reduction goal.

***Specific goals, targets, milestones, and/or planning actions for this goal include:***

- Assess current IT capabilities that are available to Department employees to reduce travel
- Communicate available IT alternatives through training and awareness programs
- Continue working with GSA on ground travel reporting and collection
- Continue working with GSA on developing travel policy to achieve emissions reduction to include preferred contracting with vendors that are achieving reductions in emissions
- Conduct employee survey to assess commuting characteristics in Q1 FY 2011
- Issue Departmental Manual and Handbook for Telework in Q4 FY 2011
- Reduce transmission and distribution losses from purchased electricity by installing on-site renewable electricity systems at NPS Death Valley National Park, and Mojave National Preserve, California, by the end of Q1 FY 2011, as

well as other renewable energy projects and energy intensity reduction efforts as mentioned under Goal 1.

### **3. GOAL 3: Develop and Maintain Agency Comprehensive Greenhouse Gas Inventory**

#### **A. Goal Description**

The Department established a FY 2020 scope 1 and 2 GHG emissions reduction goal at 20% and a scope 3 GHG emissions reduction goal at 9.0%, both relative to FY 2008. EO 13514 requires agencies to establish FY 2008 and FY 2010 comprehensive scope 1, 2, and 3 GHG emissions inventories by January 31, 2011, and to update and report inventories annually thereafter.

#### **B. Agency Leads for Goal**

Assistant Secretary - Policy, Management and Budget

Deputy Assistant Secretary – Budget, Finance, Performance and Acquisition

Deputy Assistant Secretary – Policy and International Affairs

Director, Office of Acquisition and Property Management

Director, Office of Environmental Policy and Compliance

Director, Office of Financial Management

See Appendix 1 for detailed descriptions of responsibilities

#### **C. Implementation Methods**

The Department will utilize the Federal Greenhouse Gas Accounting and Reporting Guidance established by CEQ and FEMP to determine the FY 2008 GHG emissions baseline and FY 2010 comprehensive GHG inventory. The Department will identify the data required for GHG emissions, establish organizational responsibilities and processes for data collection, and utilize existing data reporting to inventory initial GHG emissions. The Department will investigate data tools to capture GHG emissions data from a variety of sources to improve data collection, reporting, and quality.

Many data elements, such as fugitive and fluorinated gas emissions, employee commuter emissions, and emissions from leased facilities, will be a challenge to capture if not currently reported. Many greening responsibilities are designated as collateral duty functions of staff already stretched to meet critical mission needs. Additional data collection and reporting will exacerbate this personnel issue. In addition, the submissions of required reports (FAST, Annual Energy Report, Scorecards, scope 1, 2, and 3 GHG inventories) converge at the end of the calendar year and are often prepared by the same individuals. While much of this information will populate GHG

inventory, emissions categories not currently captured will require special training, attention, and follow-up.

Several emerging implementation issues have been identified for this goal and will be vetted by the Council to develop recommended courses of action. Issues will be initially discussed at the technical work group level and subsequently briefed to the Implementation Committee for endorsement and review of policy, proposed phased timeline, funding, or other department-level considerations. The department-level EMS is the management tool to provide ongoing oversight of program advancements and documentation of potential challenges.

#### **D. Positions**

The Department employs a diverse portfolio of environmental protection specialists, engineers, program analysts, geologists, hydrologists, and others who work on actions associated with implementation of the SSPP. Some upper management level staff may work up to 100% of their time directly or indirectly on actions associated with compliance and sustainability goals. At the middle management and the field or facility levels, the responsibilities for implementation of actions associated with the SSPP are collateral duties.

Challenges to implementing the SSPP include determining if current staffing levels are adequate to accomplish the new requirements (inventories, monitoring, reporting). A need may exist to acquire assistance through hiring actions and or contracting to accomplish the new requirements. The Department may need to conduct a gap analysis on current monitoring and reporting capabilities versus new monitoring and reporting requirements to track progress on EO 13514 goals.

Additionally, the Department may need to conduct a survey of all bureaus and offices to determine whether or not it is adequately staffed department-wide to fully implement and report on the goals.

#### **E. Agency Status**

- The Department will complete a top-down comprehensive greenhouse gas inventory by the January 31 2011 deadline, using the Department's annual energy and fleet reports and other data as appropriate.
- With assistance from the Pacific Northwest Laboratory, develop a Greenhouse Gas Inventory Management Plan by the end of Q2 FY 2011.
- The Department and bureaus will assess the feasibility of the General Service Administration Carbon Footprint Tool for future use by the end of Q1 FY 2011.

### **4. GOAL 4: High-Performance Sustainable Design / Green Buildings**

#### **A. Goal Description**

The Department's targets are:

- Beginning by the end of Q4 FY 2020, all new federal buildings are designed to achieve zero-net energy by the end of FY 2030

- All new construction, major renovation or repair and alteration of federal buildings complies with “Guiding Principles for Federal Leadership in High Performance and Sustainable Buildings” (Guiding Principles)
- At least 15% of agency’s existing buildings and building leases will meet the Guiding Principles by FY 2015 (5,000 gsf threshold for existing buildings and building leases)
- Demonstrate annual progress toward 100% conformance with Guiding Principles for entire building inventory
- Demonstrate use of cost-effective, innovative building strategies to minimize energy, water, and materials consumption
- Manage existing building systems to reduce the consumption of energy, water, and materials, and identifying alternatives to renovation that reduce existing assets’ deferred maintenance costs
- Optimize performance of the agency’s real property portfolio – examine opportunities to decrease environmental impact through consolidation, reuse, and disposal of existing assets prior to adding new assets
- Ensure use of best practices and technology in rehabilitation of historic Federal properties

**B. Agency Leads for Goal**

Assistant Secretary - Policy, Management and Budget

Deputy Assistant Secretary – Policy and International Affairs

Deputy Assistant Secretary – Budget, Finance, Performance and Acquisition

Director, Office of Environmental Policy and Compliance

Director, Office of Acquisition and Property Management

See Appendix 1 for detailed descriptions of responsibilities

**C. Implementation Methods**

The Department’s sustainable building (SB) program is led by OEPC. In leading the SB program, OEPC closely coordinates with the Office of Acquisition and Property Management, which leads the Department’s Asset Management Program, the Facilities Energy Management Program, and the Leasing Program. OEPC also closely coordinates with the Office of Budget.

The Department’s policy development is led by the Department’s Sustainable Building Work Group, which is chaired by OEPC and has active representatives from each bureau, the Office of Acquisition and Property Management, and the Office of Budget. Sustainable Building Work Group representatives come from a variety of disciplines: architecture, engineering, budget, new construction project management, facility operation and maintenance, leasing, asset management, including disposal, energy management, and sustainable practices. As such, the Department’s SB program is

closely interwoven with the Department's facilities energy-management program, asset management program, leasing program, budget formulation, and budget execution.

All methods to implement the SB program are contained in the Department's Sustainable Building Implementation Plan (SB Plan), including use of the Department's Sustainable Building Assessment and Compliance Tool (SB Tool). The SB Tool is a checklist of the Guiding Principles. The checklist is used by project managers and facility managers to ensure and document that new construction and major renovation projects are designed and constructed to meet the Guiding Principles. It is also used to assess compliance with the Guiding Principles at existing buildings. The result of existing building assessments is reported and tracked in the Federal Real Property Profile (FRPP).

In addition to being the primary compliance tool, the SB Tool also provides guidance to project managers on how to document evidence of compliance with the Guiding Principles, and comprehensive, detailed guidance for implementing the Guiding Principles in historic buildings.

Progress on implementation of the SB Plan is measured by a comprehensive year-end SB program assessment and a midyear "check-in." The SB program assessment coincides with the OMB scorecard submission process. The bureau SB program leads provide data on progress made toward SB goals, implementation gaps, challenges for resolution, and opportunities for mutually beneficial program development as well as opportunities for going beyond compliance. Bureaus are rated on progress on the Departmental Internal Scorecard.

Detailed information about implementation methods, milestones, and strategies are available in the SB Plan issued in June 2008. The Department has a working draft of an updated SB Plan, which bureaus are using to manage their bureau SB programs (e.g., moving to the new 5,000 square foot threshold). The updated SB Plan will be issued after the Department receives the EO 13514 implementing guidance, and the Department has met with OMB to address the Department-specific SB program challenges. For more information about the Department-specific SB program challenges, copies of the SB Plan and its appendices and the SB Tool are available on the web at: [www.doi.gov/greening/buildings](http://www.doi.gov/greening/buildings).

### ***Impact of the American Reinvestment and Recovery Act (ARRA)***

The Department was successful in integrating the SB Tool into the Department's ARRA purchasing guidance. This success enabled the Department to ensure applicable funding from the \$3 billion which helped the Department to make progress toward the 15% goal. Thus, some bureaus will have a spike in compliance with the Guiding Principles in FY 2011 and taper off when ARRA funding is no longer available. Other bureaus who received respectively little or no ARRA funding will make the most progress toward the goal in later years as buildings slowly come into compliance over the course of greening during maintenance and renovations and new building construction.

### ***Asset Management and Capital Planning Framework***

The Department's Asset Management Program provides the overall vision, structure, and processes for implementing Executive Order 13327, Federal Real Property Council initiatives, and efforts involving the appropriate stewardship of over 47,000 buildings. The Office of Acquisition and Property Management and the Office of Budget provide leadership and execution support for the program at the departmental-level. The Asset Management Team (AMT), an interbureau, executive level committee comprised of senior real property officers (SRPO), establishes the strategic vision for asset management and ensures that activities support and comply with department and bureau strategic plans and objectives. The AMT also provides executive direction for the Capital Planning and Investment Control (CPIC) program; a multiphase effort which supplements OMB's Capital Programming Guide and is documented in the Department's CPIC Guide. The CPIC program identifies the processes, activities, and outputs necessary to ensure that the Department's investments are well conceived, cost-effective, and support departmental and bureau missions. Many of the committee charters, guidance documents, and plans discussed above are available at [www.doi.gov/pam/](http://www.doi.gov/pam/).

The Department implements many elements of the SB program in each phase of the CPIC program.

#### **1. Pre-Select Phase**

The Pre-Select phase provides a process to assess a capital investment's support of bureau and departmental strategic and mission needs. The Facilities Deferred Maintenance and Capital Improvements Guidance (Attachment G) is the departmental budget formulation guidance that establishes annual priorities and requirements for the bureaus' five-year Deferred Maintenance and Capital Improvements (DMCI) program. With respect to the SB program, Attachment G accomplishes two objectives: First, it requires that all building deferred maintenance projects comply with the Guiding Principles that are applicable to the scope of the project. Secondly, it clearly directs how projects are prioritized based upon department-wide criteria. Under these criteria, capital improvement projects whose primary intent is to improve the sustainable aspects of Federal buildings are prioritized second only to critical life, health, and safety improvement projects.

#### **2. Select Phase**

The Select phase utilizes a structured review and evaluation process that ensures selected investments fully support the mission and strategies. Investments in the Select phase mature from a concept into a selected alternative based upon life-cycle cost effective strategies, including an analysis of which sustainable design concepts are appropriate. Bureau Investment Review Boards (IRB), which are interdisciplinary, bureau-level executive committees, and the AMT assess and approve certain projects that enter this phase, ensuring that the project scope includes appropriate sustainability

measures. Construction Exhibit 300, when applicable, also includes discussion on which sustainable design concepts are planned and whether the project will comply with the Guiding Principles. Lastly, performance measures are identified for ensuring that the project meets the performance goals identified through the business plan.

### 3. Control Phase

The Control phase ensures that capital investments are conducted in a disciplined, well-managed, and consistent manner. Risk management plans are utilized to ensure investments are delivered within scope, on time, and within budget. Risk mitigation efforts are implemented to reduce or eliminate risk to critical project elements. The current CPIC guide includes sustainable design concerns. The next update to the CPIC guide will include use of the SB Tool. The Control phase also allows bureau IRBs and AMT to engage in oversight of certain projects that exceed variance thresholds and provide approval on corrective actions to realign project performance.

