



# **FY 2011 Strategic Sustainability Performance Plan For the Railroad Retirement Board**

844 N. Rush St.  
Chicago IL 60611



## Section 1: Agency Policy and Strategy

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### I. Agency Policy Statement

The Railroad Retirement Board (RRB) is an independent agency in the executive branch of the Federal Government. The RRB's primary function is to administer comprehensive retirement-survivor and unemployment-sickness benefit programs for the nation's railroad workers and their families under the Railroad Retirement and Railroad Unemployment Insurance Acts.

We are committed to reducing energy consumption and establishing policies that will ensure our compliance with all environmental and energy statutes, regulations, and executive orders and meet required energy reduction goals. These goals are established by Executive Orders 13514, 13423, and 13327, and the National Energy Conservation Act and Energy Policy Act of 2005 (NECA/EPACT).

Our headquarters is located in the William O. Lipinski Federal Building, a thirteen-story, 365,000 square-foot, historic building on North Rush Street in Chicago, Illinois. RRB occupies floors two-through eleven of the Lipinski Federal Building, with commercial tenants on floor one and office space for a separate federal agency on floor twelve. The agency's 53 field offices are either co-located with other federal agencies in office buildings managed by GSA or in other space that GSA leases. Approximately 900 employees work for the RRB, including about 250 in the agency's 53 field offices.

The headquarters building is the only facility over which the RRB has operational control. As the primary tenant, the RRB operates and maintains the building through a delegation of authority agreement with the General Services Administration (GSA) established on April 1, 1986. Under this agreement, projects over \$50,000 in value and any capital improvements are funded and approved by GSA.

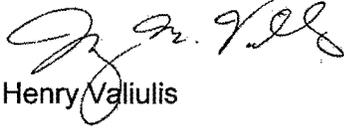
During this fiscal year (FY) we will continue to work with GSA in establishing energy-saving projects that will enhance the agency's mission and provide necessary energy reductions for the headquarters facility. For example, GSA awarded \$2 million to completely renovate the first floor lobby of the RRB facility. This lobby upgrade included new entrances, doors, ceilings, wall treatments, and floor treatments. An energy efficient lighting control system replaced lighting in the main lobby and the elevator lobbies on the remaining floors. The project also included a new heating, ventilating, and air-conditioning (HVAC) system for the main lobby.

Other important projects and investments planned for FY 2011 are highlighted in the following:

- The RRB intends to reduce water consumption throughout the Lipinski building. We will continue a program to replace 3 gallon-per-flush toilets with 1.25 gallon-per-flush toilets and automatic flush valves. In addition, RRB retrofitted the hot water recirculating system on four floors of the headquarters building to significantly reduce water usage associated with waiting for hot water at faucets. This project will be expanded to an additional three floors in FY 2011.

- A comprehensive energy and water audit was completed at the headquarters building in October 2010. This audit provided a complete life cycle cost analysis on various energy projects utilizing building energy simulation modeling. RRB is working with the GSA to identify priority projects to implement at the headquarters building in order to meet energy reduction goals.

This Strategic Sustainability Performance Plan (SSPP) demonstrates RRB's commitment to meeting all the energy goals established by this SSPP. RRB will continue in its efforts to meet or exceed the goals established for 2020.



Henry Valiulis

Senior Sustainability Officer, RRB

Chicago, Illinois

## **I. Agency Policy Statement (optional image)**

## **II. Sustainability and the Agency Mission**

The mission of the RRB is to accurately and efficiently administer retirement benefits and unemployment-sickness benefits to railroad employees and their families throughout the United States of America. In order to provide these services as efficiently and as cost effectively as possible, the RRB has made a commitment to sustainability.

By meeting our planned sustainability goals, we will also reduce our energy costs and thus reduce the operating costs for meeting our mission goals. In addition, meeting these sustainability goals will serve to improve the safety and working environment of the agency workforce. Moving towards these goals will help to increase RRB's efficiency and productivity and to further enhance RRB's high quality work serving the Federal Government.

The RRB has made several enhancements to management practices designed to improve agency operations and service to customers, but which also further its sustainability goals:

\* Enhanced telephone-based customer service has reduced the need for customer trips to both headquarters and field offices, thereby cutting greenhouse gas (GHG) emissions. In 2008 and 2009, the RRB completed implementation of a nationwide toll-free telephone service that enables dynamic routing of phone calls from one field office to another. This service enhances the agency's ability to balance workloads and route calls to representatives who can respond in the most timely, effective manner.

