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## MEMORANDUM FROM THE OPM SENIOR SUSTAINABILITY OFFICER

As the largest employer in the United States (U.S.), the Federal government has a unique opportunity to influence our country's ecological and financial future. The U.S. Office of Personnel Management (OPM) is excited to play a part in the worldwide sustainability movement. OPM is tasked with recruiting, retaining, and honoring a world-class workforce for the American people. There is no better way to honor government employees and all Americans than to help ensure their communities are healthy. With this goal in mind, OPM will begin implementing our first Strategic Sustainability Performance Plan.

Several current initiatives will aid OPM's sustainability agenda. We are in the process of updating the Theodore Roosevelt Building's heating, ventilation, and air conditioning system and installing solar panels on the roof. OPM is also working with the Department of the Interior and the General Services Administration to begin local food programs such as a farmer's market and community gardens around the Washington, D.C. buildings. We are promoting flexible work arrangements that will lead to reduced building energy use and vehicle emissions. Furthermore, we are continuing to investigate sustainability opportunities and improvements at all of our facilities.

To tackle these environmental and energy initiatives, OPM established an internal Green Team comprised of both senior leadership and employee volunteers. The group's main objectives for the upcoming year are to raise awareness, provide guidance, create a broader recycling program and supply employees with information on various energy efficiency and recycling topics that can be used at both work and home. The group will use creative approaches to integrate sustainability efforts into daily operations.

In upcoming years, OPM will continue to develop its sustainability strategy to ensure the agency continually improves and builds upon our sustainability program. OPM is confident that changes made will have far reaching effects. As employees are educated and taught the best stewardship practices, they will be given the ability and power to influence exponential numbers of lives as they take these lessons back to their own homes and communities.

Conscious and concerted efforts to reduce the negative impact of daily operations are essential to the Federal government's standing in both the business and the public community. The environmental consequences of our actions are passed on through multiple sectors of society, and to ignore these externalities would be a disservice to those who have served in the past and those that hope to serve in the future. Achieving our greening initiatives will not only ensure that OPM remains in compliance with the major requirements laid out in Federal environmental provisions such as Executive Order (EO) 13514, EO 13423, the Energy Independence and Security Act (EISA) of 2007, and the Energy Policy Act (EPAct) of 2005, but also that the agency is a highly desired place of employment and a stewardship leader.

Environmental and financial sustainability are inherently linked. The healthier our environment, the more resources will be available for ourselves and future generations to live more prosperous, fulfilling and enjoyable lives. To best serve the American people, OPM will pursue positive environmental policies to its fullest capability.

Sincerely,

Tina B. McGuire  
Director, Facilities, Security, and Contracting  
Senior Sustainability Officer

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# SECTION 1: AGENCY POLICY & STRATEGY

## I. AGENCY SUSTAINABILITY POLICY STATEMENT

It is the vision of the Office of Personnel Management (OPM) that all business and operations will be conducted with the least environmental impact possible and that energy and resource efficiency will be agency priorities. Due to OPM's unique role in affecting the work habits of Federal employees, work in this area will be particularly geared toward increasing employee education in sustainability and leveraging flexible work environments to enhance environmental performance.

## II. SUSTAINABILITY AND THE AGENCY MISSION

The core mission of OPM is to recruit, retain, and honor a world-class workforce for the American people. OPM recognizes the connection between its mission principles and sustainability in at least three major areas.

First, OPM recognizes sustainability as an opportunity to make its operations more efficient and robust. For example, the energy generated and stored by rooftop solar generation at headquarters will allow the agency to continue operating in the case of an emergency power outage. In addition, by focusing on energy efficiency initiatives, OPM will be able to redirect money saved into supporting its core mission.

Second, sustainability initiatives create a positive physical work environment which serves to recruit and retain top talent. The quality of the work environment indicates the respect and appreciation the employer has for its workforce, striving to create physical and cultural space that fosters a healthy, comfortable environment. If OPM and the Federal government are to attract the leaders we need, our facilities and operations should be of the highest caliber and efficiency. The physical work space impacts productivity and job satisfaction, and OPM aims to communicate that the Federal workforce is ahead of the curve and constantly moving forward in these areas.

Finally, reducing the negative impact of daily operations is essential to the Federal government's standing in the business and the public community. The environmental consequences of our actions are passed on throughout society, and to ignore these externalities would be a disservice to those who have served in the past and those who hope to serve in the future. If OPM hopes to be the premier employer of the twenty-first century, we cannot simply follow the trend; we must lead it.

OPM occupies twenty-four GSA-owned or GSA-leased facilities, and OPM has been given the "Delegation of Authority" to manage three of these facilities. Of these three facilities, the Theodore Roosevelt Building is the largest consumer of energy, and OPM has identified it as the top energy reduction investment priority. However, OPM foresees two key technical sustainability challenges related to its building energy intensity goals. First, the Theodore Roosevelt Building (TRB) contains outdated heating, ventilation and air-conditioning systems. The HVAC system was installed in the mid-1960s, and it was designed for wide open office areas, not the current configuration of cubicles. Therefore, the system is hard to control, extremely inefficient, and costly to upgrade.

Second, OPM provides applicant testing in the Theodore Roosevelt Building for other Federal agencies that often occurs on weekends. OPM facilities personnel must operate the chiller plant and other HVAC systems outside normal building operating hours. These energy intensive devices are inefficient and costly to operate but must be run to maintain building comfort levels during testing.

OPM also faces non-technical challenges, such as coordinating sustainability goals internally, shifting agency culture to ‘think green’, and internal and external communication. The agency must start building a culture of sustainability within OPM. Integrating environmental responsibility into all areas of agency work will be a great challenge. There is currently no central office of environmental management, nor any position that focuses exclusively on agency sustainability. As a result, most of the planning and implementation will be done by a wide swath of employees with little to no background in this area. Employee education and communication will be critical for all of OPM’s efforts. This also means that defining roles and assigning responsibilities will be extremely complicated, since currently all those working on sustainability issues have competing work objectives.

### III. GREENHOUSE GAS REDUCTION GOAL

OPM is committed to reducing its Scope 1 and 2 greenhouse gas (GHG) emissions by 20% from FY 2008 levels by FY 2020. We believe such a reduction will be an ambitious, yet achievable task, and will complement the many smaller efforts the agency has made in the past ten years to become more energy efficient.

OPM also aims to reduce its Scope 3 GHG emissions. OPM will examine its emissions from transmission and distribution losses, contracted waste and employee commuting. OPM has the most influence over employee commuting. OPM has targeted a 5% reduction of Scope 3 emissions from the FY 2008 baseline by FY 2020.

### IV. PLAN IMPLEMENTATION

OPM recognizes the importance of the sustainability goals outlined in EO 13514, EO 13423, the Energy Independence and Security Act of 2007 (EISA), and the Energy Policy Act of 2005 (EPACT). OPM understands achieving these objectives requires effective delegation of tasks and efficient coordination of Green Team leadership. OPM has developed protocols to ensure that this agency’s sustainability plan incorporates all elements of these federal directives and that all goals are successfully implemented. Specifically, OPM is taking the following steps to build a culture of sustainability throughout OPM:

- a. **Internal Coordination and Communication** – The agency Senior Sustainability Officer will coordinate and delegate implementation of the Strategic Sustainability Performance Plan. Internal coordination will occur through the Green Team, whose members come from the Director’s Office, Communications, Congressional Relations, Chief Financial Office, Chief Information Office and Facilities, Security and Contracting. In future plans, OPM will create an organizational chart to show the members of the Green Team and their designated responsibilities.
- b. **Coordination and Dissemination of the Plan to the Field** – OPM is only responsible for a few field offices under Executive Order (EO) 13514 (a total of three buildings where OPM pays utility bills). Any agency-wide policies or changes in operation that will affect field offices will be disseminated via directives from OPM’s central office.

- c. **Leadership and Accountability** – The Senior Sustainability Officer will be responsible for reporting all progress to the Director and also for submitting plans and evaluations to the White House Council on Environmental Quality (CEQ) and the Office of Management and Budget (OMB). This new responsibility will be added to the Senior Sustainability Officer’s official portfolio, and they will have discretion to delegate duties to others within OPM. Currently, there is no full-time staff devoted to environmental initiatives. If OPM is to successfully carry out the requirements of EO 13514, three full-time positions will be needed, at a minimum, to support the current Facilities, Security, and Contracting staff. OPM will investigate how to best integrate such positions into the operations and work of the agency, without creating the impression that sustainability is a stand-alone initiative.
- d. **Agency Policy and Planning Integration** – The goals set out in the following plan will be circulated to senior staff so that they may integrate the relevant strategies into daily operation and plans for coming years. Additionally, the Senior Sustainability Officer will review future OPM Strategic Plans to ensure that they are consistent with the intentions and priorities of EO 13514.
- e. **Methods for Evaluation of Progress** – Facilities Management has secured the services of Utilities Management Corporation who will provide ongoing monitoring, diagnosing and the optimization of energy and water use, billing and operations at the OPM headquarters building. The Chief of Building Operations and the Theodore Roosevelt Building Building Manager will review all energy-related data to evaluate progress being made by agency.

OPM has not yet implemented an environmental management system (EMS) at the agency or at the facility level. There is an energy management system in place for Facilities Management with SIEMENS. However, efforts toward environmental stewardship have been made related to many of the goals outlined in this plan without the EMS in place. OPM will work on creating an EMS or a Compliance Management Plan agency-wide.

The agency plans to provide all OPM employees with a sustainability awareness training describing the background and purpose of this Strategic Sustainability Performance Plan. Employees will be provided with a mandatory web-based self-administered training on behavioral strategies to increase energy efficiency and reduce consumption.

OPM plans to integrate this Strategic Sustainability Performance Plan with other planning and reporting efforts across the agency. The table below illustrates opportunities for integrating sustainability requirements into existing planning documents and vice versa. This table is a guide for ensuring that sustainability programs are supported in the appropriate agency planning processes.

**Table A: Critical Planning Coordination**

Originating Report / Plan	Scope 1 & 2 Greenhouse Gas (GHG) Reduction	Scope 3 GHG Reduction	Develop and Maintain Agency Comprehensive GHG Inventory	High-Performance Sustainable Design / Green Buildings	Regional and Local Planning	Water Use Efficiency and Management	Pollution Prevention and Waste Elimination	Sustainable Acquisition	Electronic Stewardship and Data Centers	Agency Specific Innovation
<i>“Sample Plan”</i>	Yes	n/a	n/a	n/a	n/a	n/a	n/a	n/a	Yes	No
GPRA Strategic Plan	No	No	No	No	No	No	No	No	No	No
Agency Capital Plan	No	No	No	No	No	No	No	No	No	No

A-11 300s	No	No	No	No	No	No	No	No	No	No
Annual Energy Data Report	No	No	No	No	No	No	No	No	No	No
EISA Section 432 Facility Evaluations/Project Reporting	No	No	No	No	No	No	No	No	No	No
Budget	No	No	No	No	No	No	No	No	No	No
Asset Management Plan / 3 Year Timeline	No	No	No	No	No	No	No	No	No	No
Circular A-11 Exhibit 53s	No	No	No	No	No	No	No	No	No	No
OMB Scorecards	Yes	No	No	No	Yes	Yes	Yes	Yes	Yes	No
DOE's Annual Federal Fleet Report to Congress and the President <sup>1</sup>	Yes	No	Yes	N/A	Yes	N/A	N/A	Yes	N/A	N/A
Data Center Consolidation Plan	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Environmental Management System <sup>2</sup>	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Other (reports, policies, plans, etc.) <sup>3</sup>	No	No	No	No	No	No	No	No	No	No

## V. EVALUATING RETURN ON INVESTMENT

### ECONOMIC LIFECYCLE COST/RETURN ON INVESTMENT

Assessing the return on investment is essential for the integrity of any government-funded project. If the benefits of a given action are not significantly more than the costs incurred, it may not be a worthy use of funds. Using money and other resources wisely and for the most benefit to the American public is the guiding principle of Federal government. However, OPM also recognizes that the traditional definition of a cost or benefit in monetary terms may fail to capture the more abstract value of alternatives. Therefore, OPM is committed to defining ROI in the economic, social, environmental, and mission-oriented terms as described below.

### SOCIAL COSTS AND BENEFITS

Government actions often have multiplied effects on social institutions that are not accounted for in traditional financial cost-benefit analyses. Since these effects cannot be expressed in monetary terms, OPM's goal is to use quantitative terms whenever possible (e.g., number of jobs saved or internships created). When quantitative terms are inappropriate (e.g., historical/cultural significance, aesthetic value), OPM will fully describe the context of the cost or benefit, the audience it affects, and any mediating steps that could be taken.

### ENVIRONMENTAL COSTS AND BENEFITS

Similarly, environmental costs and benefits may or may not be quantifiable, yet they must be incorporated into any comprehensive return on investment analysis. Environmental costs and benefits are difficult to estimate because many effects are not produced immediately. OPM will take a long-term perspective when weighing the relative costs and benefits of different courses so that delayed benefits are not overly discounted when compared to immediate benefits.

Before such standards can take effect, however, OPM will need to train and educate employees about the principles behind social and environmental cost-benefit accounting. Simply issuing a policy requiring employees to use this type of analysis without giving them the knowledge and tools to do so will not further this goal. OPM will plan and hold training sessions during the first year of implementation of EO 13514 specifically addressing methods for meeting this standard. After the first round of training, this



information will be integrated with standard employee orientations so that all future OPM employees will receive the same type of information.

In partnership with the General Services Administration (GSA), OPM has already incorporated return on investment calculations, in terms of energy efficiency, into its capital project assessments. The headquarters renovations funded by the American Recovery and Reinvestment Act (ARRA) were designed based on the estimated annual energy savings per dollar of construction cost. OPM was able to choose the renovations that would yield the largest energy savings per investment, and thus maximize its future financial savings.

### **MISSION-SPECIFIC COSTS AND BENEFITS**

The OPM mission is to recruit, retain, and honor a world-class workforce for the American people. OPM is integrating the goals of EO 13514 with existing goals to ensure that the agency is in position to provide the best possible workforce and have a positive effect on the environment. The agency believes integrating sustainability into the OPM mission will ensure the best possible talent is retained and current personnel will see the agency is investing in their future prosperity.