### 4. Evaluate Phase

The Evaluate phase compares actual to expected results after an investment is constructed to assess the impact on mission performance. This phase focuses on determining whether the investment met the performance criteria established in the Select phase. For the SB program, this includes an assessment of the building in accordance with the SB Tool. At the end of the Evaluate phase, which could last up to a year after construction completion and occupancy, the investment is evaluated against the design approach by bureau staff, compliance with the Guiding Principles is reviewed, and asset records are updated in the Federal Real Property Profile.

### 5. Management-In-Use Phase

The Management-In-Use phase accounts for the majority of the effort and resource needs across an investment's life cycle. This phase provides the means to ensure continued effectiveness of an investment in supporting mission requirements, evaluates ongoing operations and maintenance requirements, and considers potential disposal and/or replacement of an investment.

With respect to the SB program, this phase includes areas such as advanced metering of utilities to effectively monitor use, recommissioning building systems where necessary, and appropriate use of Energy Star equipment and green/biobased products in daily operation.

The Management-In-Use phase encompasses several other functions that either directly or indirectly support the SB program. A few examples of these functions are, or will be:

- Building assessments using the SB Tool

- Comprehensive condition assessments for identifying maintenance / repair needs and inefficiencies
- Energy and Water Audits and Evaluations
- Environmental Management Systems
- Health and Safety Inspections
- Environmental Compliance Audits, and
- Five-year Space Plans

Lastly, the Department aims to right-size the real property asset portfolio. This includes appropriate disposal of excess buildings and adaptive reuse of existing buildings. The Department's emphasis from a SB standpoint is to reuse existing buildings before constructing new when it is lifecycle cost effective, which is by definition sustainable design. When buildings are truly excess to mission needs, the Department uses steps as laid out in the Asset Management Plan and Innovation Plan to dispose excess assets with the goal of reducing the footprint from the portfolio and costs associated with energy and water use.

Copies of the Asset Management Plan and the CPIC Guide are available on the web at: [www.doi.gov/pam/assetmanage.html](http://www.doi.gov/pam/assetmanage.html).

#### **D. Positions**

The Department employs a diverse portfolio of environmental protection specialists, engineers, program analysts, geologists, hydrologists, and others who work on actions associated with implementation of the SSPP. Some upper management staff may work up to 100% of their time directly or indirectly on actions associated with compliance and sustainability goals. At the middle management and the field or facility levels, the responsibilities for implementation of actions associated with the SSPP are collateral duties.

Challenges to implementing the SSPP include determining if current staffing levels are adequate to accomplish the new requirements (inventories, monitoring, reporting). A need may exist to acquire assistance through hiring actions and or contracting to accomplish the new requirements. The Department may need to conduct a gap analysis on current monitoring and reporting capabilities versus new monitoring and reporting requirements to track progress on EO 13514 goals.

Additionally, the Department may need to conduct a survey of all bureaus and offices to determine whether or not it is adequately staffed department-wide to fully implement and report on the goals.

#### **E. Planning Table**

SUSTAINABLE HIGH PERFORMANCE BUILDINGS (Buildings Meeting Guiding Principles)	Units	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15
Owned Facilities Targets	%	1.55%	3.27%	4.43%	5.07%	6.22%	14.98%
Leased Facilities Targets	%	0%	0%	0%	0%	0%	0.02%

Total Facility Targets	%	1.55%	3.27%	4.43%	5.07%	6.22%	15%
------------------------	---	-------	-------	-------	-------	-------	-----

**F. Agency Status**

The Department has a long history of championing sustainable building practices for departmental facilities. Part of the Department’s mission is to provide recreation opportunities, which includes educational programs. The Department’s many sustainably designed visitor centers serve important education and outreach roles for the visiting public.

Examples of past commitment to high performance and sustainable design/green buildings include the following:

- In September 1993, the National Park Service published their *Guiding Principles of Sustainable Design* , which ultimately served as the model for the federal community
- In 2005 and 2006, the Department was one of the key agencies that helped to create and signed the Federal Leadership in High Performance and Sustainable Buildings Memorandum of Understanding of 2006, which included development of the original set of Guiding Principles for Federal Leadership in High Performance and Sustainable Buildings
- The first department-wide SB Plan was signed and issued in January 2007
- The Department has been an active member of the Interagency Sustainability Working Group since its formation in August 2001

After signature of EO 13423, the Department updated the SB Plan, signed in June 2008, which serves as agency policy as well as implements it.

Currently, per the Federal Real Property Profile, the Department owns and operates over 47,000 buildings. The value of these assets is measured in billions of dollars. Many are considered priceless for their historical significance.

For buildings above 5,000 gross square feet (gsf), the Department has a total inventory of 3,878 buildings with 60,212,596 gsf. Thus the Department’s 15% targets correspond to 582 buildings and 9,031,890 gsf.

The SB program assessment conducted in December 2009, revealed:

- By square footage, the Department has 1.5% gsf that meets the Guiding Principles. Using current budget levels, the Department expects to have 8.2% gsf meet the Guiding Principles by the end of Q4 CY 2015, 6.8% short of the 15% target.
- By number, the Department has approximately 1% of buildings that meet the Guiding Principles. Using current budget levels, the Department expects to have almost 4% of total buildings meeting the standards by the end of Q4 CY 2015, 11 % short of the 15% target, by the end of Q4 CY 2015.

The Department will engage with OMB to find a SB program solution to meet the 15% goal by 2015. Program expectations must be adapted to the very large and unique inventory held by the Department. The Federal model where all new construction and 15% of existing buildings by number and by square footage must meet the Guiding Principles unfortunately does not yield the intended results at the Department.

The Department has three main challenges in meeting the 15% goal.

The first challenge is: the Guiding Principles were designed to yield best results, including the greatest return on investment, for large facilities and complexes, particularly large facilities in urban settings. The Department's building inventory is the opposite: primarily very small and very remote facilities. Further, often where the Department does have large facilities, the Guiding Principles are not applicable (e.g., Rosie the Riveter, a historic shipyard (visit [http://www.nps.gov/rori/upload/drivingtour-for\\_web\\_05-2009%20SMALL.pdf](http://www.nps.gov/rori/upload/drivingtour-for_web_05-2009%20SMALL.pdf) for more info) or can be partially, but not fully, implemented (e.g., historic buildings, or buildings that do not currently meet the Guiding Principles and will not require substantial maintenance or capital improvements before 2015). Additionally, the Department's small, remote, and/or unique buildings will not yield a great return on investment for the taxpayer whether the return on investment (ROI) is calculated by utility savings, greenhouse gas reduction, or social benefit (an exception for return on social benefit could be a visitors center that can serve an educational function).

The second challenge is: the Department builds very few new buildings. This indicates that the Department primarily needs to retrofit existing buildings to meet the 15% goal. Implementing the Guiding Principles for new buildings is most cost effective and yields the highest return on investment. Retrofitting existing buildings is more expensive and yields a lower return on investment.

The third challenge is: the Department's backlog of health and safety projects and other mission critical projects. The Department prioritizes the backlog over multiple planning years (i.e., five-year plan). While the SB program is a high priority for the Department, the bulk of projects where the primary intent is to bring a building into compliance with sustainability requirements (i.e., that don't address mission critical assets or resolve health and safety deficiencies) will be lower on the priority list and may not be addressed for years. The Department requires that all deferred maintenance and capital improvement projects comply with the Guiding Principles as applicable within the scope of the project. Even so, given the piecemeal nature of such projects, it will take many years before any one building is in full compliance with all of the Guiding Principles.

The Department has not addressed the target to begin designing all new federal buildings by the end of Q4 FY 2020 to achieve zero net energy by the end of Q4 FY 2030. This requirement will be addressed when DOE Federal Energy Management Program provides regulation on this requirement and/or EO 13514 implementation guidance for this requirement is available.

**Specific goals, targets, milestones, and/or planning actions to achieve sustainable buildings goals are:**

- Meet with OMB to find mutually agreeable solutions to the Department's sustainable buildings program challenges in Q4 FY 2010 or Q1 FY 2011.
- Update the Department's sustainable building policy (currently the SB Plan) by the end of Q4 FY 2011.
- Report progress on achieving sustainable building goals into data element 25 of the FRPP per GSA guidance, by December 15, 2010.

**5. GOAL 5: Regional and Local Planning**

**A. Goal Description**

In accordance with EO 13514 – Federal Leadership in Environmental, Energy, and Economic Performance, the Department will be addressing the following goals in the area of regional and local planning and will make the necessary adjustments upon receipt of guidance under development by the Department of Transportation, Federal Environmental Executive, and General Services Administration.

- Participating in regional transportation planning and recognizing existing community transportation infrastructure
- Aligning federal policies to increase effectiveness of local planning for energy choices as locally generated renewable energy
- Ensuring that the planning for new federal facilities or new leases includes consideration of sites that are pedestrian friendly, near existing employment centers, and are accessible to public transit; and include considerations that emphasize existing central cities and planned town centers in rural communities,
- Identifying and analyzing impacts from energy usage and alternative energy sources in all environmental impact statement and environmental assessments for proposals for new or expanded federal facilities under the NEPA, as amended (42,U.S.C.4321 *et seq*)
- Coordinating with regional programs for federal, state, tribal, and local ecosystem, watershed, and environmental management

**B. Agency Leads for Goal**

Assistant Secretary - Policy, Management and Budget

Deputy Assistant Secretary – Budget, Finance, Performance and Acquisition

Deputy Assistant Secretary – Policy and International Affairs

Director, Office of Acquisition and Property Management

Director, Office of Environmental Policy and Compliance

See Appendix 1 for detailed descriptions of responsibilities.

### **C. Implementation Methods**

The Department participates in regional transportation planning (recognition and use of existing community transportation infrastructure) by reviewing and providing input and comments (as well as participating on regional transportation planning as appropriate) on federally funded transportation projects, proposals, and environmental documents. The Department also participates in the transportation subsidy program. Department Manual 516 (DM) Chapter 4, and various environmental statement memoranda (ESMs) issued by OEPC provide specific policy guidance to bureaus and offices on transportation projects from federal agencies. In addition, pursuant to Section 4(f) of the Department of Transportation Act, the Secretary of Transportation is required to seek concurrence from the Department requiring use of publicly owned land of a public park, recreation area, wildlife and waterfowl refuge of national, state, or local significance, or land of an historic site of national, state, or local significance.

NEPA review and analyses evaluate impacts to environment and resources, including physical and human environment, from proposed actions by the agency, and as such examines impacts associated with energy use. However, under current policy and guidance, NEPA evaluation of impacts associated with energy usage are more generic in nature and do not specifically evaluate use of alternative energy sources except on a case-by-case basis. OEPC in cooperation with the departmental bureaus and offices plans to develop an ESM that will provide specific guidance to bureaus and offices on analyzing and identifying impacts associated with energy use and alternative energy sources in environmental documents prepared pursuant to NEPA. The ESM will also incorporate policy guidance to increase effectiveness of local energy planning as a part of the ongoing NEPA process.

Pursuant to the Department's NEPA regulation (40 CFR Part 46), 516 DM Chapters 1-15, and bureau's NEPA handbooks, departmental offices and bureaus coordinate and consult with federal, state, tribal, and local entities regarding impacts to environment (both physical and biological), including impacts to local ecosystems, watersheds and other environmental management matters associated with proposed new or expanded Federal facilities. Such consultation and coordination is specifically mandated in the departmental NEPA regulation and various policy guidance (DM procedures, ESMs, environmental compliance memoranda (ECM), and environmental review memoranda (ERM) issued by OEPC) as a part of ongoing compliance with NEPA and its implementing procedures issued by the Council on Environmental Quality.