\* Expanded document imaging practices, electronic funds transfer (EFT) payments and internet functionality at both headquarters and field offices have decreased use of paper and mail, thereby conserving natural resources and reducing GHG emissions.

- Document imaging enables agency offices to quickly access documents processed in those offices. The imaging network also supports the agency's nationwide toll-free telephone service by providing documents online so staff in any office can access them promptly, respond to telephone inquiries, and provide better customer service. Although electricity use increased for document imaging technology, fewer documents are mailed among RRB offices, reducing GHG emissions.

- The RRB released an update of the RRB Employer Reporting Program on CD-ROM in January 2008, including the forms commonly used by employers to report service and compensation in an expanded format. The program also includes encryption and electronic transmittal capability. Beginning in 2009, employers have an option to log into a secure area of the Board's Web site and download the program instead of receiving an update via CD-ROM in the mail, which eliminates the time and cost associated with distributing the program on hard media for those who select that option.

- The RRB has implemented an EFT system that is used in 90 percent of payments to annuitants, and the percentage continues to grow. This means that fewer paper checks are printed and mailed, resulting in environmental benefits and energy savings. Additionally, RRB beneficiaries take fewer trips to financial institutions when they use electronic funds transfer.

\* Increased use of teleconferencing and web-based training have decreased travel requirements, thereby using time more effectively and reducing the environmental impacts of traveling .

- Appeals referees hold hearings by teleconference whenever possible. This measure reduces attorney travel significantly. The other party in the litigation can participate in the hearings at a local location, reducing their need to travel far from their base location.
- A web-based training tool, RRB Vision, enables employees to receive training at their home office.

The implementation of the above measures has resulted in a net decrease in GHG emissions and an increase in efficiencies of the Agency. However, the success of these measures in reducing emissions is dependent upon functioning technologies. In FY 2010 and 2011, the vulnerabilities of RRB’s reliance on video conferencing to reduce GHG emissions associated with employee business travel were revealed. From June to December 2010, RRB experienced issues with malfunctioning videoconferencing equipment which resulted in increased air and ground business travel for hearings and thus increased GHG emissions in these Scope 3 categories.

Video-conferencing was reinstated in the first half of 2011 and from January through May 2011, 24 of 54 hearing were conducted by video conference. However, due to the termination of the contract with the current provider, starting in June 2011 RRB will again be required to travel for hearings instead of video-conferencing until a different service provider can be contracted.

The following is a summary table that describes the RRB’s size and scope of operations.

It should be noted that the FY2008 Scope 3 baseline listed in the table below did not include emissions from federal employee commuting. A commuter survey was conducted in 2010 and the total Scope 3 emissions were calculated to be 2,676 MT CO2e.

**Size and Scope of Operations**

Size and Scope of Operations	Number	Com-ment
Total # Employees	900	
Total Acres Land Managed	1	
Total # Facilities Owned	0	
Total # Facilities Leased (GSA lease)	56	
Total # Facilities Leased (Non-GSA)	0	
Total Facility Gross Square Feet (GSF)	365000	
Operates in # of Locations throughout U.S.	56	
Operates in # of Locations outside of U.S.	0	
Total # Fleet Vehicles Owned	0	

<b>Size and Scope of Operations</b>	<b>Number</b>	<b>Comment</b>
Total # Fleet Vehicles Leased	0	
Total # Exempted-Fleet Vehicles (Tactical, Emergency, etc.)	0	
Total Operating Budget FY 2010 (\$MIL)	109	
Total # Contracts Awarded FY 2010	453	
Total Amount Contracts Awarded FY 2010 (\$MIL)	12.96	
Total Amount Spent on Energy Consumption FY 2010 (\$MIL)	.544444160	
Total BTU Consumed per GSF	83.826	
Total Gallons of Water Consumed per GSF	12.6	
Total Scope 1 & 2 GHG Emissions (Comprehensive) FY 2008 Baseline MMTCO <sub>2e</sub>	4100	
Total Scope 1 & 2 GHG Emissions (Subject to Agency Scope 1 & 2 Reduction Target) FY 2008 Baseline MMTCO <sub>2e</sub>	4100	
Total Scope 3 GHG Emissions (Comprehensive) FY 2008 Baseline MMTCO <sub>2e</sub>	542	
Total Scope 3 GHG Emissions (Subject to Agency Scope 3 Reduction Target) FY 2008 Baseline MMTCO <sub>2e</sub>	542	