### **OPERATIONS AND MAINTENANCE AND DEFERRED INVESTMENTS**

OPM maintains equipment on a regular schedule to ensure all facilities are running efficiently and to stay ahead of equipment failure. OPM will integrate technologies and practices that help reduce the agency's deferred maintenance costs in delegated buildings. OPM will coordinate with GSA in the agency's leased spaces to ensure that all facility management departments are taking necessary steps to keep mechanical systems in efficient working order.

### **CLIMATE CHANGE RISK AND VULNERABILITY**

OPM has little climate change risk and vulnerabilities. The three delegated OPM facilities are being fitted with double paned windows that will help with heating and cooling costs and reduce energy use. Even with changing climate, OPM facilities anticipate energy use will not increase because of the equipment upgrades proposed in this plan. Facilities Management is looking into other ways to mitigate climate change impacts on OPM.

# SECTION 2: PERFORMANCE REVIEW & ANNUAL UPDATE

## I. SUMMARY OF ACCOMPLISHMENTS

OPM has already taken the following steps to improve the energy efficiency and sustainability of its facilities, particularly headquarters – the Theodore Roosevelt Building – in Washington, D.C.:

- In partnership with GSA, replaced the chiller plant in FY 2001.
- Performed a total retrofit of lighting in FY 2001.
- Replaced perimeter heating system in FY 2007.
- Installed rain sensors on landscaping irrigation system.
- Reduced time span on landscaping irrigation system to reduce water flow.
- Replaced and installed motion detectors in all common areas and restrooms in FY 2009/10.

Additional projects underway at Theodore Roosevelt Building include:

- Developing an employee energy awareness program.
- Instituting a program to utilize motion sensing power strips.

ARRA projects scheduled to start at Theodore Roosevelt Building in late FY 2010 and early FY 2011 include:

- Installing an upgraded energy management system to include new Variable Air Volume (VAV) boxes, air handler fans, variable speed motors, chill water coils and dampeners on all floors.
- Installing a second inner pane of glass to all windows.
- Replacing all existing urinals and commodes with low volume fixtures.
- Replacing a major portion of existing lighting fixtures and approximately 275,000 sq. ft. of metal pan ceiling to reduce the actual number of fixtures with energy efficient units.
- Installing a photovoltaic panel system on roof.
- Installing new elevator controllers on all passenger elevators.
- Installing the backbone of a lighting control system.
- Installing light emitting diode (LED) lighting throughout the garage.
- Upgrading the Building Automation Systems/ Energy Management Control System (EMCS).

## II. GOAL PERFORMANCE REVIEW

### GOAL 1: SCOPE 1 & 2 GREENHOUSE GAS REDUCTION

#### AUTHORITY

EO 13514, *Federal Leadership in Environmental, Energy, and Economic Performance* (2009)  
EO 13423, *Strengthening Federal Environmental, Energy, and Transportation Management* (2007)  
Energy Independence and Security Act of 2007 (EISA)  
Energy Policy Act of 2005 (EPACT)

## **A. GOAL DESCRIPTION**

OPM has committed to a 20% reduction in Scope 1 & 2 GHG emissions from FY 2008 levels by FY 2020. We anticipate a significant portion of these reductions to come from renovations on the Theodore Roosevelt Building (OPM headquarters) planned to begin in FY 2011 and continue through FY 2013. Various training sessions and workgroups will provide the needed education for staff to comply with the various EOs. OPM will also assess our fleet for opportunities to reduce gas consumption and increase fuel economy.

### **Scope 1 & 2 Greenhouse Gas Reduction Sub-Goals**

- A. Reduce energy intensity by 3% per year through FY 2015, or 30% total, relative to FY 2003 baseline.
- B. Increase the use of electricity from renewables by 5% annually between FY 2010 and FY 2012, then 7.5% annually beginning in FY 2013.
- C. Reduce petroleum use by 2% annually from FY 2006 through FY 2020, or 30% total, relative to FY 2005 baseline.<sup>1</sup>
- D. Increase the use of alternative fuels by 10% compounded annually through FY 2015 compared to FY 2005 baseline.
- E. “Right-size” our fleet, employing the most fuel-efficient vehicle for the required task and having the appropriate number of vehicles relative to need.
- F. Employ efficiency strategies such as low rolling resistant tires, synthetic oil, and other technologies.
- G. Reduce vehicle miles traveled through such methods as trip consolidation practices, increased use of videoconferencing and web conferencing, and the use of mass transportation/agency shuttles.
- H. Increase overall fleet fuel economy through acquisition of higher fuel economy vehicles (e.g., smaller sized vehicles, hybrid-electric vehicles, and other advanced technology vehicles).

## **B. AGENCY LEAD FOR GOAL**

The agency lead for the strategy and oversight of this goal will be the Senior Sustainability Officer, while implementation will be through the Security, Facilities and Contracting team.

## **C. IMPLEMENTATION METHODS**

OPM will reduce Scope 1 and Scope 2 GHG emissions by focusing on reducing facility energy intensity and reducing vehicle fuel consumption. However, OPM does not own any facilities or vehicles; all facilities and vehicles are leased or owned by GSA. Therefore, any physical alterations to facilities will need to be approved by GSA, and OPM will focus on behavioral change to meet GHG emissions reduction goals.

The agency anticipates a significant portion of facility energy intensity reductions will come from renovations on the Theodore Roosevelt Building headquarters planned for 2010. (Please see section on High Performance Green Buildings for more details.)

In addition to renovating the Theodore Roosevelt Building, OPM will:

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<sup>1</sup> Please see the section below detailing actual timeline for this goal.

- Assess current energy usage and opportunities to reduce energy intensity by conducting an energy audit on facilities to identify inefficiencies.
- Monitor and track utility bills.
- Retrofit all facilities with more energy efficient fixtures and bulbs.
- Ensure all appliances are energy efficient and that energy efficiency options are enabled.
- Institute new policies and/or best practices that improve energy efficiency (set ambient temperatures, turn lights off, turn electronics off, etc.).
- Develop a training and communications program to educate employees about energy efficient behaviors.
- Explore opportunities to switch to energy from renewable sources.

OPM also plans to assess the vehicle fleet for opportunities to reduce fuel consumption and increase fuel economy. Where feasible, OPM will:

- Increase the number of hybrid vehicles in its fleet.
- “Right-size” its fleet, employing the most fuel-efficient vehicle for the required task and having the appropriate number of vehicles relative to need.
- Employ efficiency strategies such as low rolling resistant tires, synthetic oil, and other technologies.
- Reduce vehicle miles traveled through such methods as trip consolidation practices, increased use of videoconferencing and web conferencing, and the use of mass transportation/agency shuttles.

OPM has identified training and awareness opportunities that integrate with existing programs. For example, OPM plans to include eco-driving tips with its current vehicle safety training. Other educational materials, such as posted signs to remind employees to turn lights and appliances off, will be developed as needed. Records of all training sessions related to the Strategic Sustainability Performance Plan goals and sub-goals will be maintained and will describe the date of training, attendees, trainer, and topics covered.

The Scope 1 and 2 goals directly relate to the following goals developed in this plan:

- Goal 4 (High Performance Green Buildings) - renovated and retrofitted buildings will improve energy efficiency and a switch to renewables will reduce Scope 1 and 2 emissions.
- Goal 6 (Water Use) - using less water means heating less water, less energy expended to heat means reduction in GHGs.
- Goal 8 (Sustainable Acquisition) - purchasing more energy efficient appliances and electronics reduces energy use and therefore GHGs. Also, purchasing more fuel efficient vehicles and videoconferencing equipment means reduced fossil fuel use from vehicles.
- Goal 9 (Electronics Stewardship and Data Centers) - more efficient electronics reduces energy use and thus GHGs.

## **BUILDINGS: REDUCE ENERGY INTENSITY & INCREASE ELECTRICITY FROM RENEWABLES**

Reducing energy intensity means reducing the amount of energy consumed per square foot. In order to prioritize actions and focus resources at the outset, OPM with assistance from GSA, will conduct energy audits of facilities. Since GSA owns or leases all OPM facilities, any facility upgrades and retrofits will be conducted in conjunction with GSA and building owners, where appropriate. Energy intensity reductions will come largely from behavioral changes, such as switching off lights and appliances, and from replacing appliances and electronics with more efficient models. Renewable energy sources include wind, solar, hydropower, geothermal, and biomass. Specific actions are listed in Table 1-1.

**Table 1-1: Buildings: Reduce Energy Intensity & Increase Renewables**

Concept	Actions
Assess current usage and opportunities	Conduct an energy audit.
	Monitor and track utility bills.
	Identify most energy intensive facilities and develop energy profile of each.
Renovate and retrofit	Renovate Theodore Roosevelt Building.
	Replace Theodore Roosevelt Building HVAC system.
	Potential energy audit finding: Upgrade lighting fixtures.
	Potential energy audit finding: Seal building envelope.
	Potential energy audit finding: Insulate pipes.
	Potential audit finding: Install solar panels/wind turbines/geothermal.
	Work with electricity provider to explore renewable source options.
Upgrade appliances and electronics	Replace non-EPEAT electronics.
	Replace non-Energy Star appliances.
	Instruct employees to enable Energy Star features (e.g., develop instructions, deliver to employees).
Train employees	Conduct a survey to assess employees' current understanding of and attitude towards energy efficiency and GHG emissions reductions .
	Develop a training and communications program about energy efficiency and GHG reduction.

**FLEET: REDUCE PETROLEUM USE AND OPTIMIZE FLEET**

OPM acknowledges a number of challenges it faces while trying to achieve the petroleum reduction goal of 2% per year relative to FY 2005 baseline. OPM's vehicles are used primarily by field agents who conduct in-person field visits across the U.S. to interview candidates seeking employment with the Federal government. These field agents ensure all employment candidates meet the security, qualification, and integrity requirements to become employed by the Federal government. Due to the expansion of field agent responsibilities, OPM's vehicle fleet increased from 49 vehicles in FY 2004 to 1,585 vehicles in FY 2009 (a 3,135% increase). As a result, OPM's petroleum fuel use has increased by 82% for FY 2009 relative to FY 2005. In addition, OPM is currently planning to hire more than 100 new field agents over the next year to support Federal hiring initiatives, and these additions will add more vehicles (and more petroleum consumption) to the OPM fleet. OPM is currently exploring options to reduce petroleum consumption and to define a realistic and achievable reduction goal. For example, as one initiative, OPM replaces all end-of-life vehicles almost exclusively with hybrid gasoline-electric vehicles. However, given that OPM's current petroleum use is 82% higher than FY 2005, the agency is still working to define a realistic path toward a 30% reduction by FY 2020 relative to a FY 2005 baseline.

**Table 1-2: Fleet: Reduce Petroleum Use & Optimize Fleet**

Concept	Actions
Assess current vehicle fleet and agency driving needs	Conduct a comprehensive survey.
Provide alternatives to driving	Assist employees with trip consolidation and carpooling opportunities.
	Provide incentives for using public transportation rather than OPM fleet vehicles during work-related trips.

	Increase use of video and web conferencing.
“Right-size” the fleet	Identify the most fuel-efficient vehicles and designate these priority vehicles.
	Inform employees of vehicle prioritization system.
Increase use of alternative fuels	Identify and acquire hybrid-electric vehicles.
	Identify and acquire alternative fuel vehicles (where alternative fueling stations are available).
	Develop a training program on eco-driving tips to include with vehicle safety training.
Drive more efficiently	Develop and administer training on eco-driving techniques.

#### D. POSITIONS

Please refer back to Section 1 Part IV for a discussion of OPM’s staffing needs.

#### E. PLANNING TABLE

Table 1-3 presents Scope 1 and 2 targets by annual percent reduction and estimated financial resources.

**Table 1-3: Scope 1 & 2 Targets Planning Table**

	TARGETS AND FINANCIAL RESOURCES	Basis*	Unit	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15	FY 16	....	FY 20
Buildings	Energy Intensity Reduction Goals (BTU/SF reduced from FY03 base year)		%	15	18	21	24	27	30	hold	....	hold
	Planned Energy Intensity Reduction (BTU/SF reduced from FY03 base year)		%	0	0	0	10	14	15	16	....	20
	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)		%	5	5	5	8	hold	hold	hold	hold	hold
Fleet	Petroleum Use Reduction Targets (Percent reduction from FY05 base year) <sup>4</sup>		%	10	12	14	16	18	20	22	....	30
	Planned Petroleum Use Reduction (Percent reduction from FY05 base year) <sup>2</sup>		%	TBD <sup>5</sup>	TBD	TBD	TBD	TBD	TBD	TBD	---	TBD

<sup>2</sup> Please see narrative under “Reduce Petroleum Use and Optimize Fleet” for explanation of TBD status.

Alternative Fuel Use in Fleet AFV Target (Percent increase from FY05 base year) <sup>6</sup>		%	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	hold	---	hold
Other, as defined by agency		n/a									
Scope 1 & 2 - Reduction Target (reduced from FY08 base year) <sup>7</sup>		%	0	0	0	0	14	14	16	18	20

## F. AGENCY STATUS

OPM completed its first GHG emissions inventory in FY 2010 and will be continuing to inventory the agency's emissions each year. This is a new and ongoing project for the agency. By measuring the emissions and energy use of OPM, the agency will be able to find inefficiencies and make investments to reduce the agency's energy costs in the future.

OPM will also improve data collection and accuracy. Facilities Management has secured the services of Utilities Management Corporation who will provide ongoing monitoring, diagnosing and the optimization of energy and water use, billing and operations at the Theodore Roosevelt Building. The Chief of Building Operations and the Building Manager will also review all energy related data to evaluate progress being made by agency.

## GOAL 2: SCOPE 3 GREENHOUSE GAS REDUCTION

### AUTHORITY

EO 13514, EO 13423, EISA, EPACT

### A. GOAL DESCRIPTION

OPM aims to reduce its Scope 3 GHG emissions from an FY 2008 baseline by FY 2020. OPM is working on quantifying its Scope 3 emissions at the same time as this plan is being developed. In future plans, OPM will quantify the sub-goals below with percentage targets.