### **D. Positions**

The Department employs a diverse portfolio of environmental protection specialists, engineers, program analysts, geologists, hydrologists, and others who work on actions associated with implementation of the SSPP. Some upper management staff may work up to 100% of their time directly or indirectly on actions associated with compliance and sustainability goals. At the middle management and the field or facility levels, the responsibilities for implementation of actions associated with the SSPP are collateral duties.

Challenges to implementing the SSPP include determining if current staffing levels are adequate to accomplish the new requirements (inventories, monitoring, reporting). A need may exist to acquire assistance through hiring actions and or contracting to accomplish the new requirements. The Department may need to conduct a gap analysis on current monitoring and reporting capabilities versus new monitoring and reporting requirements to track progress on EO 13514 goals.

Additionally, the Department may need to conduct a survey of all bureaus and offices to determine whether or not it is adequately staffed department-wide to fully implement and report on the goals.

**E. Planning Table**

REGIONAL AND LOCAL PLANNING	Units	FY 10	FY 11	FY 12	FY 13	....	FY 20
Not applicable					X	X	X

**F. Agency Status**

The Department currently complies with all NEPA requirements and CEQ regulations. The Department’s NEPA regulations can be found at 43 CFR, Part 46. NEPA policy and guidance has been distributed to bureaus and offices via DM’s and environmental memoranda. Additionally, the Department has a Sustainable Buildings Implementation Plan that mandates use of the Guiding Principles.

A work group for regional and local planning currently does not exist under the Sustainability Council organization. Based on the additional guidance from the Office of the Federal Environmental Executive (OFEE), an approach to address the goal will be determined by the Council and a technical work group may be established. A stakeholder analysis could be conducted to determine the core internal and external membership required to provide adequate coverage of this goal.

***Specific goals, targets, milestones, and/or planning actions for this goal include:***

- When adequate external and internal guidance is available local and regional considerations will be incorporated into the Sustainable Buildings Program as appropriate.
- Adoption of the ESM that will provide specific guidance to bureaus and offices on analyzing and identifying impacts associated with energy usage and alternative energy sources in environmental documents prepared pursuant to NEPA.

**6. GOAL 6: Water Use Efficiency and Management**

**A. Goal Description**

EO 13514 established water consumption reduction goals for potable and industrial, landscaping, and agricultural water use. Specifically:

- Reduce potable water consumption intensity, measured in gallons per gross square foot, by 2% annually, relative to FY 2007, so that a 26% reduction is achieved by the end of FY 2020
- Reduce industrial, landscaping, and agricultural water consumption by 2% annually or 20%, relative to FY 2010 baseline, by the end of FY 2020
- Promote and implement water reuse strategies
- Achieve objectives established by EPA Stormwater Management Guidance

Specific strategies and methodologies to achieve the water use efficiency goal are discussed below.

## **B. Agency Leads for Goal**

Assistant Secretary – Policy, Management and Budget

Deputy Assistant Secretary – Budget, Finance, Performance and Acquisition

Deputy Assistant Secretary – Water and Science

Director, Office of Acquisition and Property Management

See Appendix 1 for detailed descriptions of responsibilities.

## **C. Implementation Methods**

On February 22, 2010, Secretary Salazar signed a Secretarial Order establishing a new water sustainability strategy for the United States called WaterSMART – Sustain or Manage America’s Resources for Tomorrow. Through this Order, the Department will pursue a sustainable water supply for the nation by establishing a framework to provide federal leadership and assistance on the efficient use of water, to identify adaptive measures needed to address climate change and future demands, to integrate water and energy policies to support the sustainable use of all natural resources, and to coordinate the water conservation activities of the Department’s various bureaus and offices. This order will develop a water footprint reduction program for facilities and water-consuming operations within the Department; will provide input and information on water conservation methods and technology to bureaus and offices; and work together with the Senior Sustainability Officer in order to achieve the Department’s water consumption goal set forth in Executive Order 13514. This order fully supports EO 13514 policy to conserve and protect water resources through efficiency and management.

The Department’s bureaus utilize DOE FEMP Water Conservation Best Management Practices in new construction and building renovations where applicable, to meet potable water conservation goals. Specifically, bureaus design and install low-flow or ultra-low-flow plumbing fixtures in all new facilities. Landscaping design and

construction has emphasized the use of native plant species minimization or elimination of artificial irrigation, and maximizing efficiency of necessary irrigation through the use of drip systems, precipitation detection systems, and optimal timing. Public information related to drought and water conservation is available at many facilities and is recognized as a Best Management Practice in the FEMP guidance. In addition, the Department's Sustainable Building Assessment and Compliance Tool provides detailed information on meeting Guiding Principles requirements for water quality and performance.

The Department is committed to meeting the FY 2020 water reduction goals. However, these out-year goals will be challenging to meet. Energy and water evaluations at covered facilities required by EISA will assist in the identification of high-priority water conservation measures for potable water, which may be implemented by appropriated funding, alternative financing, or partnerships.

Many departmental facilities draw water from unmetered sources. Numerous remote buildings are small and staffed by only a few employees where overall water use is low. Energy and water management responsibilities at these locations are often a collateral duty. While there are estimating practices to establish a rough baseline for water use, estimating the water savings after the implementation of water conservation measures results in estimated water use intensity. In order to accurately assess water intensity reductions all facilities will need to be metered. This can be achieved through a phased approach by incorporating water meters in all new building designs and by identifying existing facilities with significant water use. Once meters are installed, an accurate baseline can be determined and reduction strategies can be applied. Water reuse strategies are to be considered and used where feasible and/or allowed by state and local laws. For new building designs or where redevelopment affects site hydrology, the departmental bureaus are required, to the maximum extent technically feasible, to maintain or restore the predevelopment hydrology of the site with regard to temperature, rate, volume, and duration of flow using site planning, design, construction, and maintenance strategies.

In addition, no data currently exists for industrial, agricultural, and landscaping water use. Agency are awaiting specific FEMP water guidance relative to EO 13514 definitions for this water use category, as well as definition and exemption rules on mission dependent nonconsumptive water use. Bureaus will need to identify where bureau water use fits into the guidance definition for each water category and identify and justify nonconsumptive water uses. While baseline estimates can be established using calculation methodology, these estimates will be unreliable and unverifiable. Therefore, metering of industrial, agricultural, and landscape water use will eventually be needed to measure actual reductions. The establishment of the FY 2010 baseline for industrial, agricultural, and landscaping water use will be resource intensive. This is further exacerbated as the majority of individuals working to establish the FY 2010 water baseline are also working to establish the FY 2008 and FY 2010 GHG comprehensive inventories.

Training and awareness further promotes the Department's efforts to achieve and sustain water conservation progress. DOE FEMP GovEnergy conference, EPA's WaterSense Program, and various webinar training sessions greatly contribute to educating the Department's energy managers, and field personnel. Many of Department bureaus showcase energy efficiency, renewable energy, and water conservation projects through kiosks and interactive displays. The Secretary's Youth Initiative further promotes conservation efforts and instills involvement with today's youth who play a key role in water management efficiencies.

#### D. Positions

The Department employs a diverse portfolio of environmental protection specialists, engineers, program analysts, geologists, hydrologists, and others who work on actions associated with implementation of the SSPP. Some upper management staff may work up to 100% of their time directly or indirectly on actions associated with compliance and sustainability goals. At the middle management and the field or facility levels, the responsibilities for implementation of actions associated with the SSPP are collateral duties.

Challenges to implementing the SSPP include determining if current staffing levels are adequate to accomplish the new requirements (inventories, monitoring, reporting). A need may exist to acquire assistance through hiring actions and or contracting to accomplish the new requirements. The Department may need to conduct a gap analysis on current monitoring and reporting capabilities versus new monitoring and reporting requirements to track progress on EO 13514 goals.

Additionally, the Department may need to conduct a survey of all bureaus and offices to determine whether or not it is adequately staffed department wide to fully implement and report on the goals.

#### E. Planning Table

<b>WATER USE EFFICIENCY &amp; MGMT</b> * Stretch Goals	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)	%	6%	8%	10%*	12%*	14%*	16%*		26%*
Industrial, Landscaping, and Agricultural Water Reduction Targets (gal reduced from FY10 base year)	%	-	2%	4%	6%	8%	10%	...	20%
Planned Industrial, Landscaping, and Agricultural Water Reduction (gal reduced from FY10 base year)	%	-	2%	4%*	6%*	8%*	10%*		20%*

#### F. Agency Status

In FY 2009, the Department reported a 5.7% reduction in water intensity, measured in gallons per gross square foot, relative to FY 2007, thus exceeding the FY 2009 goal of 4%. Per EO 13514, a baseline for industrial, agricultural, and landscaping water use

must be established by the end of Q4 FY 2010. As noted above, agencies are waiting for baseline development guidance from DOE FEMP. This category of water use is not currently metered or collected and will involve extensive resource time to properly capture. In addition, the timeframe for collecting and reporting both potable water intensity and industrial, agricultural, and landscaping water use coincides with the collecting and reporting of FY 2008 and FY 2010 GHG scopes 1, 2, and 3 comprehensive inventories. Implementation will proceed based on available staff resources, which are often constrained due to collateral responsibilities to other programs.

***Specific goals, targets, milestones, and/or planning actions for this goal include:***

- The Department will strive to meet the FY 2010 water intensity reduction goal of 6% and report results by January 31, 2011.
- The Department will endeavor to develop an industrial, agricultural, and landscaping water use baseline consistent with DOE FEMP guidance by January 31, 2011.
- The Department will seek exemption for mission dependent nonconsumptive water use, such as water use associated with wildlife and habitat restoration and preservation, livestock/animal health and safety (drinking and feeding operations), fish hatcheries, wildland fire fighting, and water subject to U.S. treaty agreements and water rights contracts by the end of Q3 FY 2011.
- The Department will identify policy gaps and begin the process to update policy to incorporate the new EO 13514 requirements by the end of Q4 CY 2011.

## **7. GOAL 7: Pollution Prevention and Waste Elimination**

### **A. Goal description**

In accordance with EO 13514 - Federal Leadership in Environmental, Energy, and Economic Performance, the Department has set the following as its goals in the area of pollution prevention and waste management:

- Increase source reduction of pollutants and waste
- Divert at least 50% nonhazardous solid waste by FY 2015, excluding construction and demolition (C&D) debris
- Divert at least 50% C&D materials and debris by FY 2015
- Reduce printing paper use
- Increase use of uncoated printing and writing paper containing at least 30% postconsumer fiber
- Reduce and minimize the acquisition, use, and disposal of hazardous chemicals and materials
- Increase diversion of compostable and organic materials from the waste stream
- Implement integrated pest management and landscape management practices to reduce and eliminate the use of toxic and hazardous chemicals and materials

- Increase agency use of acceptable alternative chemicals and processes
- Decrease agency use of chemicals to assist agency in achieving FY 2020 GHG reduction targets [See Section II – goals 1 and 2 above]
- Report in accordance with Sections 301-313 of the Emergency Planning and Community Right-to-Know Act (EPCRA) of 1986

## **B. Agency Leads for Goal**

Assistant Secretary - Policy, Management and Budget

Deputy Assistant Secretary – Budget, Finance, Performance and Acquisition

Deputy Assistant Secretary – Policy and International Affairs

Director, Office of Acquisition and Property Management

Director, Office of Environmental Policy and Compliance

See Appendix 1 for detailed descriptions of responsibilities.

## **C. Implementation Methods**

Environmental management systems audits and environmental compliance audits conducted by the bureaus at appropriate facilities include review of pollution prevention practices and waste management. Departmental facilities must comply with federal requirements such as the Toxics Release Inventory (TRI), the Emergency Planning and Community Right-to-Know-Act of 1986, and the pollution prevention goals in EO 13514. Noncompliance with these laws and all of the requirements of EO 13423 and EO 13514 would be highlighted in these audits. Audit findings in this area are documented and corrective actions are recommended to responsible officials at the facilities.