## **II. Sustainability and the Agency Mission (optional image)**

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

As requested by Executive Order (EO) 13514, the RRB submitted the Scope 1 and 2 GHG reduction targets to the Office of the Environmental Executive on December 23, 2009. These targets were derived using the Development of Agency Reduction Targets (DART) tool. The RRB developed a total emissions baseline for Scope 1 and 2 GHG in FY 2008 of 4,100 metric tons (MT) of carbon dioxide equivalent (CO<sub>2e</sub>) (this is the revised number as submitted in the FY 2008 Sustainability Data Report to the CEQ in January 2011). The agency's planned FY 2020 percentage reduction target from the current FY 2008 baseline is 27.2 percent. RRB had a total emissions baseline for Scope 3 GHG emissions in FY 2008 of 542 MTCO<sub>2e</sub>; this number however did not include emissions from federal employee commuting. The RRB conducted a RRB commuter survey in 2010 and revised the Scope 3 GHG emissions baseline in FY 2010 to be 2,676 MTCO<sub>2e</sub>. The agency's planned FY2020 percentage reduction target for Scope 3 emissions from the revised FY 2010 baseline is 6.2 percent.

The overall plan for achieving GHG reduction goals depends on the following actions.

- \* Identifying and implementing energy-savings measures and technologies at the headquarters building
- \* Increasing the percent of renewable energy based purchased electricity used at the headquarters building
- \* Expanding RRB's work-at-home program, when possible
- \* Increasing teleconferencing thereby reducing business travel
- \* Increasing electronic services thereby reducing 700,000 beneficiaries' need to travel to financial institutions and field offices.

The RRB through GSA secured \$2 million in funding for the elevator lobby renovation project through the American Recovery and Reinvestment Act of 2009 (ARRA). The impacts of the elevator lobby renovation on RRB sustainability goals are not currently known as the project will be completed in June 2011. However, it is expected that not only will the project assist RRB in reducing energy consumption immediately following its completion, but the associated digital control system wiring installed throughout the center of the building presents a future opportunity for RRB to expand the digital automated lighting interface (DALI) system throughout each floor to significantly decrease energy consumption from lighting.

### **III. Greenhouse Gas Reduction Goals (optional image)**

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

##### **a. Internal Coordination and Communication**

The Director of Administration/Senior Executive Officer, who is stationed at the RRB Chicago headquarters, serves as the Senior Sustainability Officer (SSO) for RRB. The SSO is responsible for administering RRB's initiatives described in this Strategic Sustainability Performance Plan (SSPP) and ensuring that all aspects of EO 13514 and other applicable executive orders and statutes are effectively implemented.

The Facility Manager is assigned the responsibility for carrying out building operations- and maintenance-related measures. The Chief Information Officer will assist in implementing information technology-related measures.

The Chief of Acquisition Management will engage in implementing acquisition-related measures. Electronics disposal-related measures are the purview of the Communications and Property Manager.

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

The RRB will distribute the plan to all field offices as well as the headquarters facility by posting the plan on the agency intranet web site.

##### **c. Leadership and Accountability**

Presently, the SSO and the Facility Manager must meet performance standards that require the successful implementation of provisions in EO 13514 and its associated EOs. The successful implementation of this plan directly impacts their performance evaluations.

#### d. Agency Policy and Planning Integration

The following RRB planning and policy documents relate to sustainability. Of these documents, Administrative Circular OA-14 and Basic Board Order (B.B.O.) 5 are being updated to reflect the requirements of EO 13514. The other policies sufficiently address the requirements of this EO.

##### Administrative Circular RRB-1 Energy Conservation (December 4, 2007)

Administrative Circular RRB-1 describes the agency's responsibilities for ensuring that appropriate efforts are made to conserve energy at the RRB headquarters building and field offices. The circular also addresses awareness of energy conservation among employees and policies and procedures for motor vehicle fuel conservation.

##### Administrative Circular OA-14 Procurement of Goods and Services (October 1, 2009)

Administrative Circular OA-14 summarizes the RRB's processes, procedures, and requirements for requesting and completing the procurement of goods or services. The requirements include provisions for giving favorable consideration to environmentally sound practices and environmentally friendly products as an evaluation factor in the procurement of goods or services.

##### Administrative Circular IRM-17 Headquarters Printing Policy (February 16, 2010)

Administrative Circular OA-14 addresses the economically efficient and environmentally sound use of printers and printing consumables by the RRB headquarters.