#### Scope 3 Greenhouse Gas Reduction Sub-Goals\*

- A. Reduce miles traveled by air annually.
- B. Attend annual meetings and conferences by video or teleconference rather than in person.
- C. Inform all OPM employees about Smart Benefits and the biking subsidy.
- D. Increase biking and walking annually relative to FY 2010 baseline.
- E. Ensure employees have the ability to work from home.
- F. Increase ride-sharing annually relative to FY 2010 baseline.
- G. Reduce amount of non-hazardous solid waste generated and disposed of at landfills.
- H. Begin tracking emissions from wastewater treatment.
- I. Begin tracking emissions from purchased energy transmission and distribution losses.

\*Note: These sub-goals will be quantified in the upcoming year(s).

### B. AGENCY LEAD FOR GOAL

The agency lead for the strategy and oversight of this goal will be the Senior Sustainability Officer, while implementation will be through the Security, Facilities and Contracting team.

### C. IMPLEMENTATION METHODS

Since quantification of Scope 3 emissions currently does not exist, completion of a comprehensive GHG inventory will help inform how best to approach GHG reductions. However, OPM will aim to reduce Scope 3 GHG emissions by focusing primarily on employee travel and waste disposed of in landfills. OPM will also take steps to improve data tracking for all scope 3 emissions, including wastewater treatment and emissions from transmission and distribution of purchased energy.

All OPM employees will be provided with an awareness training describing the background and purpose of the Strategic Sustainability Performance Plan, including an overview of this goal. Employees will be provided with awareness and/or training on strategies to reduce scope 3 emissions. Where possible, awareness and/or training on Scope 3 reduction strategies will be included in existing training sessions. For example, OPM will add a new section to employee orientation on the details of Smart Benefits and the biking subsidy. The agency will also create a ride-sharing board on the internal website. OPM employees responsible for tracking data will receive training on how to do so. Records of all training sessions related to the Strategic Sustainability Performance Plan goals and sub-goals will be maintained and will describe the date of training, attendees, trainer, and topics covered.

There may be some crossover with Scope 1 & 2 GHG emissions, specifically between sub-goals related to travel. Completing the GHG inventory will inform progress towards meeting Scope 1, 2 and 3 goals, as



well as data availability, accuracy and collection methods. Reducing waste at the source (i.e., source reduction) translates into reduced waste disposed of in landfills and reduced GHGs.

## TRAVEL: REDUCE MILES TRAVELED

Primary reductions in Scope 3 emissions will come from employee business travel and commuting. Business travel includes travel by air, rail, bus, and personal vehicles (including rental cars) to meetings and conferences. Emissions related to employee commuting can be reduced through telework programs and promotion of alternative forms of transport such as biking, walking and public transport. Specific actions are listed in Table 2-1.

**Table 2-1: Travel: Reduce Miles Traveled**

Concept	Actions
Assess current travel preferences and behavior	Develop a comprehensive survey to understand current travel needs and preferences related to conferences and meetings, employee commuting and teleworking.
Reduce miles traveled to conferences and meetings	Develop internal policies to guide decision-making related to air travel to conferences and meetings.
	Develop guidance to help employees decide between attending conferences and meetings in person or via videoconference.
	Include this guidance and awareness about travel reduction goals in annual training
	Develop a system to record avoided travel across the agency.
Reduce employee commuting	Develop and administer an awareness program on the Smart Benefits and the biking subsidy. Can be administered through new employee orientation.
	Develop a system to track employee commuting by public transportation, car, bike and foot.
	Develop a system to track how often employees work from home.
	Develop a ride-sharing board on the internal website.
	Assist employees with trip consolidation and carpooling opportunities.
	Provide incentives for using public transportation.

## LANDFILL WASTE

This sub-goal relates to actions in Goal 7.

## DATA TRACKING

Over the next year, OPM will develop a strategy to track and analyze Scope 3 data for the agency.

**Table 2-2: Improve Scope 3 Data Tracking**

Concept	Actions
Data tracking	Begin tracking emissions from wastewater treatment.
	Begin tracking emissions from purchased energy transmission and distribution losses.

## D. POSITIONS

Please refer back to Section 1 Part IV for a discussion of OPM's staffing needs.

## E. PLANNING TABLE

Table 2-3 presents Scope 3 targets by annual percent reduction and estimated financial resources.

**Table 2-3: Scope 3 Targets Planning Table**

TARGETS AND FINANCIAL RESOURCES	Units <sup>8</sup>	FY 10	FY 11	FY 12	FY 13	FY 14	....	FY 20
Overall Agency Scope 3 Reduction Target (reduced from FY08 base year) <sup>9</sup>	%	2	2	2	3	3	...	5
Sub-Target for Federal Employee Travel	%	1	2	2	3	3	....	5
Sub-Target for Contracted Waste Disposal	%	2	2	2	2	3	....	5
Sub-Target for Transmission and Distribution Losses from Purchased Energy	%	0	0	2	2	3	....	5
Other, as defined by agency	%	TBD	TBD	TBD	TBD	TBD	....	TBD

## F. AGENCY STATUS

As the personnel management agency for the Federal government, OPM is in a unique position to influence employee travel guidance. OPM is initiating several strategies on this front. First, due to the high priority of work flexibility, more work can be done via telework and teleconferences and webinars. Second, OPM will increase marketing of Smart Benefits and the bike subsidy for all Federal employees. OPM will also create a ride-share board on the internal website.

OPM will also improve data collection and accuracy. Facilities Management has secured the services of Utilities Management Corporation who will provide ongoing monitoring, diagnosing and the optimization of energy and water use, billing and operations at the Theodore Roosevelt Building.

## GOAL 3: DEVELOP & MAINTAIN AGENCY COMPREHENSIVE GREENHOUSE GAS INVENTORY

### AUTHORITY

EO 13514, EO 13423

### A. GOAL DESCRIPTION

OPM is in the process of gathering quantitative emissions data from GHG generating sources at all locations which OPM has been given the “Delegation of Authority” to operate, including the responsibility for the payment of all utility bills. In addition, OPM will compile data on government-leased vehicles, commuting patterns, and agency transportation practices. This data will be maintained in a comprehensive database. OPM will use FY 2008 as the baseline to assess progress in meeting GHG reduction goals through FY 2020. Facilities Management will track the agency’s GHG inventory and report progress to the Senior Sustainability Officer. As previously mentioned (Goal 1), OPM is requesting additional staffing to comply with all existing EOs.

#### Greenhouse Gas Inventory Sub-Goals

- A. Define organizational and operational boundaries.
- B. Identify data sources.
- C. Collect data.
- D. Document procedures.
- E. Report emissions.
- F. Develop emissions reduction strategy.

### B. AGENCY LEAD FOR GOAL

The agency lead for the strategy and oversight of this goal will be the Senior Sustainability Officer, while implementation will be through the Security, Facilities and Contracting team.

### C. IMPLEMENTATION METHODS

OPM will develop a GHG inventory according to the procedures described in the Federal Energy Management Program’s (FEMP) *Federal Greenhouse Gas Accounting and Reporting Guidance* (Guidance) and the World Resource Institute’s *Public Sector GHG Accounting and Reporting Standard* (Public Sector Standard, or PSS). The inventory will support the principles of GHG accounting: relevance, completeness, consistency, transparency, and accuracy.

Inventory development and management will be overseen by a designated employee responsible for ensuring procedures meet EO GHG requirements.

To the extent practicable, the inventory will capture GHG emissions related to all agency activities over which the agency has operational control, and, in some instances, financial control. OPM will include all facilities for which OPM has been given the “Delegation of Authority” to operate, including responsibility for payment of all utility bills.

All OPM facilities and vehicles are leased or owned by the GSA. Emissions related to leased spaces and vehicles will be included in the organizational boundary if the agency directly pays for energy or fuel purchases.

The baseline FY 2008 inventory and FY 2010 inventory will include Scope 1, Scope 2, and select Scope 3 emissions.

- a) Scope 1 emissions include direct emissions from:
  - Generation of heat, electricity, cooling or steam.
  - Mobile sources.
  - Fugitive emissions.
  - Process emissions.
- b) Scope 2 emissions include indirect emissions associated with:
  - Consumption of purchased electricity (including for electric vehicles), steam, heating or cooling.
- c) Scope 3 emissions include all other indirect emissions not included in scope 2. The agency shall report the following scope 3 emissions:
  - Employee business air travel.
  - Contracted solid waste disposal.
  - Transmission and distribution losses related to purchased electricity.

Development of the GHG inventory will proceed as follows:

1. Define organizational and operational boundaries.
2. Identify data sources and collect data.
3. Input data into an approved calculation tool.
4. Document all procedures.
5. Report emissions through the DOE FEMP GHG Reporting Portal.
6. Develop an emissions reduction strategy.

OPM will complete the inventory using an approved calculation tool, such as GSA's Carbon Footprint Tool. OPM will develop an inventory management plan that will detail all methods and assumptions to ensure consistency and transparency from year to year. OPM will ensure continual improvement in data collection and emissions estimation methods and consider the addition of new Scope 3 sources as data become available.

All OPM employees will be provided with an awareness training describing the background and purpose of the Strategic Sustainability Performance Plan, including an overview of this goal.

#### **D. POSITIONS**

Please refer back to Section 1 Part IV for a discussion of OPM's staffing needs.

#### **E. PLANNING TABLE**

Planning table not required for this Goal.

#### **F. AGENCY STATUS**

OPM is in the process of gathering all GHG generating sources into a comprehensive database to use as a baseline for all future reduction efforts.

## GOAL 4: HIGH-PERFORMANCE SUSTAINABLE DESIGN / GREEN BUILDINGS<sup>10</sup>

### AUTHORITY

EO 13514, EO 13423, Federal Leadership in High Performance and Sustainable Buildings Memorandum of Understanding

### A. GOAL DESCRIPTION

OPM currently occupies twenty-four GSA-owned buildings throughout the country. GSA has delegated operation of three of these Federal facilities to OPM. OPM commits to meet all requirements under EO 13514 that pertain to high-performance sustainable design and green buildings in OPM-delegated buildings. OPM further commits to coordinate with GSA to meet EO 13514 requirements in all GSA facilities within which they have leased space. OPM's goals are outlined below:

#### High-Performance Green Building Targets

- A. Beginning in FY 2020, all new Federal buildings are designed to achieve zero-net energy by FY 2030.
- B. 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)."
- C. At least 15% of agency's existing buildings and building leases meet Guiding Principles by FY 2015 [5,000 gross square foot threshold for existing buildings and building leases].
- D. Demonstrate annual progress toward 100% conformance with Guiding Principles for entire building inventory.
- E. Demonstrate use of cost-effective, innovative building strategies to minimize energy, water and materials consumption.
- F. Manage existing building systems to reduce energy, water and materials consumption in a manner that achieves a net reduction in agency deferred maintenance costs.
- G. 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.
- H. Ensure use of best practices and technology in rehabilitation of historic Federal properties.

### B. AGENCY LEAD FOR GOAL

The agency lead for the strategy and oversight of this goal will be the Senior Sustainability Officer, while implementation will be through the Security, Facilities and Contracting team.

### C. IMPLEMENTATION METHODS

OPM does not own any buildings, and it does not plan to alter its current practice of having GSA acquire and assign OPM. However, OPM will work with GSA to ensure that this goal is achieved for any existing buildings delegated to OPM and for any new Federal building that OPM might occupy.

In February 2006, OPM was a signatory to the *Federal Leadership in High Performance and Sustainable Buildings Memorandum of Understanding* to promote and encourage common strategies for planning, acquiring, siting, designing, building, operating, and maintaining high performance and sustainable buildings.

At present, OPM has fourteen green building and sustainable design projects slated for implementation, demonstrating OPM's commitment to the High Performance Sustainable Design objectives of Goal 4. GSA has dedicated a portion of the ARRA funds allocated to their agency to sponsor OPM in fulfillment of these projects. The combined impact of these projects will help OPM reduce agency-wide GHG emissions, and provide cost-effective solutions to minimize energy, water, and material consumption within the Theodore Roosevelt Building.

#### **BEGINNING IN FY 2020, ALL NEW FEDERAL BUILDINGS ARE DESIGNED TO ACHIEVE ZERO-NET ENERGY BY FY 2030**

OPM will work with GSA to ensure that this goal is achieved for any new Federal building that OPM might occupy. OPM will also train all members of its Space Management staff to implement a design/build process that will ensure all spaces designed in FY 2020 and beyond are net-zero energy.

#### **ALL NEW CONSTRUCTION, MAJOR RENOVATION OR REPAIR AND ALTERATION OF FEDERAL BUILDINGS COMPLIES WITH GUIDING PRINCIPLES**

Typically, all major renovations, repairs and alterations that are performed in any OPM-occupied Federal building are designed and completed in coordination with GSA. Also, all space that OPM occupies is acquired and assigned to OPM by GSA. OPM will work with GSA to ensure compliance with the Guiding Principles.

#### **AT LEAST 15% OF AGENCY'S EXISTING BUILDINGS AND BUILDING LEASES MEET GUIDING PRINCIPLES BY FY 2015**

OPM's schedule for meeting this sub-goal is dependent on GSA's ability to procure funding for improvements in all OPM-leased space. OPM will work closely with GSA in delegated buildings, like the Theodore Roosevelt Building, to ensure all measurable steps are taken to achieve the objectives of this sub-goal. This schedule is illustrated in the table below. This schedule also demonstrates annual progress toward 100% conformance with Guiding Principles for OPM's entire assigned spaces.

**Table 4-1: Meeting Guiding Principles Actions**

<b>Concept</b>	<b>Actions</b>
Project design	Develop a catalog of cost-effective building improvement projects that could be implemented to ensure OPM delegated space meets Guiding Principles by 2015.
Strategic planning	Work closely with GSA to prioritize renovation options and identify potential sources of funding for project implementation.

#### **DEMONSTRATE ANNUAL PROGRESS TOWARD 100% CONFORMANCE WITH GUIDING PRINCIPLES FOR ENTIRE BUILDING INVENTORY**

OPM has begun project planning efforts to incorporate the Guiding Principles into OPM/GSA-coordinated renovations of the Theodore Roosevelt Building. The High-Performance Sustainable Design projects that OPM has slated to begin in FY 2011 can be found in Table 4-2. OPM will continue to incorporate the Guiding Principles in all future requests for space made to GSA and will work closely with GSA to achieve this objective.