The Department of the Interior Green Procurement Plan (GPP) <<http://www.doi.gov/greening/procurement/GPP.pdf>> outlines requirements and methods of implementation for many pollution prevention goals. It highlights the requirement to purchase paper with a minimum 30% postconsumer content and describes requirements to minimize the use of toxic chemicals. Following this plan, each bureau also has a green procurement plan.

The following Department Manual chapters also relate to pollution prevention:

- 515 DM 3 Recycling Programs  
[http://elips.doi.gov/app\\_DM/act\\_getfiles.cfm?relnum=3197](http://elips.doi.gov/app_DM/act_getfiles.cfm?relnum=3197) provides departmental policy, responsibilities, and functions regarding the many different recycling initiatives that have been, or that will be started in bureaus and offices throughout the Department. It is departmental policy that each bureau and office shall develop, implement, and conduct a thorough recycling program in order to:

- Assure compliance with the spirit and intention of applicable federal, state, and local recycling requirements and provisions
- Promote sound environmental practices by preventing pollution and recovering resources through recycling
- Educate and monitor for recycling participation at all activities (including contractors, concessionaires, etc.)
- Identify and assign recycling responsibility
- 517 DM 1 Integrated Pest Management provides policy and requirements for the Department's bureaus and offices to incorporate Integrated Pest Management (IPM) into their pest management activities. The policy applies to all departmental bureau and office activities involving the prevention, detection, and management of native and nonnative pest species, including invasive species, on the departmental properties. The Department's policy is to manage pests and use IPM principles in a manner that reduces risks from both the pests and associated pest management activities. [http://elips.doi.gov/app\\_DM/act\\_getfiles.cfm?relnum=3742](http://elips.doi.gov/app_DM/act_getfiles.cfm?relnum=3742)
- 518 DM 1 Comprehensive Waste Management prescribes departmental policy, responsibilities, and functions regarding management of wastes on departmental lands and facilities through improved awareness, program management, and accountability. The Department has major responsibility for the management and control of waste on departmental lands and facilities, and associated response actions, in compliance with applicable statutes and regulations. [http://elips.doi.gov/app\\_DM/act\\_getfiles.cfm?relnum=2998](http://elips.doi.gov/app_DM/act_getfiles.cfm?relnum=2998)

Comprehensive waste management for departmental lands and facilities will be based upon the following four principles:

- Wherever feasible, the Department will seek to prevent the generation and acquisition of hazardous wastes
- Whenever waste generation is unavoidable, the Department will work to reduce the amounts (toxicity or risk) generated through the use of sound waste management practices
- The Department will manage waste materials responsibly to protect not only the resources entrusted to it, but the many people who live and work on departmental managed lands, and those who enjoy those lands and facilities each year
- Wherever feasible, the Department will move aggressively to clean up and restore areas under its care that are contaminated by pollution
- 518 DM 2 on Compliance with Waste Management Requirements prescribes departmental policy, responsibilities, and functions regarding compliance with Federal, State, interstate and local waste management requirements that affect departmental lands and facilities. [http://elips.doi.gov/app\\_DM/act\\_getfiles.cfm?relnum=3012](http://elips.doi.gov/app_DM/act_getfiles.cfm?relnum=3012)

It is the policy of the Department to:

- Comply with federal, state, interstate, and local waste management requirements, where applicable, in departmentally managed lands and facilities. This includes payment of fees for required registrations and permits
- Perform required assessments, monitoring, pollution prevention, recordkeeping, reporting, response actions, and training on a timely basis
- Monitor non-Interior groups whose activities are on departmental lands and facilities (e.g., claimants, concessionaires, contractors, permittees, and lessees) to ensure that they comply with federal, state, interstate, and local waste management requirements
- Aggressively pursue potentially responsible parties to correct their contamination of departmental lands and facilities or to recover the costs of cleanup

In future years, these pollution prevention and waste management goals will be monitored and tracked through the Department's Sustainability Council. The Council currently includes a work group for Life-cycle Management which covers pollution prevention and solid waste management as well as green procurement. Through the Council the Department will engage stakeholders in the area of pollution prevention, work with them to review existing departmental policy and programs, and identify preferred approaches and methods for achieving these goals. The work group will update departmental policy and develop programs to best meet the needs of the Department and its bureaus in this area.

#### **D. Positions**

The Department employs a diverse portfolio of environmental protection specialists, engineers, program analysts, geologists, hydrologists, and others who work on actions associated with implementation of the SSPP. Some upper management staff may work up to 100% of their time directly or indirectly on actions associated with compliance and sustainability goals. At the middle management and the field or facility levels, the responsibilities for implementation of actions associated with the SSPP are collateral duties.

Challenges to implementing the SSPP include determining if current staffing levels are adequate to accomplish the new requirements (inventories, monitoring, reporting). A need may exist to acquire assistance through hiring actions and or contracting to accomplish the new requirements. The Department may need to conduct a gap analysis on current monitoring and reporting capabilities versus new monitoring and reporting requirements to track progress on EO 13514 goals.

Additionally, the Department may need to conduct a survey of all bureaus and offices to determine whether or not it is adequately staffed department-wide to fully implement and report on the goals.

## E. Planning Table

<b>Pollution Prevention &amp; Waste Elimination</b>	<b>Units</b>	<b>FY 10</b>	<b>FY 11</b>	<b>FY 12</b>	<b>FY 13</b>	<b>FY 14</b>	<b>FY 15</b>
Non-Hazardous Solid Waste Diversion Targets (non C&D)	%	38%	41%	44%	46%	48%	50%
C&D Material & Debris Diversion Targets	%	25%	30%	35%	40%	45%	50%

## F. Agency Status

The FY 2008 report to OMB on Sustainable Practices: Green Purchasing, Waste Management and Chemicals Management presents the Department's most current data in the area of pollution prevention and waste management. In FY2008 the Department had a waste diversion rate of 38%. Of the non-diverted waste, 6,940 tons were sent to waste-to-energy facilities for disposal. Of the reporting facilities, 93% had active recycling programs. Of those same facilities, 93% of residential housing sites reported having active recycling programs. In the same report, 105 of the Department's facilities reported having composting programs, which diverted an estimated 23,213 tons of waste.

Data for the Sustainable Practices report are collected through an online database. Changes are made to the database annually to reflect changes in the data call. Almost 1500 departmental facilities are asked to enter solid waste and green purchasing data each year. The facilities' data are rolled-up and approved at the regional, Bureau, and Departmental levels. The system collects detailed information on the commodities recycled and whether waste is disposed of through waste-to-energy facilities.

As part of the Sustainable Practices data call the Department requests data for the disposal and diversion of construction and demolition waste; however, while we know the tons diverted, we do not know the total amount of C&D waste generated. Reporting facilities diverted 67,329 tons of construction and demolition waste, but it is unclear how much C&D waste was not diverted. As part of efforts to implement this plan, the Department will seek to improve the quality of this data so that we may accurately report construction and demolition waste diversion rates.

The Department currently does not centrally manage TRI or EPCRA requirements. Bureaus and their facilities are responsible for complying with these federal disclosure laws.

Education and outreach programs will be a key component of future efforts to achieve pollution prevention and solid waste reduction goals. With an outreach program developed in conjunction with the work group, the Department will provide tools and best practices to the bureaus and offices, regional offices, and facilities in the field.

The Department submitted a General Toxic and Hazardous Chemicals Goals and Strategy Plan to OFEE in January 2008. In this plan, the Department provided guidance to its bureaus and offices that toxic and hazardous chemicals be managed through

EMS. The Department will also be including toxic and hazardous chemicals management in its department-level EMS, which is currently under development.

Department bureaus and offices have taken steps to manage toxic and hazardous chemicals as well. They continue to manage hazardous chemicals through environmental compliance, environmental auditing, and hazard communications programs. The Bureau of Reclamation reports hazardous chemicals to the Department of Homeland Security for the Chemical Facility Anti-Terrorism Standards requirement. The National Park Service assists parks in phasing out the use of leaded ammunition and identifies environmentally preferable alternatives to toxic and hazardous chemicals.

***Specific goals, targets, milestones, and/or planning actions for this goal include:***

- The Department will strive to meet the pollution prevention and waste management goals as required in EO 13514.
- By the end of Q4 FY 2011, through the Department Sustainability Council, the Department will evaluate its current status with regard to pollution prevention and waste management and collaborate to establish the path forward and relevant milestones to achieving the goals of this section.
- Additional resources could be directed to support the development of a detailed municipal solid waste management guide to provide Bureaus, Offices and facilities with the information needed to implement and improve recycling programs. If possible, this guide will be completed by the end of Q4 FY 2011.
- By the end of Q4 FY 2011 the Department Sustainability Council will explore options for developing a data collection system that will allow staff responsible for solid waste management to enter recycling and trash data throughout the year and roll-up that data for annual reporting.

**8. GOAL 8: Sustainable Acquisition**

**A. Goal Description**

EO 13514 establishes a sustainable acquisition goal to advance sustainable acquisition to ensure that 95% of new contract actions, including task and delivery orders, include energy efficient, water efficient, biobased, environmentally preferable, and non-ozone depleting and they will also contain recycled content or are non-toxic or less toxic alternatives. The Department will ensure that 95% of all new contract actions include green requirements as specified by the EO 13514 by the end of Q4 FY 2012.

The Department plans to fully implement the requirements of EO 13514, by the end of Q4 FY 2012. For example, the Department plans a phased approach to achieve the 95% goal of incorporating green standards in its new contract actions and contract modifications. Upon achievement of the 95% goal, the Department will maintain the goal in new contracts and contract modifications.

To ensure compliance with EO 13514, the Department will revise its Green Procurement Plan (GPP) and will issue new policy to require compliance with EO 13514. The new policy will be released by the end of Q4 FY 2011. The policy will be more robust than its predecessor, Department of Interior Acquisition Policy Release (DIAPR) 2008-7.

## **B. Agency Leads for Goal**

Assistant Secretary - Policy, Management and Budget

Deputy Assistant Secretary – Budget, Finance, Performance and Acquisition

Director, Office of Acquisition and Property Management

See Appendix 1 for detailed descriptions of responsibilities.

## **C. Implementation Methods**

The Department GPP will be updated to include EO 13514 green purchasing requirements. The DOIU will offer environmental training courses and bureaus will provide environmental training for acquisition personnel. By revising the GPP to include EO 13514, controls will be established, by which performance can be measured. By offering environmental training in various venues, employees' awareness of the new requirements will be enhanced.

The Department will update its GPP to include the requirements of EO 13514. The revised GPP will be released by the end of Q4 FY 2011. Specifically, the GPP includes all federally-mandated designated products, to include the following types of products:

- Energy efficient (Energy Star or FEMP designated), and low standby power devices
- Water efficient products
- Biobased products
- Environmentally preferable products/services
- Recycled content products
- Nontoxic or less-toxic alternatives
- SNAP/non-ozone depleting substances

## **D. Positions**

The Department employs a diverse portfolio of environmental protection specialists, engineers, program analysts, geologists, hydrologists, and others who work on actions associated with implementation of the SSPP. Some upper management staff may work up to 100% of their time directly or indirectly on actions associated with compliance and sustainability goals. At the middle management and the field or facility levels, the responsibilities for implementation of actions associated with the SSPP are collateral duties.

Challenges to implementing the SSPP include determining if current staffing levels are adequate to accomplish the new requirements (inventories, monitoring, reporting). A

need may exist to acquire assistance through hiring actions and or contracting to accomplish the new requirements. The Department may need to conduct a gap analysis on current monitoring and reporting capabilities versus new monitoring and reporting requirements to track progress on EO 13514 goals.