##### B.B.O. 5 – Procurement, Property, Supplies, and Service (July 9, 2008)

This policy addresses contracting with private sources for procurement of supplies and services. Section 2 incorporates an energy conservation program that is applicable to headquarters and the field offices. The program is intended to bring about reductions in the use of energy in all RRB operations, particularly in the areas of heating, ventilation, air conditioning, lighting, and motor vehicle fuel consumption.

##### Administrative Circular BSS-2 Tracking, Maintenance, and Disposal of Agency Accountable Property (June 5, 2003)

Administrative Circular BSS-2 describes the agency's use of the Computers for Learning program to dispose of surplus or excess computer equipment.

#### e. Agency Budget and Policy Integration

This section addresses GHG and energy consumption-reducing projects for the headquarters building. As mentioned above the balance of the RRB operations are conducted at 53 field offices, over which GSA or another lessor has operational control.

For the RRB headquarters building, the RRB allocates \$30,000 annually from the operations and maintenance budget for energy savings projects and does not directly receive funds for implementing capital improvements. Many of the energy savings projects implemented with the operations and maintenance budget tie into the agency SSPP because they improve the efficiency of building systems and reduce water and energy consumption.

The RRB will integrate this SSPP into its building operations and maintenance budget planning. The implementation measures described in the SSPP will be prioritized along with other necessary projects in terms of their return on investment (ROI), taking into account environmental and social factors on a qualitative basis in addition to standard economic factors.

The RRB will work with GSA to implement capital projects that are discussed in the SSPP. Capital projects are identified and selected per the following process. First, a Building Evaluation Report is generated through a top-to-bottom review of the building. A Prospectus Development Study follows in which individual projects are examined in greater detail and the life cycle cost is considered. Finally, projects are submitted to GSA portfolio management staff in Region 5 (Chicago). Prospectus projects must be selected and receive funding from Congress to proceed. RRB will work with GSA to guide capital projects through this process but their implementation is dependent upon selection by GSA Headquarters personnel and upon Congressional funding.

#### f. Methods for Periodic Monitoring and Evaluation of Progress

The RRB will use this SSPP as an environmental management system (EMS) to meet the EMS requirement in EO 13423. At the close of each fiscal year, RRB will assess whether the implementation measures described in that year's plan have been implemented. RRB will quantify the environmental improvements (e.g., reduced energy consumption, non-hazardous waste diverted from landfill) and ensure that targets specified in the SSPP tables are met. In the event that the target is not met, RRB will evaluate measures for the upcoming fiscal year that can move the agency to the planned target. In the event that it is not feasible to carry out an implementation measure, the agency will include a discussion in the annual update of the plan of barriers that arose and how implementation measures in the coming year will allow the agency to reach its SSPP targets.

The following table illustrates the RRB's integration of sustainability into RRB policy and planning documents. The following should be noted regarding the table below:

1. OMB does not include RRB in its scorecard.
2. RRB's green purchasing plan addresses some aspects of sustainable acquisition but RRB will update it. See Goal 6 for additional discussion.
3. RRB is in the process of developing our agency's climate change adaptation strategy and thus has not begun the process of specifically integrating climate change adaptation planning into the agency's SSPP, planning or policy documents. However, achieving SSPP goals supports the agency's policy to mitigate risks of climate change

by improving efficiencies and expanding applicable redundancies within agency operations. For example, the RRB nationwide toll-free telephone service not only reduces the need for customer trips to RRB offices thereby cutting GHG emissions, but also allows the RRB to provide uninterrupted customer service from an alternate office if a local field office is unable to open due to an extreme weather event.

#### IV. Plan Implementation (optional image)

**Table 1: Critical Planning Coordination**

<b>Originating Report / Plan</b>	<b>Scope 1 &amp; 2 GHG Reduction</b>	<b>Scope 3 GHG Reduction</b>	<b>Develop and Maintain Agency Comprehensive GHG Inventory</b>	<b>High-Performance Sustainable Design/Green Buildings</b>	<b>Regional and Local Planning</b>	<b>Water Use Efficiency and Management</b>	<b>Pollution Prevention and Waste Elimination</b>	<b>Sustainable Acquisition</b>	<b>Electronic Stewardship and Data Centers</b>	<b>Agency Specific Innovation</b>
GPRAs Strategic Plan	N/A	Yes	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Agency Capital Plan	N/A	N/A	N/A	N/A	N/A	N/A	Yes	N/A	Yes	N/A
A-11 300s	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Annual GHG Inventory and Energy Data Report	Yes	Yes	Yes	No	N/A	Yes	N/A	Yes	Yes	N/A
EISA Section 432 Facility Evaluations/Project Reporting/Benchmarking	Yes	Yes	N/A	N/A	N/A	Yes	N/A	N/A	N/A	N/A
Budget	Yes	Yes	N/A	N/A	N/A	N/A	N/A	N/A	Yes	N/A
Asset Management Plan / 3 Year Timeline	N/A	N/A	N/A	N/A	N/A	N/A	Yes	N/A	N/A	N/A