**Table 4-2: Projects Developed to Conform with Guiding Principles**

Concept	Actions
Planned GSA-sponsored ARRA projects	Modernize below grade HVAC systems.
	Program temperature reset schedule into the control sequence for all AC units.
	Reset chilled water schedule into the control sequence for all air conditioning units.
	Install CO <sub>2</sub> sensors.
	Install variable exhaust system to operate based on restroom occupancy.
	Reduce lighting power density.
	Install occupancy sensors.
	Replace garage fixtures with LED-type fixtures.
	Install lighting control system backbone.
	Install adaptive controllers on all elevators.
	Upgrade toilets and urinals.
	Improve windows.
	Reduce infiltration through lobby doors.
	Install photovoltaic panel for lighting power.

### **DEMONSTRATE USE OF COST-EFFECTIVE, INNOVATIVE BUILDING STRATEGIES TO MINIMIZE ENERGY, WATER AND MATERIALS CONSUMPTION**

OPM will continue to coordinate with GSA to identify opportunities for minimizing energy, water and materials consumption. This is particularly the case at the Theodore Roosevelt Building where OPM has implemented energy and water conservation techniques, and where OPM and GSA have begun the design phase of ARRA projects. (Installation should begin FY 2011.) OPM will replace aging outdated equipment with new energy efficient equipment where feasible; this will greatly reduce energy, water and materials consumption which in turn will reduce maintenance costs.

**Table 4-3: Minimizing Energy, Water and Materials Consumption Actions**

Concept	Actions
Minimizing energy consumption	Replace aging outdated equipment with new energy efficient equipment.
	See Goal 1, Greenhouse Gas Reduction, for specific actions to achieve this sub-goal.
Minimizing water consumption	Replace aging outdated equipment with new water efficient equipment.
	See Goal 6, Water Use Efficiency and Management, for specific actions to achieve this sub-goal.
Minimizing materials consumption	Use recycled content asphalt for repaving projects.
	Purchase office furniture and equipment that is durable and made from recycled content.
	Incorporate salvaged, refurbished, and remanufactured furniture and features into the building. If major renovations are taking place, determine if any of the materials from the original structure can be saved.
	Purchase materials that have been extracted and manufactured locally to the building site.

## **MANAGE EXISTING BUILDING SYSTEMS TO REDUCE ENERGY, WATER AND MATERIALS CONSUMPTION IN A MANNER THAT ACHIEVES A NET REDUCTION IN AGENCY DEFERRED MAINTENANCE COSTS**

OPM will integrate technologies and practices that help reduce the agency's deferred maintenance costs in delegated buildings. OPM will coordinate with GSA in the agency's leased spaces to ensure that all facility management departments are taking necessary steps to keep mechanical systems in efficient working order.

### **4-4: Reducing Deferred Maintenance Costs**

<b>Concept</b>	<b>Actions</b>
Maintenance reporting	Install an automated computer program to request and track work orders for system maintenance.
	Work with GSA to audit facility conditions, and prioritize repair efforts.
Mechanical efficiency	Install leak detection and efficiency monitoring systems to accurately track mechanical system operations.

## **OPTIMIZE PERFORMANCE OF THE AGENCY'S REAL PROPERTY PORTFOLIO**

OPM does not own any real property.

## **ENSURE USE OF BEST PRACTICES AND TECHNOLOGY IN REHABILITATION OF HISTORIC FEDERAL PROPERTIES**

OPM will rely on GSA to achieve this objective. At present OPM does not occupy any historic Federal properties.

### **D. POSITIONS**

Please refer back to Section 1 Part IV for a discussion of OPM's staffing needs.

### **E. PLANNING TABLE**

The agency does not own any facilities. All 24 facilities are owned or leased by GSA and OPM manages three delegated properties (Macon, Georgia; Charlottesville, Virginia; and Washington, DC) from the inventory. The ARRA funded projects are expected to be completed in FY 2015 and will put the Theodore Roosevelt Building in Washington, DC in compliance with the Guiding Principles. Since the Theodore Roosevelt Building represents one-third of OPM's delegated facilities, OPM anticipates 33% of its delegated leased facilities will comply with the Guiding Principles by FY 2015. In addition, OPM is currently considering other leased facilities options from GSA for FY 2010, and OPM has requested that 100% of these facilities meet the Guiding Principles.

### **F. AGENCY STATUS**

OPM will depend upon and coordinate with GSA to identify opportunities for minimizing energy, water and materials consumption. As these opportunities are recognized, OPM will notify GSA and work with them to secure funding or cooperation to implement the opportunity. OPM's Space Management staff is aware of the Guiding Principles and these are incorporated whenever feasible into designs the staff completes.



## GOAL 5: REGIONAL AND LOCAL PLANNING

### AUTHORITY

EO 13514, EO 13423

### A. GOAL DESCRIPTION

Regional and local planning incorporates the involvement of a wide variety of stakeholders. OPM uses GSA to procure space nationwide and OPM will coordinate with GSA to implement the objectives of this goal. Sustainable approaches to planning include ‘future-proofing’ facilities, which often requires the involvement of city planners, area occupants, architects, experts, consultants and the general public.

#### Regional and Local Planning Targets

- A. Incorporate participation in regional transportation planning (recognition and use of existing community transportation infrastructure) into existing policy and guidance.
- B. Align agency policies to increase effectiveness of local energy planning.
- C. Incorporate sustainable building location into policy and planning for new Federal facilities and leases.
- D. Update agency policy and guidance to ensure that all Environmental Impact Statements and Environmental Assessments required under the National Environmental Policy Act (NEPA) for proposed new or expanded Federal facilities identify and analyze impacts associated with energy usage and alternative energy sources.
- E. Update agency policy and guidance to ensure coordination and (where appropriate) consultation with Federal, State, Tribal and local management authorities regarding impacts to local ecosystems, watersheds and environmental management associated with proposed new or expanded Federal facilities.

### B. AGENCY LEAD FOR GOAL

The agency lead for the strategy and oversight of this goal will be the Senior Sustainability Officer, while implementation will be through the Security, Facilities and Contracting team.

### C. IMPLEMENTATION METHODS

OPM does not currently have any existing policies relating to this topic. The implementation of such new policies will lead the effort to design, construct, maintain, and operate high performance sustainable buildings in sustainable locations and strengthen the vitality and livability of the communities in which OPM facilities are located. OPM’s involvement will include overall policy on such issues as telecommuting, parking, transportation subsidies, and others.

### INCORPORATE PARTICIPATION IN REGIONAL TRANSPORTATION PLANNING INTO EXISTING POLICY AND GUIDANCE.

By understanding what community transportation infrastructure currently exists and how agency employees use this infrastructure, OPM can identify how alternative transportation options would improve the economic, environmental, and social welfare of the agency and its employees. By participating on local/regional transportation planning committees, OPM will collaboratively work to develop a livable and sustainable community.

**Table 5-1: Regional Transportation Planning Actions**

Concept	Actions
Regional transportation planning <sup>11</sup>	Identify local/regional transportation planning committees.
	Create a task force to coordinate between OPM, GSA as well as local/regional transportation departments.
	Incorporate requirement to participate in regional transportation planning efforts into existing policies. Identify purpose and goals of participation in these planning efforts.
Recognition and use of existing community transportation infrastructure	Coordinate with GSA to conduct a review of existing transportation systems impacting OPM facilities.
	Survey employees to identify current use of transportation infrastructure, and areas of interest for expansion.
	Explore the possibilities of implementing or increasing the use of telecommuting, parking policies, transportation subsidies, etc.
Education and outreach	Educate employees on existing mass transit opportunities.
	Encourage employees to use mass or exercise-based (e.g., biking) transit through incentive programs.

### **ALIGN AGENCY POLICIES TO INCREASE EFFECTIVENESS OF LOCAL ENERGY PLANNING.**

In an effort to support this goal, OPM is using ARRA funds to install solar photovoltaic panels on the roof of the Theodore Roosevelt Building to supply electricity for building lighting. In addition, OPM plans to research future actions it can take to support local clean energy planning through agency policies.

**Table 5-2: Local Energy Planning Actions**

Concept	Actions
Local clean energy planning <sup>12</sup>	Research existence of clean/renewable energy alliances in local area.
	Endorse goals of local renewable energy planning efforts.
	Incorporate goals of local renewable energy planning efforts into existing policies.
Aligning agency policies	Create a working group composed of GSA and OPM employees, with the goal of increasing the effectiveness of local renewable energy planning.
	Identify opportunities and challenges in attaining local renewable energy.

### **INCORPORATE SUSTAINABLE BUILDING LOCATION INTO POLICY AND PLANNING FOR NEW OPM SPACE ASSIGNMENTS.**

OPM does not own any buildings, and all of its building space is leased from GSA. Therefore OPM will coordinate sustainable building design and location goals with GSA to the greatest extent possible.

**Table 5-3: Sustainable Building Location Actions**

Concept	Actions
Building location	Develop internal policies requiring all newly leased facilities be located in existing central cities or town centers, accessible to public transportation, located near existing employment centers, and/or pedestrian friendly

	Coordinate with GSA to ensure facilities are located in areas which are: <ul style="list-style-type: none"> <li>• pedestrian friendly</li> <li>• near existing employment centers</li> <li>• accessible to public transportation</li> <li>• in existing central cities and town centers, etc.</li> </ul>
--	--

**UPDATE AGENCY POLICY AND GUIDANCE TO ENSURE THAT OPM NOTIFIES GSA OF THE AGENCY’S CONCERN THAT ALL ENVIRONMENTAL IMPACT STATEMENTS AND ENVIRONMENTAL ASSESSMENTS REQUIRED UNDER THE NATIONAL ENVIRONMENTAL POLICY ACT (NEPA) FOR PROPOSED NEW OR EXPANDED FEDERAL FACILITIES IDENTIFY AND ANALYZE IMPACTS ASSOCIATED WITH ENERGY USAGE AND ALTERNATIVE ENERGY SOURCES.**

OPM does not own any buildings, and OPM does not anticipate it will alter its current practice of having GSA acquire and assign to OPM the spaces that this agency occupies. Therefore, OPM will develop a policy asking GSA to ensure that any new or expanded facilities occupied by OPM will incorporate an environmental assessment and energy analysis as part of the NEPA process.

**COORDINATE WITH REGIONAL PROGRAMS FOR FEDERAL, STATE, TRIBAL AND LOCAL ECOSYSTEM, WATERSHED AND ENVIRONMENTAL MANAGEMENT.**

OPM does not own any buildings, and OPM does not anticipate it will alter its current practice of having GSA acquire and assign to OPM the spaces that this agency occupies. Therefore, OPM will work with GSA to ensure that Federal, state, tribal, and local management authorities are consulted on any potential ecosystem, watershed, and environmental management impacts associated with proposed new or expanded facilities.

**D. POSITIONS**

Please refer back to Section 1 Part IV for a discussion of OPM’s staffing needs.

**E. PLANNING TABLE**

EO 13514 does not mandate a specific timeline for goal implementation. However, it is understood that OPM will implement the goals and initiatives during the course of FY 2010 through FY 2020. The goal attainment is reasonable and feasible and OPM plans on incorporating the goals listed in EO 13514.

OPM will assess the cost-effectiveness of the planning measures, as well as account for the social and local economic benefits that regional and local planning provide. Anticipated cost of planning entails staff time in coordinating with GSA.

**F. AGENCY STATUS**

This initiative is very new and OPM’s staff is not trained in its implementation. OPM will provide staff training and engage in dialogue with GSA to ensure regional and local planning objectives are addressed when OPM’s office locations are sought.

## GOAL 6: WATER USE EFFICIENCY AND MANAGEMENT

### AUTHORITY

EO 13514, EO 13423, EISA, Federal Leadership in High Performance and Sustainable Buildings  
Memorandum of Understanding

### A. GOAL DESCRIPTION

There already exist several Federal controls on water management and treatment. EO 13514 goes further by requiring agencies to reduce the total volume used and the use intensity, aimed as much at water conservation as at water pollution prevention. The water efficiency and management goal established several standards for water use intensity reduction that agencies must meet.

#### Water Efficiency and Management Targets

- A. Reduce potable water use intensity by at least 26% by FY 2020.
- B. Reduce industrial, landscaping, and agricultural water use by at least 20% by FY 2020.
- C. Identify and implement water reuse strategies.
- D. Achieve objectives established by Environmental Protection Agency (EPA) in Stormwater Guidance for Federal Facilities.

### B. AGENCY LEAD FOR GOAL

The lead for the agency is the Building Operations and Facilities Management staff.

### C. IMPLEMENTATION METHODS

This section identifies and describes OPM's methods for implementation of the cost, schedule, and performance towards water use efficiency and management. This goal is interrelated with Goal #4, since reducing potable water use by facilities will be accomplished through high performance building requirements. Water conservation and energy conservation are also interrelated goals, so replacing fixtures and equipment with high-efficiency models will additionally save energy and reduce GHG emissions (Goal 1).

### REDUCE POTABLE WATER USE BY 26%<sup>13</sup>

Potable water is water that can be consumed or used without risk of immediate or long term harm. For OPM, opportunities to reduce potable water exist within office buildings and their associated landscapes. Specific actions for conserving water include the following.

**Table 6-1: Potable Water Reduction Actions**

Concept	Actions
Analyzing efficiency	Calculate baseline water consumption metrics.
	Conduct an audit of the water system.
Replacing/ retrofitting existing fixtures <sup>14</sup>	Replace existing toilets with low-flow and/or dual-flush models, or retrofit existing toilets with dual-setting flush valves. <sup>15</sup>
	Install low-flow and/or waterless urinals.
	Replace faucets with low-flow models, or retrofit existing faucets with aerators.
	Install circulating cooling system.
	Replace water-cooled ice machines with Energy Star labeled, air cooled

Updating commercial kitchen	models.
	Install self-closing, air-cooled water fountains.
	Replace kitchen appliances (e.g., dishwasher, steam cooker) with high-efficiency, Energy Star models.
	Set equipment water temperatures and flow rates to minimum recommended by manufacturer.
	Install flow restrictors in pre-rinse spray valves.
Education and outreach	Attain Green Commercial Kitchen certification. <sup>16</sup>
	Research EPA's WaterSense Commercial and Institutional Program for program ideas.
	Post water awareness information to encourage efficiency from staff.
	Specify purchase of WaterSense labeled products in purchasing agreements.
Operation and maintenance	Train facility staff to report leaks and malfunctioning water-using equipment.
	Develop and implement a routine inspection and maintenance program for HVAC system.
	Install automatic shut-off valves for equipment not in operation.
	Develop and implement a standard operating procedure (SOP) for checking, reporting, and resolving building water leaks every six months.
	Install conductivity controller on cooling tower.
	Optimize water cooling tower by maintaining optimal cycles of concentration (i.e., 6 or more cycles).
	Repair leaks and/or replace pipes as necessary.