Additionally, the Department may need to conduct a survey of all bureaus and offices to determine whether or not it is adequately staffed department wide to fully implement and report on the goals.

### E. Planning Table

Below are the targets for implementation of EO 13514. The Department plans to fully implement the requirements of EO 13514, by the end of Q4 FY 2012. For example, Interior plans a phased approach to achieve the 95% goal of incorporation of green standards in its new contract actions and contract modifications. Upon achievement of the 95% goal, the Department of the Interior will endeavor to maintain the incorporation of green standards in 95% of new contracts and contract modifications.

Sustainable Acquisition	Units	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15	FY 16	FY 17	FY 18	FY 19	FY 20
New Contract Sustainability Target	%	50%	75%	95%	Hold							
Energy Efficient Products (Energy Star, FEMP-designated, and low standby power devices)	%	50%	75%	95%	Hold							
Water Efficient Products	%	50%	75%	95%	Hold							
Biobased Products	%	50%	75%	95%	Hold							
Recycled Content Products	%	50%	75%	95%	Hold							
Environmentally Preferable Products/Services (excluding EPEAT)	%	50%	75%	95%	Hold							
SNAP/non-ozone depleting substances	%	25% 35	% 40	%	50%	75%	95%	Hold	Hold	Hold	Hold	Hold
New Contract Actions with Sustainable Requirements	%	50%	75%	95%	Hold							
Bureaus compliant with EO 13514	%	60%	70%	80%	90%	Hold						

### F. Agency Status

The Department has a comprehensive GPP that includes energy efficient, water efficient, biobased, environmentally preferable, non-ozone depleting, products that also contain recycled content, and nontoxic or less-toxic alternatives. In addition to the Department Conference on the Environment, the Department has a robust training

program available for Contracting Officers, contracting officers technical representatives and program managers and analyst. The DOIU offers environmental courses throughout the year and across the nation.

To ensure compliance, the Department conducts acquisition management reviews of its bureaus and offices. Elements in the review ascertain the incorporation of green requirements in contract vehicles. In fulfillment of the ARRA, the Department developed checklists, which includes triggers for the incorporation of green requirements as appropriate.

Bureaus and offices employ various strategies to ensure compliance and as appropriate have developed corrective action plans to address shortcomings in GPP preference program. Bureaus and offices have supplemented the DOIU course offerings with bureau-centric training for contracting officers.

The Department will strive to meet the sustainable acquisition goals as required by EO 13514. The Department will also continue its training, education, and acquisition management reviews.

***Specific goals, targets, milestones, and/or planning actions for this goal include:***

- The Department GPP will be updated to include EO 13514 and will be issued as Department policy by the end of Q4 FY 2011.
- Training opportunities will be offered in partnership with DOIU for acquisition personnel and for key bureau acquisition representatives through the Life Cycle Management workgroup by the end of Q4 FY 2011.
- Life Cycle Management acquisition representatives working in coordination with bureau procurement chiefs will develop measurement tools by the end of Q4 FY 2011 to ensure that 95% of new contract actions and contract modifications contain green standards as specified in EO 13514.

**9. GOAL 9: Electronic Stewardship and Data Centers**

Note, narratives below are divided into electronic products and data centers.

**A. Goal Description (Electronic Stewardship)**

The Department's targets are:

- Ensuring procurement preferences for EPEAT-registered electronic products
- Establishing and implementing policies to enable power management, duplex printing, and other energy-efficient or environmentally preferable features on all eligible agency electronic products

- Employing environmentally sound practices with respect to the agency's disposition of all agency excess or surplus electronic products
- Ensuring procurement of Energy Star and FEMP-designated electronic equipment

**B. Agency Leads for Goal (Electronic Stewardship)**

Assistant Secretary – Policy, Management and Budget

Deputy Assistant Secretary – Technology, Information, and Business Services

Deputy Assistant Secretary – Budget, Finance, Performance and Acquisition

Deputy Assistant Secretary – Policy and International Affairs

Chief Information Officer

Director, Office of Acquisition and Property Management

Director, Office of Environmental Policy and Compliance

See Appendix 1 for detailed descriptions of responsibilities

**C. Implementation Methods (Electronic Stewardship)**

The Department's Electronics Stewardship (ES) Program is an interdisciplinary program that benefits from joint leadership by those that oversee the four major ES disciplines: environmental, IT, acquisition, and property management. ES policy and program implementation is lead by the Electronics Stewardship Task Force (ES Task Force). The ES Task Force is co-chaired by OEPC, the Office of Acquisition and Property Management, and the Office of the Chief Information Officer. The ES Task Force has active representatives from each bureau for each discipline, and close coordination with budget formulation and budget execution. Thus the ES program is tightly interwoven with the IT, property management, acquisition, environmental, budget formulation, and budget execution policies and programs.

All methods to implement the ES program are in the Department's Electronics Stewardship Implementation Plan (ES Plan). The current ES Plan, dated June 2008, is nearly fully implemented. The Department has an updated ES Plan in draft that addresses: 1) completing the remaining power management goal, 2) improving data verification, and 3) maintaining compliance. An updated ES Plan will be issued to the bureaus after issuance of EO 13514 implementing guidance.

Progress on implementation of the ES Plan is measured by a comprehensive year-end ES program assessment and a midyear check-in. These program assessments coincide with the OMB scorecard submission. The bureau ES program leads submit data identifying progress on milestones, implementation gaps, challenges for resolution, and opportunities for mutually beneficial program development as well as opportunities for

going beyond compliance. Bureaus are rated on progress on the departmental internal scorecard.

Detailed information about implementation methods, milestones, and strategies are available in the ES Plan.

A copy of the ES Plan and its appendices is available on the web at: [www.doi.gov/greening/electronics](http://www.doi.gov/greening/electronics).

**D. Positions (Electronic Stewardship)**

The Department employs a diverse portfolio of environmental protection specialists, engineers, program analysts, geologists, hydrologists, and others who work on actions associated with implementation of the SSPP. Some upper management staff may work up to 100% of their time directly or indirectly on actions associated with compliance and sustainability goals. At the middle management and the field or facility levels, the responsibilities for implementation of actions associated with the SSPP are collateral duties.

Challenges to implementing the SSPP include determining if current staffing levels are adequate to accomplish the new requirements (inventories, monitoring, reporting). A need may exist to acquire assistance through hiring actions and or contracting to accomplish the new requirements. The Department may need to conduct a gap analysis on current monitoring and reporting capabilities versus new monitoring and reporting requirements to track progress on EO 13514 goals.

Additionally, the Department may need to conduct a survey of all bureaus and offices to determine whether or not it is adequately staffed department wide to fully implement and report on the goals.

**E. Planning Table**

<b>ELECTRONIC STEWARDSHIP</b>	Units	FY 10	FY 11	FY 12	FY 13
(Desktops, laptops, and monitors) % of device types covered by current Energy Star specifications that must be energy-star qualified	%	95%	hold	hold	hold
(All others, including printing and imaging equipment) % of device types covered by current Energy Star specifications that must be energy-star qualified	%	Un-known	90%	95%	hold
% of electronic assets covered by sound disposition practices <sup>i</sup>	%	90%	95%	100%	hold
(Desktops, laptops, and monitors) % of agency, eligible electronic products with power management in use	%	Un-known	95%	100%	hold

(All others, including printing and imaging equipment) % of agency, eligible electronic products with power management in use	%	Un-known	95%	100%	hold
% of agency, eligible electronic products with other energy-environmentally preferable features (duplex printing) actively implemented and in use	%	Un-known	95%	100%	hold
% of covered electronic product acquisitions that are EPEAT- registered	%	95%	hold	hold	hold

**F. Agency Status (Electronic Stewardship)**

The Department has a long history of championing electronics stewardship life-cycle management best practices. Examples of past commitment to electronics stewardship include the following:

- In 2001 the Department was an early adopter of the Federal Prison Industries (UNICOR) electronics recycling program to ensure departmental facilities had an option for environmentally sound disposal of electronic products.
- In 2003, the Department began participating in the earliest stages of the Electronic Product Environmental Assessment Tool (EPEAT) development.
- In 2004, the Department was an original signatory to the Federal Electronics Challenge Memorandum of Understanding.
- Beginning in 2004 through contract award in 2005, the Department became the first large institutional purchaser to pilot test the EPEAT criteria.
- The Department has been an active member of the Federal Electronics Stewardship Working Group and its predecessors.
- The Department is a Federal Electronics Challenge member.

After signature of EO 13423, the Department developed the ES Plan. It was signed in June 2008. The ES Plan creates and implements agency policy for the Department’s electronic product life-cycle management program including: purchase of Energy Star certified and EPEAT registered electronics, activations of Energy Star power management features, environmentally sound disposal of electronics, and purchase of energy-efficient servers and data centers.

***Compliance in Advance of the December 2010 Due Date:***

The Department has fully implemented the requirement to purchase 100% Energy Star certified and 95% EPEAT registered electronics for desktops, laptops, and monitors.

The Department has fully implemented the requirement to dispose of electronics in an environmentally sound manner by reusing working equipment through the GSA Xcess process and the GSA Computers for Learning Program. Nonworking equipment is recycled through UNICOR, and private recyclers. The private recyclers are selected using best practices posted to the Federal Electronics Challenge website. During the next program assessment, data will be collected about the use of Responsible Recyclers (R2) certified recyclers.

For these fully implemented goals, the Department's will maintain compliance, improve compliance where possible, and continue efforts to improve compliance data verification

***Compliance on Track for the December 2010 Due Date:***

The Department has partially implemented the requirement for activating energy star power management features.

The Department has a policy in place that 100% of appropriate desktops, laptops, and monitors will be power managed. The Department's priority for power management implementation begins with these items since combined, they are one of the Department's largest pools of energy-consuming electronic products.

Several of the Department's sites have conducted pilot tests for power management of desktops, laptops, and monitors via power management software installed on the network that allows for automated shut-off during off-hours while sustaining mandatory IT operational management capabilities such as software patch management.

Also, OEPC put together a ROI paper showing the energy savings and the benefit to the Department's bottom line. The ROI paper recommended a department-wide network power management solution. This approach was approved by the Chief Information Officer, the Deputy Assistant Secretary for Budget, Finance, Performance, and Acquisition, and the Director of OEPC. Currently meetings are taking place to determine the path forward to ensure that the IT budgets used to purchase, implement, and maintain network power management software can be reimbursed by the facility utility budgets that will see the return on investment, or that IT budgets can be compensated through another mechanism. The Office of the Chief Information Officer has the lead for determining the path forward on a department-wide networked power management solution.

Once power management for desktops, laptops, and monitors is addressed, the Department will ramp up to address power management for other electronic products owned by the Department. This issue will be vetted at the Sustainability Council to develop recommended courses of action. A path forward will be initially discussed at the technical work group level and subsequently briefed to the Implementation Committee for endorsement and review of policy, proposed phased timeline, funding or other department-level considerations. The department-level EMS is the management tool to provide ongoing oversight of program advancements and documentation of potential challenges.

***Duplex Printing Policy:***

The Department has successes in implementing duplex printing.

Since 2005 the department-wide mandatory-use IT hardware contract has offered a duplex printing option available for purchase with all printers on the contract.

Also, the department-wide Strategic Sourcing Initiative for Multifunctional Printing Devices contract requires all machines to be Energy Star and programmed at the manufacturer with duplex printing as the default factory setting.

To address the creation of a department-wide duplex printing policy and ensure broader implementation of duplex printing best practices, the Sustainability Council will develop recommended courses of action. Suggestions for these will be initially discussed at the technical workgroup level and subsequently briefed to the Implementation Committee for endorsement and review of policy, proposed phased timeline, funding or other department-level considerations. The department-level EMS is the management tool to provide ongoing oversight of program advancements and documentation of potential challenges.