<b>Originating Report / Plan</b>	<b>Scope 1 &amp; 2 GHG Reduction</b>	<b>Scope 3 GHG Reduction</b>	<b>Develop and Maintain Agency Comprehensive GHG Inventory</b>	<b>High-Performance Sustainable Design/Green Buildings</b>	<b>Regional and Local Planning</b>	<b>Water Use Efficiency and Management</b>	<b>Pollution Prevention and Waste Elimination</b>	<b>Sustainable Acquisition</b>	<b>Electronic Stewardship and Data Centers</b>	<b>Agency Specific Innovation</b>
Circular A-11 Exhibit 53s	Yes	Yes	N/A	N/A	N/A	N/A	N/A	N/A	Yes	N/A
OMB Scorecards	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
DOE's Annual Federal Fleet Report to Congress and the President	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	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	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Instructions for Implementing Climate Change Adaptation Planning	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.)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A

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

This section describes the quantitative techniques RRB uses to evaluate the economic life cycle cost and the qualitative means it uses to consider additional impacts (social, environmental, mission-specific) of building-related projects. In FY2011, RRB will develop a checklist of social, environmental, and mission-specific criteria that will formalize the integration of these factors into a ROI evaluation for building-related projects.

#### a. Economic Lifecycle Cost / Return on Investment

The agency utilizes life cycle cost analysis techniques to select projects that will reduce electricity and water consumption and encourage waste reduction. Often, this analysis is coordinated with GSA, the agency that is responsible for the implementation of all projects exceeding \$50,000 per the current delegation of authority agreement.

RRB selects energy conservation projects below \$50,000 with the use of tools such as simple payback analysis and a building energy simulation modeling program provided by the Department of Energy (DOE) Federal Energy Management Program (FEMP). Other sustainability projects are evaluated on a cost-effectiveness basis as appropriate.

A comprehensive energy and water conservation audit funded by GSA was conducted in October 2010. This audit provided a complete life cycle cost analysis on various energy projects utilizing building energy simulation modeling, and will serve as a guidance document for planning future projects that will assist the RRB in achieving its sustainability goals.

#### b. Social Costs and Benefits

To better serve its employees and customers, RRB is planning to qualitatively consider social costs and benefits when implementing building projects that enhance sustainability. As stated above, RRB will develop and utilize checklists of qualitative criteria to optimize the inclusion of social costs and benefits in ROI considerations for building-related projects.

#### c. Environmental Costs and Benefits

RRB qualitatively considers the costs and benefits to the environment when it implements sustainability projects, both building alterations and mission-specific. For example, RRB recognizes that its digital documentation process yields environmental benefits from reduction of trips to the archives even though the GHG emissions reductions from these reduced trips were not factored quantitatively into the decision to implement this measure.

Further, per EO 13423 and other statutory requirements, RRB gives priority to projects that will reduce GHG emissions through reduction of energy intensity, reduction of water consumption, enhancement of the cost effectiveness and efficiency of waste prevention and recycling programs, enhancement of solid waste diversion, and reduction of the use of toxic chemicals. Going forward, RRB will review checklists of qualitative criteria to optimize the inclusion of environmental costs and benefits in ROI considerations for building-related projects.

#### d. Mission-Specific Costs and Benefits

RRB qualitatively considers how sustainability projects will impact its mission and how sustainability is incorporated into measures that traditionally would be viewed as solely mission-specific. For example, building improvements create a more comfortable work environment that enhances productivity. Measures such as enabling new employees to use web-based RRB Vision as a training tool are implemented to assist the agency in using the time of its new

employees more effectively in addition to reducing travel costs. This increases the sustainability of the agency through reduced environmental impacts associated with travel. RRB Vision also reduces travel costs and increases the efficiency of RRB workers. Going forward, RRB will review checklists of qualitative criteria to optimize the inclusion of mission-specific costs and benefits in ROI considerations for building-related projects.

e. Operations and Maintenance and Deferred Investments

Deferred operations and maintenance projects are prioritized on a life cycle cost basis and per RRB's commitments under executive order and statutory requirements. ROI calculation methods, employed for select projects, are described in Section a above. Ensuring operations and maintenance projects are cost effective, for example, using RRB internal labor whenever possible helps RRB implement deferred maintenance projects.

f. Climate Change Risk and Vulnerability

The agency's primary vulnerability to climate change lies in the heating and cooling of its headquarters building. More extreme temperatures will cause the energy intensity of maintaining building temperatures to increase. To mitigate this risk, RRB strives to implement energy-efficient heating and cooling technologies and to work with GSA to include these projects in prospectus development as described in Section 1, Subsection IV.a.