## **REDUCE INDUSTRIAL, LANDSCAPING, AND AGRICULTURAL WATER USE BY 20%<sup>17</sup>**

A sustainable landscape is in balance with the local climate and requires minimal resource inputs, such as fertilizer, pesticides and water. Sustainable landscaping begins with an appropriate design and includes functional, cost-efficient, visually pleasing, environmentally friendly and maintainable areas. Sustainable landscaping means using water appropriately and avoiding waste. Specific actions for reducing water use in landscaping include the following.

**Table 6-2: Industrial, Landscaping, and Agricultural Water Reduction Actions**

<b>Concept</b>	<b>Actions</b>
Landscape planning and design	Minimize the amount of turf. In areas where turf is used, plant drought-tolerant, slow-growing turf.
	Group plants that have similar water requirements.
	Select and plant native vegetation with water requirements that correspond to local rainfall patterns. <sup>18</sup>
Improving irrigation	Hire a contractor certified through the WaterSense Labeled Program to conduct a water audit of existing irrigation system.
	Inspect irrigation system monthly.
	Trim or remove vegetation blocking irrigation to preserve intended pattern of system.
	Install low trajectory sprinklers.
	Install rain shutoff and other sensory devices as appropriate for site

	conditions.
Minimizing evaporation	Irrigate plants in early morning or evening.
	Install drip or sub-surface irrigation for trees, shrubs and garden beds.

## IDENTIFY AND IMPLEMENT WATER REUSE STRATEGIES

Water reuse is the reclamation of wastewater or raw water for a direct beneficial purpose.

Opportunities for OPM to reclaim water results from building activities such as dishwashing and bathing (greywater), and rain water (raw water). Specific actions for reusing non-potable water include the following.

**Table 6-3: Water Reuse Actions**

Concept	Actions
Using greywater	Identify opportunities to capture building greywater (e.g., laundry, dishwashing, showers).
	Identify opportunities to reuse greywater throughout building (e.g., for irrigation, toilets, exterior washing).
	Check with local authorities regarding special/local concerns and regulations pertaining to greywater usage.
	Hire a contractor to design and install a greywater recycling system.
Using raw water <sup>19</sup>	Identify opportunities to use raw water throughout building (e.g., washing walkways, watering plants).
	Research systems available for collecting raw water for reuse (e.g., rain barrels, cisterns).
	Install system to collect and use raw water.
Other	Modify single-pass cooling equipment (e.g., ice machines) to recirculate water, or replace with air-cooled models. <sup>20</sup>

## ACHIEVE STORMWATER GUIDANCE FOR FEDERAL FACILITIES OBJECTIVES<sup>21</sup>

Any development or redevelopment project involving an OPM facility with a footprint that exceeds 5,000 square feet will use site planning, design, construction, and maintenance strategies for the property to maintain or restore, to the maximum extent technically feasible, the predevelopment hydrology of the property with regard to the temperature, rate, volume, and duration of flow.

**Table 6-4: Achieving Stormwater Guidance for Federal Facilities Objective Actions**

Concept	Actions
Evaluate design options <sup>22</sup>	Minimize building footprint by building up instead of out.
	Install wellness garden at south end of property.
	Re-vegetate area using native plants and trees.
	Convert impervious roof surfaces to green roofs.
	Install rain gardens, bioretention and infiltration planters.
	Replace impervious surfaces (e.g., sidewalks, parking lots) with porous/permeable pavements.
Documenting implementation	Finalize design and have it reviewed by a registered professional engineer (PE).
	Develop and maintain design criteria documentation for each project.
	Join EPA's Green Infrastructure Partnership. <sup>23</sup>

## D. POSITIONS

Please refer back to Section 1 Part IV for a discussion of OPM's staffing needs.

## E. PLANNING TABLE

Table 6-5 below is designed to show quantitative targets and the projected internal financial resources needed to achieve the targets outlined in this plan.

**Table 6-5: Water Use Efficiency & Management**

TARGETS AND FINANCIAL RESOURCES	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
Other, as defined by agency	NA	NA	NA	NA	NA	NA	NA	NA	NA

## F. AGENCY STATUS

OPM will depend upon and coordinate with GSA to identify opportunities for minimizing water consumption. As these opportunities are recognized, OPM will notify GSA and work with them to secure funding or cooperation to implement the opportunity.

## GOAL 7: POLLUTION PREVENTION AND WASTE ELIMINATION

### AUTHORITY

EO 13514, EO 13423, 40 Code of Federal Regulations (CFR) 355 Emergency Planning and Community Right-to-Know Act (EPCRA), 40 CFR 1910.1200 Hazard Communication Standard

### A. GOAL DESCRIPTION

OPM currently complies with all Federal mandates such as Occupational Safety and Health Standards, Safety and Health Regulations for Construction, the Clean Water Act, EPCRA, the Pollution Prevention Act of 1990, the National Oil and Hazardous Substances Pollution Contingency Plan, and EPA regulations on Oil Pollution Prevention, and will continue to do so. OPM currently compiles reports in accordance with the requirements of each regulation or standard mentioned. In the Theodore Roosevelt Building, OPM recycles newspapers, paper, cardboard, metal, copper, aluminum, plastic bottles, light bulbs, batteries and ink/toner cartridges, with regular deliveries to the local Recycling Center. OPM also donates computers to the Computers for Learning Program which keeps computers out of the waste stream.

OPM will implement all aspects of EO 13514, develop additional goals as appropriate, and identify other areas for further reductions in waste.

#### **Pollution Prevention and Waste Elimination Sub-Goals**

- A. Increase source reduction of pollutants and waste.
- B. Divert at least 50% non-hazardous solid waste by FY 2015, excluding construction and demolition (C&D) debris.
- C. Divert at least 50% C&D materials and debris by FY 2015.
- D. Reduce paper printing.
- E. Increase use of uncoated printing and writing paper containing at least 30% postconsumer fiber.
- F. Reduce and minimize the acquisition, use, and disposal of hazardous chemicals and materials.
- G. Increase diversion of compostable and organic materials from the waste stream.
- H. Implement integrated pest management (IPM) and landscape management practices to reduce and eliminate the use of toxic and hazardous chemicals and materials.
- I. Increase agency use of acceptable alternative chemicals and processes.
- J. Decrease agency use of chemicals to assist agency in achieving FY 2020 GHG reduction targets.
- K. Report in accordance with Sections (301-313) of EPCRA.

### B. AGENCY LEAD FOR GOAL

In conjunction with OPM's Senior Sustainability Officer and Facilities Operational Staff, and in compliance with EO 13514, the Facility Management Staff is responsible for developing and managing the OPM pollution prevention system, as well as the hazardous materials and chemicals program.

### C. IMPLEMENTATION METHODS

This section identifies and describes OPM's methods for implementation of the cost, schedule, and performance towards preventing pollution and eliminating waste. To facilitate the process, OPM will develop an agency-wide tool to track waste generated, diverted, and disposed. OPM has begun implementing a waste tracking system at the Theodore Roosevelt Building but there is not currently an agency-wide procedure for capturing these data. This task presents challenges due to the number of



other tenants in OPM's buildings and the difficulty in controlling waste management among these tenants. For that reason, the development of an agency-wide waste tracking tool is a long-term goal.

Schedule: EO 13514 establishes an abbreviated timeline for two of the goals mentioned in the pollution prevention sub-goals.

- Divert at least 50% non-hazardous solid waste by FY 2015, excluding construction and demolition (C&D) debris; and
- Divert at least 50% C&D materials and debris by FY 2015.

The remaining sub-goals of EO 13514 pertaining to pollution prevention and waste elimination are to be implemented on the FY 2020 timeline or sooner by OPM.

Source reduction, pollution prevention and issues relating to the handling of hazardous waste all carry different levels of cost-benefit relationships. Implementing greater levels of source reduction is an inherently cost effective measure. While the procurement of less harmful chemicals may not be the most economical decision upfront, environmental benefits may outweigh this initial financial cost. OPM, working in conjunction with contractors, will increase levels of initial investment in alternative chemicals and practices, which will yield a safer work environment, while providing greater economic benefit.

Pollution prevention and waste elimination directly relates to reducing GHG emissions, efficiently managing water use, implementing sustainable acquisition practices, and managing electronics responsibly. Hazardous chemicals, such as refrigerants, are a significant factor contributing to GHG emissions. By reducing the amounts and types of hazardous chemicals used by the agency, OPM can reduce its contribution to GHG emissions. Water is used in the manufacturing process for most, if not all, products on the market. Reusing already manufactured products internally or through donation will create less of a demand for newly manufactured products, thereby reducing the need for water in the process. By purchasing environmentally preferable products, such as those that are biodegradable, OPM can reduce the amount of waste generated and accumulated in landfills. Electronic products contain heavy metals which should not be disposed of with regular trash. By donating usable electronics and deconstructing electronics for their reusable components harmful substances will be diverted from the waste stream.

## SOURCE REDUCTION OF POLLUTANTS AND WASTE

Source reduction refers to the practice of designing, manufacturing, purchasing, or using materials in ways that reduce the amount or toxicity of trash created<sup>24</sup>. For OPM, source reduction opportunities exist through sustainable acquisition (see Goal 8) and product reuse. OPM's Affirmative Procurement Program (APP) describes source reduction activities that employees should strive to implement. In addition, staff at Theodore Roosevelt Building have already begun developing a system to reuse products within the agency. Some specific actions for source reduction are listed below in Table 7-1.

**Table 7-1: Source Reduction Actions**

Concept	Actions
Reduce amount of new products acquired	Develop a centralized web-based program for employees to share usable office products (similar to Craigslist).
	Advertise the product sharing database in an announcement or already established newsletter.
Reuse products	Identify opportunities to reuse items (such as packaging) and to

	substitute single use items with reusable items (e.g., reusable mugs rather than Styrofoam cups).
	Donate single use items or phase out purchase of them until they are no longer present.
	Purchase and incorporate reusable items.
Purchase products with minimal packaging/bulk	Research office products that can be ordered and delivered to OPM with minimal packaging.
	Develop a forum to coordinate bulk purchases with colleagues.
	Communicate forum and research to colleagues through a bulletin or other method.

### **DIVERT 50% OF NON-HAZARDOUS SOLID WASTE, EXCLUDING C&D**

EPA defines solid waste as any garbage or refuse, sludge from a wastewater treatment plant, water supply treatment plant, or air pollution control facility and other discarded material, including solid, liquid, semi-solid, or contained gaseous material resulting from industrial, commercial, mining, and agricultural operations, and from community activities<sup>25</sup>. OPM's APP requires that all OPM locations implement an office recycling program for waste white paper; other materials will be incorporated where feasible. Specific actions for diverting non-hazardous solid waste are listed below in Table 7-2.

**Table 7-2: Solid Waste Diversion Actions**

<b>Concept</b>	<b>Actions</b>
Increase participation by OPM employees in recycling efforts	Update the recycling program to include toner cartridges, batteries, fluorescent lamps, and cardboard.
	Continue holding meetings with the Pollution and Waste Control Committee to monitor the program and track recycling amounts.
	Develop web-based training for employees on the recycling program (and document training date, who completes it, and what topics were covered).
	Develop a "How to Dispose" chart for Theodore Roosevelt Building and place on the intranet for easy access.
	Set up a recycling area for less common materials (e.g., printer cartridges, CDs/DVDs, household/office batteries, phone books/magazines, hard bound books, and colored paper).
	Purchase and distribute recycling containers and post signage to promote the program.
	Maintain records of recycled non-hazardous solid wastes to demonstrate diversion.
Donate	Identify products that are no longer needed.
	Create a system to collect these items in a centralized location and track quantity of items to donate.
	Identify suitable organizations to receive donations.

### **DIVERT 50% OF C&D MATERIALS AND DEBRIS**

C&D materials consist of the debris generated during the construction, renovation, and demolition of buildings, roads, and bridges. C&D materials often contain bulky, heavy materials, such as concrete, wood, metals, glass, and salvaged building components<sup>26</sup>. Specific actions for diverting C&D materials are listed below in Table 7-3.

**Table 7-3: Construction and Demolition Material Diversion Actions**

Concept	Actions
Reduce	Research contractors that use advanced framing techniques and Optimum Value Engineering for new construction.
	Join EPA's WasteWise Building Challenge <sup>27</sup> to receive implementation assistance.
	Identify opportunities to deconstruct structures in order to salvage building materials.
Reuse <sup>28</sup>	Where possible, specify the reuse of suitable C&D materials within OPM.
	If internal reuse is not possible, donate or sell materials for reuse.
	Identify which materials generated by OPM C&D activities can be recycled.
	Research C&D materials recyclers.
Recycle <sup>29</sup>	Require all contractors to recycle C&D waste in accordance with Leadership in Energy and Environmental Design (LEED) certification criteria.
	Maintain records of recycled C&D materials to demonstrate diversion.

## REDUCE PAPER PRINTING USE

Paper is the most prevalent material in the municipal solid waste stream. Reducing and reusing paper lessens GHG emissions, conserves natural resources, and saves landfill space<sup>30</sup>. Specific actions for reducing paper printing use are listed below in Table 7-4.

**Table 7-4: Paper Printing Reduction Actions**

Concept	Actions
Avoid and reduce printing	Limit reviews and proofreads of documents to computer screen only.
	Implement use of electronic routing system for documents that tracks changes.
	Program network printers to automatic duplex printing.
	Ensure that all new printers purchased are equipped with the duplex setting.

## INCREASE USE OF UNCOATED PAPER AND 30% POST CONSUMER PAPER

Certain types of paper are more environmentally preferable than others. Buying recycled-content products ensures that the materials collected in recycling programs will be used again in the manufacture of new products<sup>31</sup>. The EPA Comprehensive Procurement Guideline (CPG) sets minimum standards for recycled-content products, including printing and writing paper. Federal agencies are required to purchase CPG products at or above the minimum recycled content specified. Specific actions for increasing use of uncoated printing and writing paper containing at least 30% postconsumer fiber are listed below in Table 7-5.