***Specific goals, targets, milestones, and/or planning actions to achieve electronics stewardship goals are:***

- Meet with GSA to discuss renegotiating utility service contracts so that the Department can realize cost savings that result from energy savings initiatives, such as power management of desktops, laptops and computers by the end of Q1 FY 2011.

**A. Goal Description (Data Centers)**

The Department's targets are below:

- Update agency policy to ensure implementation of best management practices for energy-efficient management of servers and federal data centers
- Identify how the Department will meet technology energy consumption reduction goals in its data centers.
- Define how the Department will meet the technology energy reduction goals in data centers.

**B. Agency Leads for Goal (Data Centers)**

Assistant Secretary - Policy, Management and Budget

Deputy Assistant Secretary – Technology, Information, and Business Services

Chief Information Officer

See Appendix 1 for detailed descriptions of responsibilities

**C. Implementation Methods (Data Centers)**

The Department's Innovations and Efficiencies Team (DIET) was chartered to make recommendations on how the Department can consolidate major components of its IT infrastructure, including data centers and the assets therein. The team is leading the development of detailed, executable plans associated with data center consolidation.

The Department Office of the Chief Information Officer is coordinating and managing this effort and will respond to requests associated with this initiative on behalf of the Department.

The Office of the Chief Information Officer and the DIET, working in conjunction with the Office of Environmental Policy and Compliance, will issue policy on meeting electronic stewardship objectives. The DIET Infrastructure Consolidation project submitted the Department's Federal Data Center Consolidation Initiative (FDCCI) to OMB on August 30, 2010. This Plan also references how the Department's data center consolidation efforts relate to this Strategic Sustainability Performance Plan.

Establishing an accurate baseline inventory of IT assets, including servers, data storage units, and associated business applications, is a primary objective of the initiative. The Department is establishing a repeatable systematic collection method for IT assets via electronic auto-discovery tools. The DIET IT asset inventory is an integral part of the Infrastructure Consolidation project and will focus on developing the baseline inventory. Initial and Final IT Asset Inventories were provided to OMB on April 30, 2010 and July 30, 2010. The Department is also establishing policies and technical configuration standards to enable the successful deployment of automated network scans. The team is working with the respective departmental bureaus and offices to analyze and validate information generated through the auto-discovery. This will confirm team findings and conclusions. The results of the IT asset inventory are key inputs to the Final Data Center Consolidation Plan submitted to OMB on August 30, 2010.

One of the Department's goals is to make IT "green." This will be accomplished by:

- Reducing energy usage at data centers
  - Closing inefficient data centers. 253 data centers/closets are targeted for consolidation.
  - Optimizing cooling, power, IT assets, and networks
- Reducing energy usage at co-located sites.
  - Reducing redundant equipment at collocated sites.

#### **D. Positions (Data Centers)**

The Department employs a diverse portfolio of environmental protection specialists, engineers, program analysts, geologists, hydrologists, and others who work on actions associated with implementation of the SSPP. Some upper management staff may work up to 100% of their time directly or indirectly on actions associated with compliance and sustainability goals. At the middle management and the field or facility levels, the responsibilities for implementation of actions associated with the SSPP are collateral duties.

Challenges to implementing the SSPP include determining if current staffing levels are adequate and with appropriate skills and experience to accomplish the new requirements (inventories, monitoring, reporting). The DIET Program includes a Workforce Planning function to fully analyze the Department's staffing needs to accomplish the new requirements. The Department may need to conduct a gap analysis

on current monitoring and reporting capabilities versus new monitoring and reporting requirements to track progress on EO 13514 goals.

Additionally, the Department may need to conduct a survey of all bureaus and offices to determine whether or not it is adequately staffed department-wide to fully implement and report on the goals.

**E. Planning Table (Data Centers)**

Establishing annual performance metrics in the table below is part of the FDCCI Data Center Consolidation Plan. These are being determined and will be provided in future updates.

<b>DATA CENTERS</b>	Units	FY 10	FY 11	FY 12	FY 13
% of cloud activity hosted in a data center	%	TBD	TBD	TBD	TBD
% of agency data centers independently metered or advanced metered and monitored on a weekly basis	%	1%	7%	TBD	TBD
Reduction in the number of agency data centers	%	3%	7%	TBD	TBD
% of agency data centers operating with an average CPU utilization of 60-70%	%	1%	4%	TBD	TBD
% of agency data centers operating at a PUE range of 1.3 – 1.6	%	1%	7%	TBD	TBD
% of agency data center activity implemented via virtualization	%	TBD	TBD	TBD	TBD

**F. Agency Status (Data Centers)**

The Department is actively pursuing data center co-location and consolidation in order to realize cost savings, operational efficiencies, and implementing “green IT” through significant reductions in energy consumption. This effort specifically will target the consolidation of enterprise server, storage, and data centers infrastructures throughout the Department’s computing environment nationwide. The DIET Infrastructure Consolidation project submitted the Department’s Federal Data Center Consolidation Initiative (FDCCI) to OMB on August 30, 2010. This Plan also references how the Department’s data center consolidation efforts relate to this Strategic Sustainability Performance Plan.

In FY 2010, seven departmental data centers were consolidated or co-located into other departmental locations reducing energy consumption at their original locations. Since these data centers do not have power metering in place, the reduced energy can only be estimated based on equipment specifications and industry standards.

***Specific goals, targets, milestones, and/or planning actions to achieve data center management goals include:***

- The Department has adhered to OMB's FDCCI timeline and submitted these data center consolidation deliverables on schedule. These documents and files are available on request from OMB or the Department.
  - April 30, 2010 – Initial IT Asset Inventory of all departmental data centers
  - June 30, 2010 – Initial Data Center Consolidation Plan
  - July 30, 2010 – Final IT Asset Inventory of all departmental data centers
  - August 30, 2010 - Final Data Center Consolidation Plan
- The Department continues to improve our IT Asset Inventory for equipment in data centers and work with departmental bureaus/offices to create the executable Project Plan for Data Center Consolidation. This Plan will be developed to ensure 85% confidence in the scope, schedule and costs and will have an Integrated Baseline Review (IBR) by the end of Q1 FY 2011. After the IBR, this Plan will be presented to departmental leadership for approval to implement and funding to proceed with the target data center consolidations.
- On August 16, 2010, OMB communicated that the Department is required to provide an Improvement Plan for departmental IT Infrastructure to be submitted to OMB no later than September 16, 2010. The Department is expecting that a Tech-Stat related to this Improvement Plan will be scheduled before mid-October 2010. The "Green IT" mentioned above will be included in this review.
- Evaluate automated power-off technologies during off-hours for enterprise IT assets deemed not mission critical during these times (due by December 31, 2010).
- Employ forward-looking IT market offerings in the server and data storage arenas that facilitate maximizing IT asset utilization through server virtualization, data disk storage optimization, and elimination of tape backup where feasible. These solution sets seek to improve server and storage IT asset utilization by 60%+ and 50%+ respectively.
  - The DIET will complete an alternatives analysis to determine how to best proceed (due by October 31, 2010).
  - The DIET will complete a departmental Infrastructure Consolidation Plan (due by December 31, 2010).

## **10. GOAL 10: Agency Innovation**

### **A. Goal Description**

Describe any innovative methods that the Department is using to expand its sustainability mission beyond what is required in EO 13514 and EO 13423 and this Plan.

### **B. Agency Lead for Goal**

Assistant Secretary – Policy Management and Budget.

See Appendix 1 for detailed descriptions of responsibilities.

### **C. Implementation Methods**

The implementation method includes creating the opportunity for sharing best management practices across the Department. Currently this takes place through the Department's annual Environmental Achievement Awards program, the Greening Interior website ([www.doi.gov/greening](http://www.doi.gov/greening)), and the Department's GreenDOI Challenge.

The Department's Environmental Achievement Awards convey high-level recognition to departmental employees and partners for departmental projects in the areas of: waste/pollution prevention, recycling, green purchasing, environmental management systems, sustainable design/green building, and alternative fuel and fuel conservation in transportation. All nominations are screened to ensure compliance with all applicable laws, rules, and regulations.

In December 2009, the Department launched the Green DOI Challenge – “Let Your GREEN Ideas Shine Through.” The challenge is based on the President's GreenGov Challenge and all employees were invited to submit their ideas to help green the Department. In an amazing response, more than with over 1,700 ideas were submitted, in the following categories:

- Reducing greenhouse gas emissions
- Conserving energy
- Conserving water
- Eliminating waste
- Purchasing sustainable products and services
- Making our buildings sustainable
- Other innovative ideas

The ideas were reviewed by subject matter experts and the top ideas will be shared department-wide so they can be implemented by as many Department offices as possible.

### **D. Positions**

The Department employs a diverse portfolio of environmental protection specialists, engineers, program analysts, geologists, hydrologists, and others who work on actions associated with implementation of the SSPP. Some upper management staff may work up to 100% of their time directly or indirectly on actions associated with compliance and sustainability goals. At the middle management and the field or facility levels, the responsibilities for implementation of actions associated with the SSPP are collateral duties.

Challenges to implementing the SSPP include determining if current staffing levels are adequate to accomplish the new requirements (inventories, monitoring, reporting). A need may exist to acquire assistance through hiring actions and or contracting to accomplish the new requirements. The Department may need to conduct a gap analysis

on current monitoring and reporting capabilities versus new monitoring and reporting requirements to track progress on EO 13514 goals.

Additionally, the Department may need to conduct a survey of all bureaus and offices to determine whether or not it is adequately staffed department wide to fully implement and report on the goals.

**E. Planning Table**

AGENCY INNOVATION	Units	FY 10	FY 12	FY 11	FY 13	....	FY 20
Not applicable					X	X	X

**F. Agency status**

The Department has a history of developing innovative methods to expand the sustainability mission. Included below is a sample of recent accomplishments and collaborative projects that exceed requirements in EO 13514 and activities previously discussed in the Sustainability Strategic Performance Plan. Innovations can be adopted and modified by other agencies to meet sustainability goals. This list will be updated on an annual basis.

**1. Evaluation of Helix Wind Turbine Technology at Quivira National Wildlife Refuge**

In an effort to be carbon neutral by 2020, the Fish and Wildlife Service partnered with National Renewable Energy Laboratory (NREL) to assess the potential for implementation of vertical axis wind turbine (VAWT) technology on National Wildlife Refuge System sites where avian mortality from turbine collision is unacceptable and to investigate the feasibility and cost effectiveness of VAWT technology at Quivira National Wildlife Refuge in central Kansas.

**2. Tribal Energy and Environmental Information Clearinghouse (TEEIC)**

The Office of Indian Energy and Economic Development (<http://teeic.anl.gov>) and Argonne National Laboratory developed the Clearinghouse to support Indian traditional and renewable energy resource development by creating a knowledge base to assist in the development of environmental analysis, data needs assessment and collection, impact identification and analysis, project specific mitigation measures, publications, and assistance from subject matter experts. Energy Transport Corridor Siting for Tribal Planners Guidance Manual, a recent publication, describes processes for siting transmission corridors on rights-of-way across tribal lands to facilitate energy development and transmission while reducing associated environmental impacts

**3. USGS Great Lakes Science Center Super ESPC**

A joint effort by the USGS and Great Lakes Science Center resulted in savings of \$1.5 million in energy (54%) and water (60%) saving projects at the Great Lakes Science Center in Ann Arbor, MI. This was the first ESPC project in the bureau to be completed for a project of a magnitude greater than federal budgets allowed. The reduction of greenhouse gas over the 23-year contract period is significant: 28 million pounds of

CO<sub>2</sub>, 268,000 pounds of SO<sub>2</sub>, 98,00 pounds of NO<sub>x</sub> equating to annual greenhouse gas emissions of 4,850 passenger vehicles, and total energy use by 2,410 homes. USGS can now draw on knowledge gained to provide assistance to others and expedite additional bureau projects.