**V. Evaluating Return on Investment (optional image)**

**VI. Transparency**

RRB will submit an updated SSPP annually to the Office of Management and Budget (OMB) and will post it on its website. Further, RRB will alert its employees to sustainability goals and implementation measures via an internal publication *All Aboard* and/or the agency intranet website, *Boardwalk*.

**VI. Transparency (optional image)**

**Section 2: Performance Review & Annual Update (Update and Submit Annually)**

**I. Summary of Accomplishments**

RRB has a history of actively pursuing projects that will reduce energy and water consumption in its headquarters building, which was built in 1922 and is owned by the GSA but operated by RRB under delegation authority. RRB also pursues mission-related projects that enhance the agency's overall sustainability.

The RRB has been successful in achieving energy and water reductions at its headquarters building. Since 2003, RRB has reduced its energy intensity (Btu/GSF) by 20.8 percent, increased the purchase of renewable energy to 5 percent, and reduced its water intensity (gallon/GSF) by 21.6 percent. The following is a summary of recently completed or ongoing projects that align with the agency's goal to become more sustainable and that have contributed significantly to the above stated reductions in water and energy consumption at the RRB headquarters.

\* RRB retrofitted the hot water recirculating system on four floors in the headquarters building to tie into the main vertical hot water pipe. This retrofit significantly decreased water usage associated with waiting for hot water at faucets on these floors (hot water is now instant). This project will be expanded to an additional three floors in FY 2011.

\* In FY 2010, RRB began renovation of the building elevator lobbies which includes the installation of energy efficient heating, ventilation and air conditioning (HVAC) systems and direct digital controls in the first floor main lobby, and energy efficient lighting control system (digital addressing lighting interface or DALI) and energy efficient lighting (compact fluorescents and LEDs) in the main lobby and remaining elevator lobbies throughout the building. Installation of the DALI system throughout the center of the building presents an opportunity for the system to be expanded throughout floors in the future.

\* RRB has an ongoing program to conserve water in which RRB is replacing 3 gallon-per-flush toilets with 1.25 gallon-per-flush toilets and automatic flush valves.

\* In October 2010, a comprehensive energy and water conservation audit was conducted by Energy Engineering & Consulting Services, LLC (EECS). This audit provided a complete life cycle cost analysis on various energy projects utilizing building energy simulation modeling. The RRB and/or GSA are using the recommendations from the audit to guide planning of future projects to support the RRB's sustainability goals.

It should be noted that the majority of the William O. Lipinski Federal Building, comprised of 12 floors and a basement, is occupied by RRB with the exception of two restaurants and one car dealership on the first floor, and an office tenant (formerly the Department of Labor) on the 12 th floor. Utilities consumed on the 12 th floor (electricity, natural gas, water and solid waste) are included in the RRB inventory data. However, as the 12 th floor tenant vacated the building in December 2009, the decrease in consumption of electricity, natural gas, water and solid waste as reported by RRB in FY 2010 reflects this vacancy. The impact on the reduction in aforementioned utility use cannot be quantified against the 2008 GHG baseline inventory as this office space is not separately metered or measured. Based on square footage, the 12 th floor represents approximately 8 percent of building use. If the 12 th floor is leased again, annual utility consumption will increase and the RRB will need to find innovative ways to continue to achieve reduction targets.

RRB is unique in two key ways that impact the goals discussed in Section 2. First, RRB operates its headquarters building under delegation authority from GSA as previously described.

Second, RRB will not enter into any energy savings performance contract (ESPC) or other alternative investments unless authorized by GSA. The comparatively small size of potential contracts available to RRB because of the delegation of authority agreement with GSA makes ESPCs unavailable for procurement by RRB. Therefore alternative financing agreements are not included in the following discussion.

RRB does not address field office operations except for in Goal 2, Scope 3 GHG emissions which are impacted by field office employee travel. RRB will work in concert with GSA to implement aspects of GSA's SSPP that

impact RRB field offices. Additionally, RRB will continue to modify business practices to increase efficiency and customer service while reducing GHG emissions from its field office operations.