**Table 7-5: Uncoated Paper and 30% Post Consumer Paper Actions**

Concept	Actions
Purchase	Research uncoated printing and writing papers and papers with at

environmentally preferable (EP) printing and writing paper	least 30% postconsumer fiber.
	Require employees to only purchase printing and writing paper that is 30% post consumer fiber.
	Test EP products and assess effectiveness, cost, and availability.
	If products are effective, reasonably priced, and readily available limit staff to the purchase of only these products.

## REDUCE ACQUISITION, USE, AND DISPOSAL OF HAZARDOUS MATERIALS

As consumers become more educated about the potential human health and environmental effects of hazardous materials, the demand for non-toxic products has grown significantly. The Federal government is a leader in the market and, as such, has been tasked with positively influencing the demand for EP chemicals. Specific actions for reducing acquisition, use, and disposal of hazardous materials are listed below in Table 7-6.

**Table 7-6: Reducing Acquisition, Use, and Disposal of Hazardous Materials Actions**

Concept	Actions
Acquire non-hazardous products	Research EP alternatives for the materials identified.
	Test EP products and assess effectiveness, cost, and availability.
	If products are effective, reasonably priced, and readily available, limit staff to the purchase of only these products.
Use existing hazardous materials responsibly <sup>32</sup>	Require contractors to use EP products in place of toxic/hazardous materials wherever feasible.
	Obtain material safety data sheets (MSDSs) for all hazardous materials used <sup>33</sup> .
	Train employees on hazardous materials management (document date of training, who attended, who administered the training, and what topics were covered).
Dispose of hazardous materials responsibly	Designate an individual or team to monitor hazardous materials management.
	Where possible, reuse materials within OPM.
	If reuse by OPM is not possible, donate or sell materials for reuse by other entities.
	If the material can no longer be used, hire a hazardous waste contractor to appropriately dispose of the hazardous material.

## DIVERT COMPOSTABLE AND ORGANIC MATERIALS FROM THE WASTE STREAM

Compost is organic material that, when managed properly, can be used as a nutrient-rich medium to grow plants<sup>34</sup>. In office spaces, food wastes are likely one of the most significant contributions to the solid waste stream. By implementing a program to compost organic materials generated at the office, OPM can effectively reduce the amount of waste it sends to the landfill. OPM has begun the planning and budgeting process to implement an extensive composting program. This program will be the agency's focus for the upcoming years to help achieve the waste diversion goals set forth in EO 13514. Specific actions for diverting compostable and organic materials from the waste stream are listed in Table 7-7.

**Table 7-7: Compostable and Organic Material Diversion Actions**

Concept	Actions
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Use organic and compostable materials and Compost	Identify opportunities to substitute conventional single use items with compostable alternatives.
	Purchase and use compostable items.
	Purchase and use only compostable paper and plastic products in cafeteria operations.
	Purchase and distribute collection containers for compostable materials.
	Evaluate opportunities for composting on site.
	If composting on site is not a practical option, research local organizations to whom compostable materials can be donated.

## IMPLEMENT INTEGRATED PEST MANAGEMENT

IPM is an effective and environmentally sensitive approach to pest management that uses current, comprehensive information on the life cycles of pests and their interaction with the environment<sup>35</sup>. Specific actions for implementing IPM practices are listed in Table 7-8.

**Table 7-8: Integrated Pest Management Implementation Actions**

Concept	Actions
Commit to follow GSA's IPM policies	Identify pests common in the OPM workplace that may require control.
	Evaluate methods to prevent the identified pests from entering the space (such as removing attractants).
	If prevention does not suffice, research environmentally preferable control options (mechanical control and highly targeted chemicals such as pheromones are ideal).

## INCREASE USE OF ALTERNATIVE CHEMICALS AND PROCESSES

Contractors can contribute significantly to an agency's impact on the environment. By requiring contractors to implement EP practices, OPM can increase its use of alternative chemicals and processes and reduce its environmental impact. Specific actions for increasing the use of alternative chemicals and processes actions are listed below in Table 7-9.

**Table 7-9: Increasing Use of Alternative Chemicals and Processes Actions**

Concept	Actions
Increase alternative chemical use by contractors	Through contract language and assessments, require contractors to use EP and/or biobased products in place of toxic or environmentally harmful products.
	Through contract language and assessments, require contractors to conduct an annual assessment to see if any toxic chemicals can be replaced by EP products.

## DECREASE USE OF CHEMICALS TO REACH GHG REDUCTION TARGETS

Some equipment, such as HVACs, emit GHGs (such as refrigerants) and contribute to global climate change (See Goals 1 and 2). By decreasing the purchase and use of certain chemicals, OPM can reduce its GHG emissions. Specific actions for decreasing the use of chemicals to reach GHG reduction targets are listed in Table 7-10.

**Table 7-10: Decreasing Use of Chemicals to Reach GHG Reduction Targets Actions**

Concept	Actions
Phase out high global warming potential (GWP) substances	Compile an inventory of all chemicals with high GWP (e.g., building and vehicle air conditioning units, vending machines, refrigerators).
	Research replacement chemicals, processes, and/or systems that are EP.
	If cost effective, test replacement chemicals and processes.
	If effective chemicals are identified, replace current chemicals with alternatives and prohibit purchase and use of high GWP products.
	Track the purchase of non-GHG emitting refrigerants in the EP product tracking tool.

## REPORT IN ACCORDANCE WITH EPCRA

EPCRA outlines requirements for notifying local authorities if large quantities of hazardous materials are stored at a facility. OPM may be subject to these requirements if any one facility stores a hazardous material above the threshold designated for that hazardous material.

**Table 7-11: Reporting in Accordance with EPCRA Actions**

Concept	Actions
Understand EPCRA requirements <sup>36</sup>	Identify hazardous substances which are stored at or above the threshold planning quantity for EPCRA reporting.
	If OPM is subject to EPCRA, identify and the State Emergency Response Commission (SERC) and notify them of OPM's status.
	Choose a representative for each applicable facility to participate in the Local Emergency Planning Committee (LEPC).
	Develop a procedure that instructs employees to immediately notify the LEPC and SERC in the event of a release of the applicable hazardous materials..
	Train employees on the notification procedure (document date of training, who attended, who administered the training, and what topics were covered).
Complete EPCRA chemical inventory reporting	Assign an individual or team to manage EPCRA reporting.
	If EPCRA hazardous substances are identified, obtain an MSDS for each hazardous substance and submit to the LEPC, SERC, and local fire department.
	Develop a system to ensure Tier I or Tier II reports are submitted annually to the LEPC, SERC, and local fire department for EPCRA hazardous substances. <sup>37</sup>
Complete Toxic Release Inventory (TRI) reporting <sup>38</sup>	Identify hazardous substances which are stored at or above threshold amounts for TRI reporting.
	Prepare and submit a TRI report (also known as Form R) to SERC and EPA for EPCRA hazardous substances by July 1 annually. Maintain a copy of TRI reports for at least three years.

## D. POSITIONS

Pollution prevention and waste elimination is not new for the agency, but OPM continues to face a lack of personnel with the appropriate skill set to support these sustainability initiatives. OPM estimates one FTE or part-time equivalent (PTE) for approximately six hours per week to complete Goal 7 tasks.

## E. PLANNING TABLE

Table 7-12 below is designed to show quantitative targets and the projected internal financial resources needed to achieve the targets outlined in this plan.

**Table 7-12: Pollution Prevention & Waste Elimination Planning Table**

TARGETS AND FINANCIAL RESOURCES	Units	FY 10	FY 11	FY 12	FY 13	FY 14	FY 15
Non-Hazardous Solid Waste Diversion Targets (non C&D)	%	14	16	31	39	43	50
C&D Material & Debris Diversion Targets	%	0	0	15	17	25	50
Other, as defined by agency	n/a	n/a	n/a	n/a	n/a	n/a	n/a

## F. AGENCY STATUS

OPM will depend upon and coordinate with GSA to identify opportunities for minimizing materials consumption. As these opportunities are recognized, OPM will notify GSA and work with them to secure funding or cooperation to implement the opportunity.

For FY 2009, OPM measured a 14% diversion rate for non-hazardous solid waste. If FY 2010 diversion rates stay consistent with current calculations, OPM will achieve a 29% non-hazardous solid waste diversion rate in FY 2010. The Pollution and Waste Committee believes the 50% solid waste diversion rate can be achieved through the activities presented in Table 7-2.

## GOAL 8: SUSTAINABLE ACQUISITION

### AUTHORITY

EO 13514, EO 13423

### A. GOAL DESCRIPTION

OPM has developed and implemented an existing Affirmative Procurement Plan (APP) to ensure sustainable acquisition contract clauses are included in all agency acquisitions. OPM is committed to taking further steps to update its APP and measure the percentage of its contract actions that fulfill the sustainable acquisition requirements.

#### Sustainable Acquisition Sub-Goals

- A. Ensure 95% of new contract actions, including task and delivery orders under new contracts and existing contracts, require the supply or use of products and services that are energy efficient (Energy Star or FEMP-designated), water efficient, biobased, environmentally preferable (excluding EPEAT-registered products), non-ozone depleting, contain recycled content, or are non-toxic or less toxic alternatives.
- B. Update agency affirmative procurement plans (also known as green purchasing plans or environmentally preferable purchasing plans), policies and programs to ensure that all Federally-mandated designated products and services are included in all relevant acquisitions.

### B. AGENCY LEAD FOR GOAL

In conjunction with OPM Chief Sustainability Officer and Facilities Operational Staff, and in compliance with EO 13514, the Contracting Staff is responsible for developing and managing OPM sustainable acquisition.

### C. IMPLEMENTATION METHODS

OPM has developed an APP and will develop a tool to track purchases of environmentally preferable products and services.

OPM developed an agency-wide APP in 2009 to address the environmental purchasing requirements set forth in paragraph 23.404 of the Federal Acquisition Regulation (FAR) and EO 13423. The plan will be updated to include new requirements described in EO 13514.

Sustainable acquisition directly affects reducing GHG emissions, constructing high-performance green buildings, efficiently managing water use, and preventing pollution and eliminating waste. By purchasing non-ozone depleting refrigerants, OPM will reduce its GHG emissions. OPM can purchase sustainably harvested wood, recycled content carpeting, low-volatile organic chemical paints, and many other environmentally preferable products to support sustainable building design for construction and renovation projects. Purchasing water efficient products, such as those identified by the EPA WaterSense program, will preserve valuable resources and likely reduce water management costs significantly in the long term. By purchasing EP products, such as those that are biodegradable, OPM can reduce the amount of waste generated and accumulated in landfills.

### ENSURE 95% OF NEW CONTRACT ACTIONS USE EP PRODUCTS



EP products or services are those that have a lesser or reduced effect on human health and the environment when compared with competing products or services that serve the same purpose<sup>39</sup>. Practicing sustainable acquisition often leads to long-term financial benefits, improved worker safety, and reduced impacts to the environment. Federal agencies make up a purchasing power that greatly influences the market, so in addition to the benefits listed above, Federal purchases of EP products will lead to increased availability of EP products for all other customers. OPM has some procedures for green contract management in place. For example, clauses are inserted into contracts explaining the EP product requirements set forth in section 23.402 of the FAR. Specific actions for incorporating EP products into 95% of new contracts are listed below in Table 8-1.

**Table 8-1: EP Products in New Contracts Actions**

Concept	Actions
Green contract management	Identify contracts that have the potential to incorporate EP products and services.
	Incorporate the 1752.223-71 FAR clause regarding the purchase of EP products and services into applicable new contracts.
	Train contracting staff on use of the EP product tracking tool (see Table 8-3).
Buy energy efficient products	Identify products used at OPM that are available in Energy Star rated <sup>40</sup> or FEMP-designated <sup>41</sup> varieties.
	Develop a procedure to phase out non-Energy Star/FEMP products as they get old or when new renovations are made (incorporate into the APP).
Buy water efficient products	Identify products used at OPM that are sold in WaterSense <sup>42</sup> labeled varieties.
	Develop a procedure to phase out non-WaterSense products as they get old or when new renovations are made (incorporate into the APP).
	Track the purchase of water efficient products in the EP product tracking tool.
Buy biobased products <sup>43</sup>	Identify products used at OPM that are available in biobased varieties.
	Develop a procedure to phase in biobased products as non-biobased products are used up or otherwise disposed (incorporate into the APP).
	Track the purchase of biobased products in the EP product tracking tool.
Buy recycled content products	Identify products used at OPM that are available in recycled content varieties.
	Review the EPA's Comprehensive Procurement Guidelines (CPG) <sup>44</sup> (which contains requirements for minimum recycled content products).
	Develop a procedure to phase in recycled content products as non-recycled content products are used up or when new renovations are made (incorporate into the APP).
	Track the purchase of recycled content products in the EP product tracking tool.

Buy non-ozone depleting substances (ODSs) <sup>45</sup>	Identify products used at OPM that are available in non-ozone depleting varieties.
	Develop a procedure to phase out ODSs as they are used up or when new renovations are made (incorporate into the APP).
	Track the purchase of non-ODSs in the EP product tracking tool.
Buy EP products	Identify the types of products used at OPM that may have EP alternatives.
	Research EP alternatives for the products identified (such as non-toxic hazardous materials).
	Test EP products and assess effectiveness, cost, and availability.
	If products are effective, reasonably priced, and readily available, limit staff to the purchase of only these products.
	Track the purchase of recycled content products in the EP product tracking tool.
Buy sustainable vehicles/fuel	Inventory OPM's fleet to determine average use and need for vehicles. Where cuts can be made, consider donating or removing vehicles from the fleet (right-sizing).
	When new vehicles are needed, consider hybrids, plug ins, or more fuel efficient options.
	Track the purchase of more sustainable vehicles in the EP product tracking tool.
	Develop and use a tool to compare fuel efficiency of sustainable versus conventional vehicles within OPM.

## UPDATE OPM AFFIRMATIVE PROCUREMENT PLANS

Affirmative procurement plans (otherwise known as green purchasing or environmental purchasing plans) set forth policies to incorporate environmental considerations into purchases of goods and services. OPM contracting employees and those employees with purchase cards are provided APP awareness training annually. Specific actions for updating OPM's APP are listed below in Table 8-2.