#### **4. Material Extended Life Tool (MELT)**

A USGS developed tool to record the disposal of qualified excess property, and to document the disposal of nonelectronic equipment and property as a means to encourage extending the life of property and materials and to reduce landfill disposal and share the technology throughout the Department of the Interior as a means to capture and collect Electronic Stewardship data.

#### **5. Cleveland-Lloyd Dinosaur Quarry Visitor Center - BLM**

A BLM project with an annual emission savings estimated at 6, 265 pounds of CO<sub>2</sub> per year. The 1,500 square foot expansion to the visitor center incorporated a photovoltaic system to meet full energy needs, with a full payback period of 2¼ years. Site interpretation staff show interested visitors how the equipment generates and uses solar energy.

#### **6. Climate Change Initiatives**

On Sept. 14, 2009, Secretary Salazar signed Secretarial Order (SO) No. 3289: Addressing the Impacts of Climate Change on America's Water, Land, and Other Natural and Cultural Resources. This SO launched the Department's first-ever coordinated strategy to address current and future impacts of climate change on America's land, water, wildlife, cultural heritage, and tribal resources.

The SO establishes the following framework through which the Department's bureaus will coordinate climate-change science and resource-management strategies.

##### Climate Change Response Council

Under the leadership of secretary, deputy secretary and counselor, this council will coordinate response to the impacts of climate change within and among our bureaus. It will also work to improve the sharing and communication of climate- change impact science, including through [www.data.gov](http://www.data.gov).

##### Eight Departmental Regional Climate Science Centers

Serving Alaska and the Northeast, Southeast, Southwest, Midwest, West, Northwest, and Pacific regions, these centers will synthesize existing climate-change-impact data and management strategies, help resource managers put the strategies into action on the ground, and engage the public through initiatives in education.

##### Network of Landscape Conservation Cooperatives

These cooperatives will engage the Department and other federal agencies, local and state partners, tribes, and the public to craft practical, landscape-level strategies for managing climate-change impacts within the eight regions. The cooperatives will focus on impacts such as the effects of climate change on wildlife migration patterns, wildfire

risk, drought, or invasive species that typically extend beyond the borders of any single national wildlife refuge, Bureau of Land Management unit, or national park.

### Section 3: Agency Self-Evaluation

---

Below are the Agency Self-Assessment questions from the Office of Management and Budget and the Council on Environmental Quality. Also provided are the Department's planned actions for the following year in six month increments.

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

#### ***Department's Planned Actions from July – December 2010:***

- Establish a 2010 baseline for industrial, landscaping, and agricultural water use
- Validate and update renewable energy registry to determine bureau on-site renewable energy generation/consumption
- Conduct an EMS internal audit
- Revise the Electronics Stewardship Implementation Plan to include new EO 13514 requirements and targets as specified in the SSPP six months after issuance of the EO 13514 implementing guidance
- Revise the Sustainable Building Implementation Plan to include new EO 13514 requirements and targets as specified in the SSPP six months after issuance of the EO 13514 implementing guidance

#### ***Department's Planned Actions from January – June 2011:***

- Develop 2008 and 2010 comprehensive GHG inventory for scope 1 & 2;
- Develop 2008 and 2010 comprehensive GHG inventory for scope 3
- Update SSPP
- Develop employee commuter survey
- Complete the department-level EMS
- Revise the Green Procurement Plan to include new EO 13514 requirements and targets as specified in the SSPP
- Review and update of Department Manual (DM) 515 Chapter 2, Environmental Auditing
- Conduct Acquisition and Financial Assistance Management Review of bureaus and offices to include environmental rating elements
- Meet goals as specified in the Electronics Stewardship Implementation Plan

- Meet goals as specified in the Sustainable Building Implementation Plan
- Develop a strategy in cooperation with bureaus and other stakeholders to achieve Goal 7 (Pollution Prevention and Waste Elimination) outcomes

## Section 4: Acronyms List

---

AFV	alternative fuel vehicle
AMP	Asset Management Plan
API	Asset Priority Index
ARRA	American Recovery and Reinvestment Act
BIA	Bureau of Indian Affairs
BLCC	basic life cycle costing
BLM	Bureau of Land Management
Btu	British thermal unit
C&D	construction and demolition
CBA	cost benefit analysis
CEQ	Council on Environmental Quality
CIO	Chief Information Officer
CFL	Computers for Learning
CFR	Code of Federal Regulations
Council	Department of the Interior Sustainability Council
CPIC	Capital Planning and Investment Control
CPU	central processing unit
CRAC	computer room air conditioning
CWA	Clean Water Act
Department, the	Department of the Interior
DIAPR	Department of the Interior Acquisition Policy Release
DIET	Department Innovations and Efficiency Team
DMCI	deferred maintenance and capital improvements
DOE	Department of Energy
DOG	Deputies Operations Group
DOIU	Department of the Interior University
ECM	Environmental Compliance Memorandum
EISA	Energy Independence and Security Act
EMS	Environmental Management System
EO	executive order
EPA	Environmental Protection Agency
EPAct	Energy Policy Act
EPCRA	Emergency Planning and Community Right-To-Know Act
EPEAT	electronic product environmental assessment tool
EPP	environmentally preferable purchasing
ES	electronic stewardship
ES Plan	Electronics Stewardship Plan
ESA	Endangered Species Act
ESM	Environmental Statement Memoranda
ESPC	Energy Savings Performance Contract
EUL	enhanced use lease
FCI	Facility Condition Index
FEMP	Federal Energy Management Program

FRPP	federal resource property profile
FWS	U.S. Fish and Wildlife Service
FY	fiscal year
GHG	green house gas
GPP	Green Procurement Plan
GPRA	Government Performance Reporting Act
GSA	General Service Administration
gsf	gross square feet
IPR	Interim Progress Reviews
IRB	Investment Review Board
IT	information technology
ISO	International Standards Organization
mtCO <sub>2</sub> e	metric tons of carbon dioxide equivalent
NEPA	National Environmental Policy Act
NHPA	National Historic Preservation Act
NPS	National Park Service
O&M	operations and maintenance
OCIO	Office of Chief Information Officer
OCO	Office of Communication
OEPC	Office of Environmental Policy and Compliance
OFEE	Office of Federal Environmental Executive
OMB	Office of Management and Budget
PAM	Office of Property and Acquisition Management
PPA	power purchase agreement
PUE	power usage effectiveness
PV	photovoltaic
R2	responsible recycling practices for use in accredited certification programs
RCRA	Resource Conservation Recovery Act
Reclamation	Bureau of Reclamation
RIA	regulatory impact analysis
RMP	resource management plan
ROI	return on investment
SB	sustainable buildings
SB Plan	sustainable buildings plan
SB Tool	Sustainable Buildings Assessment and Compliance Tool
SNAP	Significant New Alternatives Policy
SO	Secretarial Order
SRPO	senior real property officer
SSO	senior sustainability officer
SSPP	Strategic Sustainability Performance Plan
TRI	toxic release inventory
USC	United States Code
USEC	utility energy service contract
USGS	U.S. Geological Survey

## Section 5: References / Links

---

Asset Management Plan <http://www.doi.gov/pam/DOIAssetPlanVer3.pdf>  
Compliance Waste Management  
[http://elips.doi.gov/app\\_DM/act\\_getfiles.cfm?relnum=3012](http://elips.doi.gov/app_DM/act_getfiles.cfm?relnum=3012)  
Comprehensive Waste Management  
[http://elips.doi.gov/app\\_DM/act\\_getfiles.cfm?relnum=2998](http://elips.doi.gov/app_DM/act_getfiles.cfm?relnum=2998)  
CPIC <http://www.doi.gov/pam/CPICguide62017.pdf>  
The Department Public Website <http://www.doi.gov/greening/>  
Electronics <http://www.doi.gov/greening/electronics>  
Five-Year Plan [http://www.doi.gov/pam/2012\\_Att\\_G\\_Final.pdf](http://www.doi.gov/pam/2012_Att_G_Final.pdf)  
FY2011 Budget in Brief <http://www.doi.gov/budget/2011/11Hilites/toc.html>  
Green Buildings <http://www.doi.gov/greening/buildings>  
Green Procurement <http://www.doi.gov/greening/procurement/GPP.pdf>  
Indian Energy and Economic Development <http://teeic.anl.gov>  
NIST Handbook [http://www.eer.energy.gov/femp/information/download\\_blcc.html](http://www.eer.energy.gov/femp/information/download_blcc.html)  
Pest Management [http://elips.doi.gov/app\\_DM/act\\_getfiles.cfm?relnum=3742](http://elips.doi.gov/app_DM/act_getfiles.cfm?relnum=3742)  
Recycling [http://elips.doi.gov/app\\_DM/act\\_getfiles.cfm?relnum=3197](http://elips.doi.gov/app_DM/act_getfiles.cfm?relnum=3197)  
Secretarial Orders [Http://elips.doi.gov/app\\_SOindex.cfm?fuseaction+chroList](Http://elips.doi.gov/app_SOindex.cfm?fuseaction+chroList)

## Appendix 1: Summary of Planning Tables for Goal Performance Measures

GOAL	Unit	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15	FY 16	FY 17	FY 18	FY 19	FY 20
<b>SCOPE 1 &amp; 2 - GHG REDUCTION TARGETS</b>												
<b>Buildings - Energy Reduction Goals</b> (BTU/SF reduced from FY03 base year)	%	15%	18%	21%	24%	27%	30%					Hold
<b>Buildings - Planned Energy Reduction</b> (BTU/SF reduced from FY03 base year)	%	22.5%	24%	25.5%	27%	28.5%	30%					
<b>Buildings - Renewable Electricity Goals</b> (Percent of electricity from renewable sources)	%	5%	5%	5%	7.50%	Hold	Hold					Hold
<b>Buildings - Planned Renewable Electricity Use</b> (Percent of electricity from renewable sources)	%	7.5%	8%	8.5%	9%							
<b>Fleet - Petroleum Use Reduction Targets</b> (Percent reduction from FY05 base year)	%	10%	12%	14%	16%	18%	20%	22%	24%	26%	28%	30%
<b>Fleet - Planned Petroleum Use Reduction</b> (Percent reduction from FY05 base year)	%	10%	12%	14%	16%	18%	20%	22%	24%	26%	28%	30%
<b>Fleet - Alternative Fuel Use in Fleet AFV Target</b> (Percent increase from FY05 base year)	%	61%	77%	95%	114%	136%	159%					Hold
<b>Fleet - Planned Alternative Fuel Use in Fleet AFV</b> (Percent increase from FY05 base year)	%	61%	77%	95%	114%	136%	159%					Hold
<b>Scope 1 &amp; 2 - GHG Reduction Targets</b> (Reduced from FY08 base year)	%	0	2%	4%	6%	8%	10%	12%	14%	16%	18%	20%
<b>SCOPE 3 GHG REDUCTION TARGET</b>												
<b>Overall Agency Scope 3 Reduction Target</b> (reduced from FY08 base year)	%	0	0.9%	1.80%	2.70%	3.60%	4.50%	5.40%	6.30%	7.20%	8.10%	9.0%
<b>Sub-Target for Federal Employee Travel</b>	%	0	0.64%	1.28%	1.92%	2.56%	3.20%	3.84%	4.48%	5.12%	5.76%	6.40%
<b>Sub-Target for Contracted Waste Disposal</b>	%	0	1.9%	3.8%	5.7%	7.6%	9.5%	11.4%	13.3%	15.2%	17.1%	19.0%
<b>Sub-Target for Transmission and Distribution Losses from Purchased Energy</b>	%	0	2.11%	4.22%	6.33%	8.44%	10.55%	12.66%	14.77%	16.88%	18.99%	21.1%