## **Goal 1: Scope 1 & 2 Greenhouse Gas Reduction (Basic Performance Discussion, A - H)**

As Scope 1 GHG emissions are generated from equipment or operations within the RRB organizational boundary, either through fugitive or combustion sources. RRB Scope 1 emissions result from combustion in on-site natural gas-fired boilers that make low-pressure steam for building tenants.). Scope 2 GHG emissions are indirect emissions resulting from the off-site generation of electricity, steam or heat purchased by the consumer. The only Scope 2 emissions category applicable to RRB is the purchase of electricity. RRB has no reportable fleet vehicles and therefore implementation measures to reduce vehicle emissions are not discussed in this plan. RRB field employees do use their own or rental vehicles, however, as reviewed in the discussion of Goal 2.

### **1.a. Goal Description**

As requested by EO 13514, RRB submitted the Scope 1 and 2 GHG reduction targets on December 23, 2009. Agency reduction targets were derived using the DART tool. RRB had a total emissions baseline for Scope 1 and 2 GHG in FY 2008 as calculated in January 2011 of 4,100 mtCO<sub>2</sub>e for headquarters operations. The agency's planned FY 2020 percentage reduction target from the current FY 2008 baseline is 27.2 percent.

RRB has set the following Scope 1 and 2 emission reduction goals:

- \* Reduce energy intensity in its headquarters facility by 30 percent by 2015.
- \* Continue purchase of renewable energy through a GSA Region 5 electric contract. This contract stipulates that 5 percent of purchased power is generated from renewable energy (identified by the utility as non-locational wind generated in the U.S.). RRB will increase its portion of electricity purchased from renewable energy sources to 7.5 percent in FY 2013.

### **1.b. Agency Lead for Goal**

The SSO has oversight responsibility in meeting this RRB goal. The Facility Manager is assigned the responsibility for implementing measures to meet this goal.

### **1.c. Implementation Methods**

RRB plans to reduce energy intensity in its headquarters facility by implementing various energy conservation measures (ECM). Several ECMs were identified in a FY 2010 GSA-funded detailed energy and water conservation audit that provided a complete life cycle cost analysis on various energy projects utilizing building energy simulation modeling. Based upon audit results, RRB will work with GSA to select ECMs for upcoming years that will enable RRB to meet its target reductions in Goal 1. RRB will use the comprehensive GHG inventory discussed in Goal 2 to track the efficacy of implementation of Goal 1 projects against agency sustainability targets.

In FY 2010, GSA awarded a project exceeding \$2 million utilizing ARRA funds to completely renovate the first floor lobby of the William Lipinski Federal Building (RRB headquarters facility). This lobby upgrade includes all new entrances, doors, ceilings, wall treatments, floor treatments, lighting, heating, ventilation and other state-of-the art equipment. This project incorporated a new energy efficient lighting control system (DALI) as well as replaced lighting in the main lobby and all the elevator lobbies throughout the facility. The project will be completed by June 2011.

In FY 2010, the RRB will continue to purchase renewable energy through a GSA Region 5 electric contract. This contract stipulates that 5 percent of purchased power is generated from renewable energy (non-locational wind generated in the U.S.). RRB will increase its portion of electricity purchased from renewable energy sources to 7.5 percent in FY 2013.

In FY 2010, RRB piloted the replacement of T12 task lights at work stations with more energy efficient lighting. The pilot program is still under review as to whether or not it will be expanded in the future.

RRB works with GSA to develop a five-year plan for building improvements that include energy efficiency projects, the completion of which will move RRB towards achieving its Goal 1 targets. The projects in the five-year plan are not guaranteed to occur but must go through a funding review process. The current five-year plan includes the following projects.

- \* Improve hot water circulation in building to reduce the time water must run to become hot (FY 2010 and FY 2011, \$95,000) (four floors completed in FY 2010, three additional floors to be retrofitted in FY 2011)
- \* Upgrade loading dock facilities including installing air curtains that will isolate the dock from the remainder of the building, high-efficiency dock doors, energy-efficient dock lighting, and a door brake to the side door (FY 2012, \$200,000)
- \* Convert stairwell lights to LED (FY 2015, \$75,000)

The following projects are in the planning stages and must undergo the process described in Section I, Subsection IV.e before they are implemented. The total cost of these projects is estimated at \$30 million.