**Table 8-2: Affirmative Procurement Plan Update Actions**

Concept	Actions
Manage sustainable acquisition	Assign an individual or team responsibility for managing sustainable acquisitions and plan updates.
	Review existing APP.
	Review recently instituted environmental purchasing requirements (such as those in EO 13514).
	Review agency and department EP initiatives.
	Update plan to incorporate the new requirements.
	Develop a tool to track EP purchases (should include justifications for not purchasing EP products when they are available, e.g., the product did not perform adequately).
	Provide training to staff at all levels on plan updates and the EP product tracking tool (document date of training, who attended, who administered the training, and what topics were covered).

## D. POSITIONS

Sustainable acquisition is not new for the agency, but OPM has not institutionalized sustainable acquisitions throughout the entire agency. Please refer back to Section 1 Part IV for a discussion of OPM's staffing needs.

## E. PLANNING TABLE

Table 8-3 below is designed to show quantitative targets and the projected internal financial resources needed to achieve the targets outlined in this plan.

**Table 8-3: Sustainable Acquisition Planning Table**

TARGETS AND FINANCIAL RESOURCES	Units	FY 10	FY 11	FY 12	...	FY 20
New Contract Actions Meeting Sustainable Acquisition Requirements	%	95	95	hold	hold	hold
Energy Efficient Products (Energy Star, FEMP-designated, and low standby power devices)	%	95	95	95	95	95
Water Efficient Products	%	95	95	95	95	95
Biobased Products	%	95	95	95	95	95
Recycled Content Products	%	95	95	95	95	95
Environmentally Preferable Products/Services (excluding EPEAT)	%	95	95	95	95	95
SNAP/non-ozone depleting substances	%	95	95	95	95	95
Other, as defined by agency	n/a					

## F. AGENCY STATUS

In the year ahead, OPM will work to institutionalize sustainable acquisition throughout the agency. OPM will document the successes and challenges encountered while trying to create a culture of sustainability.

## GOAL 9: ELECTRONIC STEWARDSHIP & DATA CENTERS

### AUTHORITY

EO 13514, EO 13423

### A. GOAL DESCRIPTION

OPM is dependent on the efficient and optimal functioning of its datacenter<sup>46</sup>. OPM is already developing policies to promote an Electronic Stewardship program. In order to further reduce OPM's GHG footprint, OPM's Network Management commits to the following objectives prescribed by EO 13514:

- a. Establish and implement policy and guidance to ensure use of power management, duplex printing, and other energy efficient or environmentally preferred options and features on all eligible agency electronic products.
- b. Update agency policies as needed, but no less than annually, to reflect environmentally sound practices for disposition of all agency excess or surplus electronic products.
- c. Update agency policies as needed, but no less than annually, to ensure implementation of best management practices for energy efficient management of servers and Federal data centers

The bullets below are the sub-goals for electronic stewardship and managing data centers. Section C, (Implementation Methods) describes detailed actions OPM will take to accomplish each sub-goal.

#### Electronic Stewardship & Data Centers Sub-Goals

- A. Identify how the agency intends to meet technology energy consumption reduction goals in its data centers
- B. Establish and implement policy and guidance to ensure use of power management, duplex printing, and other energy efficient or environmentally preferred options and features on all eligible agency electronic products.
- C. Update agency policy to reflect environmentally sound practices for disposition of all agency excess or surplus electronic products.
- D. Update agency policy to ensure implementation of best management practices for energy efficient management of servers and Federal data centers.

### B. AGENCY LEAD FOR GOAL

The Senior Sustainability Officer will carry out the mandates related to meeting technology energy consumption reduction goals in its data centers.

The Office of the Chief Information Officer (OCIO) will be the primary party responsible for implementing the objectives discussed under Goal 9: Electronic Stewardship and Datacenters. Other divisions will become an equal responsible partner where applicable. Examples of such partnerships include facilities in the areas of disposal of electronic equipment and contracting in the areas of procuring EPEAT and Energy Star electronics.

### C. IMPLEMENTATION METHODS

Schedule: OPM will revise existing policy to reflect EOs 13423 and 13514 mandates regarding data centers by end of FY 2010.

Where current equipment is capable of greater energy efficiencies, establishing and implementing sustainability policies will require minimal cost. In addition, OPM expects a cost savings in many cases due to enforcement of such policies covering power management, duplex printing, and other energy efficient or environmentally preferred options and features on all eligible agency electronic products. When new information technology (IT) equipment is purchased for refresh and other purposes (i.e., through Capital Planning Investment Control and other procurement processes), the new IT equipment will be held to “green” standards (examples include, but are not limited to Energy Star and EPEAT). Capital costs may be required to implement systems to reduce GHG emissions, but the expectation is that these costs will be recuperated over the life of the system.

Implementing data center and server best practices may require greater capital investment. These activities may be financed through alternative financing which will help finance energy efficient products. Appropriations may be requested as needed.

OPM’s IT Strategic Plan states that the OCIO will address any technology initiatives that arise related to Presidential initiatives, such as EO 13514<sup>47</sup>. In addition, OCIO has committed to implementing innovative practices, such as green IT and cloud computing, to ensure the successful modernization of OPM’s IT solutions and infrastructure.

The use of electronics requires energy, which is most often generated through processes that emit GHGs. Electronics contain heavy metals that, if not managed properly, can be harmful to human health and the environment. By managing electronics to extend their life and ensuring that electronics are properly disposed OPM can further prevent pollution. Purchasing electronics that are more energy efficient or that contain fewer hazardous substances will help OPM meet its sustainable acquisition goals.

## EP ELECTRONICS MANAGEMENT

Making EP electronics purchases and implementing smart management practices can greatly reduce the environmental impact of electronics. In its IT Strategic Plan, OPM has committed to implementing green IT practices such as enabling green settings on 50% of IT equipment in 2010 and 100% of equipment thereafter. Specific actions for EP electronics management are listed below in Table 9-2.

**Table 9-1: EP Electronics Management Actions**

Concept	Actions
Update Electronic Stewardship Policy	Review and incorporate EO 13514 requirements into the existing electronics stewardship policy.
	Review policy on electronics life cycle to identify opportunities for using equipment beyond five years.
	Promote electronic alternatives to printing and enable the duplex printing feature for printing/copying (Cross references with Table 7-5).
	Develop a procedure to phase out non-EPEAT-registered products as they get old or when new renovations are made (incorporate into the APP).

	Identify products used by OPM that are available in Energy Star certified varieties.
Purchase Energy Star <sup>48</sup> electronics	Track the purchase of Energy Star certified products.
	Identify equipment used by OPM that has energy saving and resource saving features (such as duplex printing).
Enable energy & resource saving features on 100% of applicable workstations and monitors	Develop instructions for enabling energy and resource saving features.
	Train staff or provide written guidance on enabling instructions.
	Research printers and copiers with duplex capabilities & ensure all new purchases of these products are adequately equipped.
Update electronics procurement process	Work with Contracting to update the APP and include strategies to exceed the existing baseline of purchasing 95% EPEAT-registered electronics.

**\*Notes:**

- OPM IT has committed to ensuring that 50% of IT equipment is green certified in 2010, 75% in 2011, 90% in 2012, and 95% in 2013.
- OPM has committed to improving its power usage efficiency to be 1.94 in 2010, 1.8 in 2011, 1.7 in 2012, and 1.6 in 2013.

## RESPONSIBLE ELECTRONICS DISPOSAL

If functional, electronics should be reused, donated, or sold before considering disposal. When complete diversion from the waste stream is not possible, electronics should be sent to an R2 to ensure that harmful constituents and recyclable pieces are removed and only true waste parts are disposed. Specific actions for responsible electronics disposal are listed below in Table 9-3.

**Table 9-2: Responsible Electronics Disposal Actions**

Concept	Actions
Review and update End-of-Life policy	Review the existing Electronics End-of-Life policy.
	Review and incorporate EO 13514 requirements into the policy.
	Develop a standard operating procedure describing proper recycling and disposal actions.
	Communicate policy revisions and standard operating procedures to staff via memo or training.
Prepare equipment for disposal	Remove sensitive data from electronic equipment.
	Determine if equipment is usable.
Reuse equipment internally	Post equipment details on a centralized web-based program for OPM employees to share products (See Goal 7).
	Develop and provide a disclaimer indicating that the new owner of the equipment must dispose of it using an R2 when the time comes.
	Keep a record (in the form of a receipt or other statement) of the transfer of ownership to track the equipment's diversion from the waste stream.
Give equipment to another Federal	Prepare a report of Excess Property and submit to GSAXcess. <sup>49</sup>
	Keep a record (in the form of a receipt or other statement) of the

agency	donation to track the equipment's diversion from the waste stream.
Donate equipment	Donate usable computers and related peripheral equipment to GSA's CFL Program. <sup>50</sup>
	Research local charities and non-profit organizations that may need the equipment and donate if possible.
	Develop and provide a disclaimer indicating that the new owner of the equipment must dispose of it using an R2 when the time comes.
	Keep a record (in the form of a receipt or other statement) of the donation to track the equipment's diversion from the waste stream.
Sell equipment	Research appropriate sources to post unneeded equipment for sale and post.
	Develop and provide a disclaimer indicating that the new owner of the equipment must dispose of it using an R2 when the time comes.
	Keep a record (in the form of a receipt or other statement) of the donation to track the equipment's diversion from the waste stream.
Recycle equipment	Look up which Unicom <sup>51</sup> recycling facility is closest to the office that needs to recycle equipment.
	Complete and submit Unicom's vendor registration package.
	Package and ship equipment according to Unicom's website.
	Keep a record (in the form of a receipt or other statement) of the transfer of materials to track the equipment's diversion from the waste stream.

## ELECTRONICS AND DATA CENTER BEST MANAGEMENT PRACTICES

Using electronic equipment such as computers can greatly increase the operational efficiency of an agency by allowing for quick communication and file creation, among other benefits. Efficiency can be increased even more if electronics are configured for optimal energy use and if staff are trained to shut down equipment when not in use. Specific actions for electronics and data center best management practices are listed below in Table 9-4.

**Table 9-3: Electronics and Data Center Best Management Practices Actions**

Concept	Actions
Review and update policies to include data center best management practices	Identify OPM plans and policies relevant to electronics management.
	Review and update the Electronic Stewardship policy.
	Review commitments set forth in the IT Strategic Plan.
Increase energy efficiency of servers	Review energy bills for the past year to establish an estimated baseline of usage related to servers.
	Review cooling systems and research opportunities to enclose servers in hot aisles in order to concentrate cooling directly onto the racks.
	Review redundancy requirements and streamline use where possible.
	Research and purchase high-efficiency power supplies for servers (ideally 80% or higher efficiency power supplies).
	Identify underused servers and consolidate multiple physical servers into virtualized servers.
	Research energy efficient appliances, such as cooling systems, to reduce energy use where Energy Star products are not available.

Reduce GHG emissions	Research the feasibility of using alternative clean power sources such as photovoltaic systems, wind energy, and geothermal for data centers.
	Review current contracts with energy providers to maximize use of renewable energy (e.g., wind, solar, geothermal).
	Allow employees to telework.

#### D. POSITIONS

Please refer back to Section 1 Part IV for a discussion of OPM's staffing needs.

#### E. PLANNING TABLE

In recent years, OPM has encountered issues that, unless addressed, will be detrimental to the agency over time. For example, key infrastructure (e.g., hardware and software tools) is aging and in need of modernization. Necessary funding to accommodate a refresh of technology, equipment, and staffing is severely lacking, delaying the required modernization of the agency's IT infrastructure. Several mandates and requirements remain unfunded. Although OCIO continues to effectively manage its IT spending, issues of adequate funding remain in the forefront of OCIO priorities; it is hoped that these will be resolved expeditiously. Table 9-5 below is designed to show quantitative targets to achieve the targets outlined in this plan.

**Table 9-4: Electronic Stewardship & Data Center Planning Table**

TARGETS AND FINANCIAL RESOURCES	Units	FY 11	FY 12	...	FY 20
% of device types covered by current Energy Star specifications that must be energy-star qualified	%	95	100	...	100
% of electronic assets covered by sound disposition practices	%	95	95	...	99
% of cloud activity hosted in a data center	%	99	99	...	99
% of agency data centers independently metered or advanced metered and monitored on a weekly basis	%	10	25	...	100
Reduction in the number of agency data centers	%	0	10	...	70
% of agency, eligible electronic products with power management and other energy-environmentally preferable features (duplexing) actively implemented and in use	%	95	100	...	100
% of agency data centers operating with an average CPU utilization of 60-70%	%	5	15	...	75
% of agency data centers operating at a PUE range of 1.3-1.6	%	25	50	...	75
% of covered electronic product acquisitions that are EPEAT-registered	%	95	95	...	100
% of agency data center activity implemented via virtualization	%	5	15	...	90
Other, as defined by agency: Renewable energy source feeding data centers	%	?	?	...	100

#### F. AGENCY STATUS

In the year ahead, OPM will work to institutionalize electronic stewardship and green data center management throughout the agency. OPM will document the successes and challenges encountered while trying to create a culture of sustainability within the OPM OCIO.



## **GOAL 10: AGENCY INNOVATION**

### **A. GOAL DESCRIPTION**

OPM Director John Berry has encouraged innovation and creativity when designing OPM's strategy to meet EO 13514 sustainability goals. OPM intends to use its unique mission and position to investigate non-traditional personnel policies to incentivize Federal employees to conserve resources and reduce GHG emissions.

OPM will approach agency innovation through several different avenues. First, OPM is experimenting directly with sustainability-supporting personnel policies within the agency. For example, OPM is investigating new flexible work initiatives to reduce the number of commuting trips taken by employees. Second, OPM is executing cross-agency sustainability initiatives that have natural synergies with other internal initiatives such as health and wellness. Finally, the OPM Green Team is researching behavior-oriented sustainability initiatives that can be implemented to create a culture of sustainability throughout the agency.

### **B. AGENCY LEAD FOR GOAL**

The Office of the Director will be responsible for developing and implementing new personnel policies and connecting these initiatives to sustainability to support Goal 10.