GOAL	Unit	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15	FY 16	FY 17	FY 18	FY 19	FY 20
<b>SUSTAINABLE HIGH PERFORMANCE BUILDINGS</b>												
<i>Owned Facilities Targets</i>	%	1.55%	3.27%	4.43%	5.07%	6.22%	14.98%					
<i>Leased Facilities Targets</i>	%	0%	0%	0%	0%	0%	0.02%					
<i>Total Facility Targets</i>	%	1.55%	3.27%	4.43%	5.07%	6.22%	15%					
<b>WATER USE EFFICIENCY &amp; MGMT - * Stretch Goals</b>												
<i>Potable Water Reduction Targets</i> (gal/SF reduced from FY07 base year)	%	6%	8%	10%	12%	14%	16%	18%	20%	22%	24%	26%
<i>Planned Potable Water Reduction</i> (gal/SF reduced from FY07 base year)	%	6%	8%	10%*	12%*	14%*	16%*	18%*	20%*	22%*	24%*	26%*
<i>Industrial, Landscaping, and Agricultural Water Reduction Targets</i> (gal reduced from FY10 base year)	%	0%	2%	4%	6%	8%	10%	12%	14%	16%	18%	20%
<i>Planned Industrial, Landscaping, and Agricultural Water Reduction</i> (gal reduced from FY10 base year)	%	0%	2%	4%*	6%*	8%*	10%*	12%*	14%*	16%*	18%*	20%*
<b>POLLUTION PREVENTION &amp; WASTE ELIMINATION</b>												
<i>Non-Hazardous Solid Waste Diversion Targets (non C&amp;D)</i>	%	38%	41%	44%	46%	48%	50%					
<i>C&amp;D Material &amp; Debris Diversion Targets</i>	%	25%	30%	35%	40%	45%	50%					
<b>SUSTAINABLE ACQUISITION</b>												
<i>New Contract Sustainability Target</i>	%	50%	75%	95%	Hold	Hold	Hold	Hold	Hold	Hold	Hold	Hold
<i>Energy Efficient Products</i> (Energy Star, FEMP-designated, and low standby power devices)	%	50%	75%	95%	Hold	Hold	Hold	Hold	Hold	Hold	Hold	Hold
<i>Water Efficient Products</i>	%	50%	75%	95%	Hold	Hold	Hold	Hold	Hold	Hold	Hold	Hold
<i>Biobased Products</i>	%	50%	75%	95%	Hold	Hold	Hold	Hold	Hold	Hold	Hold	Hold
<i>Recycled Content Products</i>	%	50%	75%	95%	Hold	Hold	Hold	Hold	Hold	Hold	Hold	Hold
<i>Environmentally Preferable Products/Services</i> (excluding EPEAT)	%	50%	75%	95%	Hold	Hold	Hold	Hold	Hold	Hold	Hold	Hold

GOAL	Unit	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15	FY 16	FY 17	FY 18	FY 19	FY 20
<b>SNAP/non-ozone depleting substances</b>	%	25%	35%	40%	50%	75%	95%	Hold	Hold	Hold	Hold	Hold
<b>New Contract Actions with Sustainable Requirements</b>	%	50%	75%	95%	Hold							
<b>Bureaus compliant with EO 13514</b>	%	60%	70%	80%	90%	Hold						
<b>ELECTRONIC STEWARDSHIP</b>												
<b>Desktops, Laptops, and Monitors</b> (Percent of device types covered by current Energy Star specifications that must be energy-star qualified)	%	95%	Hold	Hold	Hold							
<b>All Others, including Printing and Imaging Equipment</b> (Percent of device types covered by current Energy Star specifications that must be energy-star qualified)	%	UNK	90%	95%	Hold							
<b>Disposal Practices</b> (Percent of electronic assets covered by sound disposition practices)	%	90%	95%	100%	Hold							
<b>Desktops, Laptops, and Monitors</b> (Percent of agency, eligible electronic products with power management in use)	%	UNK	95%	100%	Hold							
<b>All Others, including Printing and Imaging Equipment</b> (Percent of agency, eligible electronic products with power management in use)	%	UNK	95%	100%	Hold							
<b>Energy-Environmentally Preferable Features</b> (Percent of agency, eligible electronic products with other energy-environmentally preferable features (duplex printing) actively implemented and in use)	%	UNK	95%	100%	Hold							
<b>EPEAT</b> (Percent of covered electronic product acquisitions that are EPEAT- registered)	%	95%	Hold	Hold	Hold							
<b>DATA CENTERS</b>												
<b>Cloud Activities</b> (Percent of cloud activity hosted in a data center)	%	TBD	TBD	TBD	TBD							

GOAL	Unit	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15	FY 16	FY 17	FY 18	FY 19	FY 20
<b>Metering and Monitoring</b> (Percent of agency data centers independently metered or advanced metered and monitored on a weekly basis)	%	1%	7%	TBD	TBD							
<b>Data Centers</b> (Percent reduction in the number of agency data centers)	%	3%	7%	TBD	TBD							
<b>CPU Utilization</b> (Percent of agency data centers operating with an average CPU utilization of 60-70%)	%	1%	4%	TBD	TBD							
<b>PUE Range</b> (Percent of agency data centers operating at a PUE range of 1.3 – 1.6)	%	1%	7%	TBD	TBD							
<b>Virtualization</b> (Percent of agency data center activity implemented via virtualization)	%	TBD	TBD	TBD	TBD							

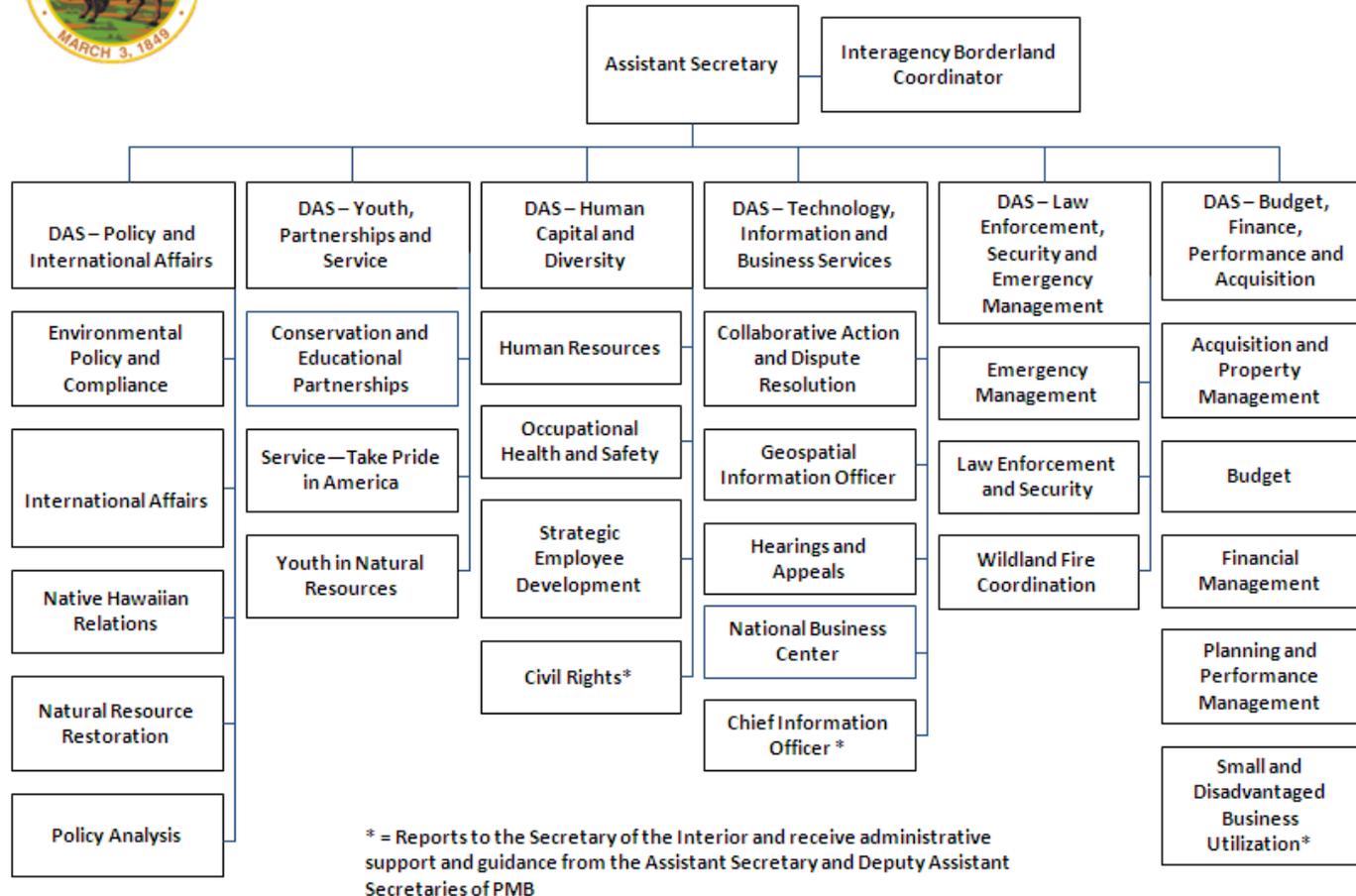
**Appendix 2: Agency Leads for Goal**

<b>Department of the Interior</b>	
<b>Goals</b>	<b>Agency Lead Description</b>
1 - 10	Assistant Secretary - Policy, Management and Budget serves as the Department's Senior Sustainability Officer responsible for meeting the goals of the Energy Policy Act of 2005 (EPAAct 2005), Energy Independence and Security Act of 2007 (EISA), EO 13423 – Strengthening Federal Environmental, Energy, and Transportation Management, and EO 13514 – Federal Leadership in Environmental, Energy, and Economic Performance.
1 - 10	Deputy Assistant Secretary – Budget, Finance, Performance and Acquisition serves as the Department's Senior Real Property Officer and is responsible for managing the portfolio of real property assets, oversight, issuing directives, and establishing management improvements for transportation and facility management.
6	Deputy Assistant Secretary – Water and Science serves under the Assistant Secretary for Water and Science, who oversees water and science policy and has responsibility for the U.S. Bureau of Reclamation and the United States Geological Survey, including responsibility for implementation of the WaterSMART Secretarial Order.
1 - 5, 7, 9	Deputy Assistant Secretary – Policy and International Affairs oversees the Office of Environmental Policy and Compliance which provides guidance and leadership for the Department's compliance with environmental statutes, executive orders, and regulations; coordinates the Department's recycling and pollution prevention programs; environmental management system; electronic stewardship; and sustainable buildings programs.
2, 9	Deputy Assistant Secretary for Technology and Business manages the Department's Office of the Chief Information Officer, the Geospatial Information Officer, the National Business Center, and the Open Government Initiative, which is aimed at building transparency, participation, and collaboration throughout the Department and the Federal Government.
1 - 9	Director, Office of Acquisition and Property Management is responsible for all policy aspects of Department-wide functions related to acquisitions and Federal assistance (grants and cooperative agreements) real, museum and personal property; space management; energy efficiency, water conservation, and renewable energy programs; motor vehicle fleet management; alternative fueled vehicles; capital asset planning, integrated charge card program, electronic commerce, and related automated systems.
1 - 5, 7, 9	Director, Office of Environmental Policy and Compliance is responsible for all policy aspects of Department-wide functions related to sustainable practices and reducing the Department's carbon footprint.
2, 3	Director, Office of Financial Management is responsible for all policy aspects of Department employee travel.
2, 9	Chief Information Officer provides leadership to the Department and its bureaus in all areas of information management and technology. Functional areas include: IT investment and portfolio management, enterprise architecture, cyber-security, information resources management and telecommunications services.

Appendix 2: Agency Leads for Goal cont.



**U.S. Department of the Interior**  
**Assistant Secretary – Policy, Management and Budget**



---