### **C. IMPLEMENTATION METHODS**

OPM is currently experimenting with personnel policies to support the achievement of EO 13514 sustainability goals. This year, OPM is implementing an initiative called Results-Only Work Environment (ROWE) for approximately 400 employees. This program is designed to focus managers and employees on results rather than procedure and process. This management strategy has the potential to greatly reduce employee commute GHG emissions and improve the quality of life for OPM employees. While traditional teleworking programs allow employees to work from home on pre-defined days, ROWE provides even greater flexibility by focusing on results. For example, an OPM employee who knows what is expected of him or her by a certain deadline could work an alternative work schedule one week, telework on Tuesday and Wednesday the next week, and telework Thursday and Friday of the following week to produce the desired result while better managing personal and family responsibilities. OPM understands the need for a better work-life balance, and ROWE provides a better balance by allowing employees to focus on results and set their own work schedule. While trying this experiment, OPM plans to study its impact on employee effectiveness, the use of technology that enhances work-from-anywhere capabilities, and the reduction in GHG emissions.

In addition, OPM is pursuing a government-wide expansion of the use of telework. OPM has established a high priority performance goal to increase by 50% the number of employees who telework at least one day per week on average by the end of FY 2011. To do this, OPM has asked agencies to establish a clear agency telework policy based on a best practices checklist. Each agency has also been asked to designate a manager to establish telework goals and to apply the telework policy uniformly. Another step in the initiative is the creation of a clear appeals process. Finally, agencies are asked to systematically track and report on numbers and trends in telework within their agency. An interagency group has been collaborating since summer 2009 on ways to strengthen, broaden and deepen the telework programs of the Federal government. Later this year, that panel will release a final report and call for executive action on the use of telework and other workplace flexibilities to improve delivery of government services and ensure continuity of operations.

Also, OPM is executing cross-agency and cross-program sustainability initiatives. As one example, OPM is currently collaborating with GSA and the Department of the Interior (DOI), two agencies located in close proximity to OPM headquarters, on a Federal Campus initiative to build a sense of community within these agencies. As one initiative, the group is organizing a shared farmer's market in the OPM plaza, and is also investigating the potential for community gardens. In addition, this initiative overlaps with OPM's existing health and wellness program and creates opportunities for OPM staff to benefit personally from sustainability initiatives.

Finally, OPM acknowledges the need for a greater culture of sustainability throughout the organization. The Green Team is currently reviewing behavioral research, Federal employee telework surveys, and other data to determine how to communicate sustainability initiatives throughout the organization to ensure all employees know about the Strategic Sustainability Performance Plan goals and feel they are able to participate in the process.

OPM is currently developing metrics to measure the progress of agency innovation initiatives. First, for the ROWE pilot program, OPM is discussing the way we will measure employee productivity, morale, commuter miles reduced, and overall success of the program. The ROWE team will work with the OPM Green Team to understand ROWE's impact on OPM's Scope 3 GHG emissions. Second, OPM will track the number of cross-agency or cross-program events with greater than 50 attendees in which sustainability goals have been included. For example, a mid-week farmer's market that attracts more than 50 attendees will be counted as one event. Finally, OPM is developing a plan for tracking employee awareness of sustainability initiatives as part of the annual employee commute survey. We will use these results to determine our effectiveness of Strategic Sustainability Performance Plan training and internal outreach efforts.

At this time, OPM does not anticipate these initiatives will require additional funding since they have been designed to integrate with existing programs. However, if the ROWE program is expanded beyond 400 employees, the ROWE team anticipates additional funding and resources will be necessary. The ROWE team will develop these estimates after the 400-person pilot project has concluded.

#### D. POSITIONS

The OPM Green Team is currently leading all agency innovation initiatives, and no further staffing needs are anticipated at this time.

#### E. PLANNING TABLE

**Table 10-1: Agency Innovation Planning Table**

AGENCY INNOVATION	Units	FY 10	FY 11	FY 12	....	FY 20
Number of cross-agency or cross-program events with greater than 50 attendees.	#	3	5	Hold		Hold
Employee awareness of Strategic Sustainability Performance Plan goals	%	10	25	33		90

#### F. AGENCY STATUS

In the year ahead, OPM will continue the implementation of the ROWE program and develop an executive summary of lessons learned that can be shared with other Federal agencies. At the end of the

year, OPM's Green Team can share information about its joint sustainability initiatives with GSA and DOI as well as the successes and challenges encountered while trying to create a culture of sustainability.

# SECTION 3 – AGENCY SELF EVALUATION

## I. 2010 QUESTIONS

**Table B: 2010 CEQ Agency Sustainability Questions**

Question	Yes/No
Does your plan provide/consider overarching strategies and approaches for achieving long-term sustainability goals?	Yes
Does your plan identify milestones and resources needed for implementation?	Yes
Does your plan align with your agency's 2011 budget submission?	Yes
Is your plan consistent with your agency's FY 2011 budget and appropriately aligned to reflect your agency's planned FY 2012 budget submission?	Yes
Does your plan integrate existing EO and statutory requirements into a single framework and align with other existing mission and management related goals to make the best use of available resources?	Yes
Does your plan provide methods for obtaining data needed to measure progress, evaluate results, and improve performance?	Yes

## II. NARRATIVE

OPM is excited to present our first Strategic Sustainability Performance Plan to CEQ and OMB. We believe this is the first step to creating a sustainable culture within OPM and the entire Federal government.

Starting in July, 2010, OPM will be completing the following tasks within each goal:

- Goal 1** – Begin implementing ARRA-funded projects for the Theodore Roosevelt Building.
- Goal 2** – Improve collection of employee travel data.
- Goal 3** – Improve quantification of Scope 1, 2 and 3 GHG emissions and look to add more Scope 3 emissions to the OPM inventory.
- Goal 4** – Work with GSA to implement sustainability initiatives at OPM's leased facilities.
- Goal 5** – Develop internal policies requiring all newly leased facilities be located in existing central cities or town centers, accessible to public transportation, located near existing employment centers, and/or pedestrian friendly.
- Goal 6** – Reduce potable water use through installation of low-flow fixtures from ARRA funding.
- Goal 7** – Initiate composting program for cafeteria waste.
- Goal 8** – Develop procedure for tracking sustainable acquisition percentages for each type of product required by EO 13514.
- Goal 9** – Implement energy saving equipment and initiatives throughout the agency.
- Goal 10** – Implement the Results-Orientated Work Environment (ROWE) program for Federal employee telecommuting and work with GSA and DOI on a campus food sharing program by improving garden areas for employees and starting a farmer's market.

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<sup>1</sup> EPA Act

<sup>2</sup> Agencies that have a Compliance Management Plan rather than an EMS should modify the table accordingly.

<sup>3</sup> Sustainable Building Implementation Plans, Sustainable Procurement (also known as Green or Affirmative Procurement, or Green Purchasing), Electronic Stewardship Plans, Chemical Reduction Plans, Pollution Prevention Plans, Compliance Management Plans, etc.

<sup>4</sup> In fleet vehicles.

<sup>5</sup> OPM has addressed the challenges with this goal in the narrative titled “Fleet: Reduce Petroleum Use and Optimize Fleet”

<sup>6</sup> The increased percentage of alternative fuel use is relative to the FY 2005 baseline.

<sup>7</sup> GHG emissions are measured in mtCO<sub>2</sub>e and the percentage reductions are reductions in mtCO<sub>2</sub>e

<sup>8</sup> GHG emissions are measured in mtCO<sub>2</sub>e and the percentage reductions are reductions in mtCO<sub>2</sub>e.

<sup>9</sup> Refer to the OFEE Scope 3 GHG Emissions Reduction Target Tool and User’s Manual for detailed descriptions of each scope 3 categories and calculation methods. When writing narrative for this goal area, please note that it is not necessary to provide a great deal of detail. Agencies should focus on general strategy for reducing Scope 3 emissions and should plan to provide greater detail on milestones and actions taken to reduce emissions associated with agency-specific targets in subsequent updates to this plan.

<sup>10</sup> EPA Green Building: <http://www.epa.gov/greenbuilding/index.htm>; US Green Building Council: <http://www.usgbc.org/DisplayPage.aspx?CategoryID=19>

<sup>11</sup> US DOT, Regional Concept for Transportation Operations: [http://www.plan4operations.dot.gov/reg\\_concept.htm](http://www.plan4operations.dot.gov/reg_concept.htm)

<sup>12</sup> Example - NH Carbon Coalition: <http://www.carboncoalition.org/community/EnergyCommitteesResources.php>

<sup>13</sup> EPA Water Efficiency Guidance for Federal Agencies: [http://www.epa.gov/WaterSense/water\\_efficiency/federal\\_agencies.html](http://www.epa.gov/WaterSense/water_efficiency/federal_agencies.html)

<sup>14</sup> EPA BMPs to design, implement, and evaluate water conservation efforts: [http://www.epa.gov/oaintnrt/water/best\\_practices.htm](http://www.epa.gov/oaintnrt/water/best_practices.htm)

<sup>15</sup> Toilet Retrofit Devices: [http://www.allianceforwaterefficiency.org/Toilet\\_Retrofit\\_Devices.aspx](http://www.allianceforwaterefficiency.org/Toilet_Retrofit_Devices.aspx)

<sup>16</sup> Certified Green Commercial Kitchen: <http://cgck.org/>

<sup>17</sup> Alliance for Water Efficiency Landscape and Irrigation Resources: [http://www.allianceforwaterefficiency.org/Landscape\\_and\\_Irrigation\\_Introduction.aspx](http://www.allianceforwaterefficiency.org/Landscape_and_Irrigation_Introduction.aspx)

<sup>18</sup> H2ouse Water Conserving Garden Guide: <http://www.h2ouse.org/gardensoft/index.aspx>

<sup>19</sup> HarvestH2O.com Rainwater Harvesting: <http://www.harvesth2o.com/resources.shtml>

<sup>20</sup> FEMP Single-Pass Cooling Equipment BMPs: [http://www1.eere.energy.gov/femp/program/waterefficiency\\_bmp9.html](http://www1.eere.energy.gov/femp/program/waterefficiency_bmp9.html)

<sup>21</sup> Technical Guidance for Implementing the Stormwater Runoff Requirements for Federal Projects under Section 438 of the EISA: [http://www.epa.gov/owow/NPS/lid/section438/pdf/final\\_sec438\\_eisa.pdf](http://www.epa.gov/owow/NPS/lid/section438/pdf/final_sec438_eisa.pdf)

<sup>22</sup> EPA’s Green Infrastructure Applications: <http://cfpub.epa.gov/npdes/greeninfrastructure/technology.cfm>

<sup>23</sup> EPA’s Green Infrastructure Partnership: <http://cfpub.epa.gov/npdes/greeninfrastructure/gisupport.cfm>

<sup>24</sup> EPA’s Reduce, Reuse, Recycle: <http://www.epa.gov/osw/conserve/rrr/reduce.htm>

<sup>25</sup> EPA’s Non-Hazardous Waste: <http://www.epa.gov/osw/nonhaz/index.htm>

<sup>26</sup> EPA’s Construction & Demolition Materials: <http://www.epa.gov/osw/conserve/rrr/imr/cdm/index.htm>

<sup>27</sup> EPA’s WasteWise Program: <http://www.epa.gov/osw/partnerships/wastewise/challenge/building.htm>

<sup>28</sup> EPA’s Deconstruction and Reuse: <http://www.epa.gov/osw/conserve/rrr/imr/cdm/reuse.htm>

<sup>29</sup> Construction Materials Recycling Association: <http://www.cdrecycling.org/>

<sup>30</sup> EPA’s Paper Recycling: <http://www.epa.gov/osw/conserve/materials/paper/index.htm>

<sup>31</sup> EPA’s Comprehensive Procurement Guidelines: <http://www.epa.gov/wastes/conserve/tools/cpg/index.htm>

<sup>32</sup> OSHA’s HAZCOM Program: <http://www.osha.gov/dsg/hazcom/index.html>

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- <sup>33</sup> SIRI MSDS Index: <http://hazard.com/msds/>
- <sup>34</sup> EPA's Composting: <http://www.epa.gov/waste/conserve/rrr/composting/index.htm>
- <sup>35</sup> EPA's Integrated Pest Management Principles: <http://www.epa.gov/pesticides/factsheets/ipm.htm>
- <sup>36</sup> EPCRA Requirements: <http://www.epa.gov/oem/content/epcra/index.htm>
- <sup>37</sup> EPCRA Requirements: [http://www.epa.gov/oem/content/epcra/epcra\\_storage.htm#tier2](http://www.epa.gov/oem/content/epcra/epcra_storage.htm#tier2)
- <sup>38</sup> EPA's Toxic Release Inventory Program: <http://www.epa.gov/tri/index.htm>
- <sup>39</sup> EPA's Environmentally Preferable Purchasing: <http://www.epa.gov/opptintr/epp/index.htm>
- <sup>40</sup> Energy Star: <http://www.energystar.gov/>
- <sup>41</sup> FEMP: <http://www1.eere.energy.gov/femp/>
- <sup>42</sup> EPA's WaterSense Program: <http://www.epa.gov/watersense/index.html>
- <sup>43</sup> USDA BioPreferred Program: <http://www.biopreferred.gov/?SMSESSION=NO>
- <sup>44</sup> EPA's Comprehensive Procurement Guidelines: <http://www.epa.gov/wastes/conserve/tools/cpg/index.htm>
- <sup>45</sup> EPA's Significant New Alternative Policy Program: <http://www.epa.gov/ozone/snap/>
- <sup>46</sup> OPM has one, centrally managed, logical datacenter with equipment in several locations to support the mission and DR. Locations include Theodore Roosevelt Building (i.e., BH12, BH04, SB330, SB347, OIG's closet, etc), Macon (two server facilities), Ft. Meade (one server facility), and Boyers (two server facilities).
- <sup>47</sup> [http://www.opm.gov/about\\_opm/reports/OPM\\_IT\\_Strategic\\_Plan\\_FY10-13.pdf](http://www.opm.gov/about_opm/reports/OPM_IT_Strategic_Plan_FY10-13.pdf)
- <sup>48</sup> Energy Star: <http://www.energystar.gov/>
- <sup>49</sup> GSAXcess: <http://gsaxcess.gov/>
- <sup>50</sup> GSA Computers for Learning: <http://computersforlearning.gov/>
- <sup>51</sup> Unicor: <http://www.unicor.gov/?navlocation=Recycling>