- \* Replacing the HVAC system
- \* Ceiling lighting replacement
- \* Upper floor lobby renovations that will incorporate energy efficient lighting
- \* Upgrades of electrical components including installing new switchgear and transformers and an emergency power source
- \* Replacing and/or retrofitting windows

RRB has also proposed the following energy efficiency projects to GSA. Estimated costs are provided when available. The schedule for these projects is unknown but will be evaluated in subsequent five-year updates. Costs are provided where known.

- \* Expand the existing DALI control system in elevator lobbies along with new energy efficient lighting to all offices throughout the facility. This will include new occupancy sensors in all public restrooms and private offices throughout the facility as well. (\$350,000)
- \* Replacing air conditioning units in the data center with more energy efficient direct digital controls, providing upgraded control sequences, and tying into the existing building automation system.
- \* Upgrading building automation controls for the air conditioning units serving the 13 th floor elevator machine room, which currently do not have proper control and are not tied in to the existing building automation system. (\$25,000)
- \* Removing and replacing packaged air conditioning units. Replacing water-cooled packaged units with new HVAC units and integrating interface controls with existing building automation system. (\$100,000)
- \* Installing a new energy management tracking and control system to track and monitor, at a minimum, existing electrical meters and the HVAC system. (\$125,000)
- \* Providing air curtains in both the Rush Street and Pearson Street vestibule areas. (\$20,000)
- \* Replacing existing windows, which are not air-tight.
- \* Converting steam radiator perimeter heat to a hot water perimeter heating system. (\$1,750,000, based on November 2001 prospectus study)
- \* Replacing all air handling units (AHU) and ductwork within the facility and converting it to a complete variable air volume (VAV) system. The work includes but is not limited to demolition of units, asbestos abatement, removal of return fans and exhaust fans, and sound attenuation. Installing new VAV boxes, grilles, registers, diffusers, duct work, duct insulation, concrete pads, variable speed drives, and AHUs. This ECM was suggested by Architectural Energy Corp. in the 2002 energy audit. (\$9,000,000)

#### **1.d. Positions**

The Facility Manager with the oversight of the SSO will carry out the implementation measures for this goal. No new full-time equivalent (FTE) will be requested nor will FTE be diverted from other tasks.

#### **1.f. Agency Status**

RRB continually seeks out projects that will lower energy consumption during building operation. From FY 2003 to FY 2010, energy consumption has decreased from 103,877 Btu/gross square foot to 82,227 Btu/gross square foot, representing a 20.8 percent reduction in energy intensity per square foot since FY 2003. This reduction

represents an additional 5.8 percent reduction above and beyond the RRB's energy intensity reduction goal of a 15 percent reduction by FY 2010.

As previously noted, the vacancy of the 12 th floor tenant in December 2009 contributed to the reduction in RRB's reported emissions. As the 12 th floor is not separately metered, the percent of overall energy use attributed to the 12 th floor tenant is unknown. Occupation of the 12 th floor in the future will result in an increase in reported emissions.

RRB is meeting its goal of purchasing 5 percent of its electricity purchase from renewable sources.

In October 2010, the comprehensive energy and water conservation audit that was conducted by EECS provided a complete life cycle cost analysis on various energy projects utilizing building energy simulation modeling. RRB is working with the GSA on identifying next projects that are cost-effective with maximum energy savings. Analysis of the recommendations developed from the audit may reprioritize or add to the list of projects included in Section 1.c.

Examples of ongoing and/or recently completed projects that will reduce RRB's energy consumption are included in Section 1.h below.

#### **1.g. Return on Investment**

RRB projects implemented to address Scope 1 and 2 emissions reductions are not yet complete and thus have not been assessed to determine if ROI was higher than the expected ROI. No RRB programs have been cancelled, suspended or expanded due to analyses showing a lower than expected ROI.

#### **1.h Highlights**

RRB achieved a 20.8 percent reduction in energy intensity per square foot in FY 2010 from the FY 2003 baseline. This reduction represents an additional 5.8 percent reduction above and beyond the RRB's energy intensity reduction goal of a 15 percent reduction by FY 2010.

The following RRB project is expected to provide significant Scope 2 GHG emissions reductions:

\* In FY 2010, RRB began renovation of the building elevator lobbies which includes the installation of energy efficient heating, ventilation and air conditioning (HVAC) systems and direct digital controls in the first floor main lobby, and energy efficient lighting control system (digital addressing lighting interface or DALI) and energy efficient lighting (compact fluorescents and LEDs) in the main lobby and remaining elevator lobbies throughout the building. The installation of the core DALI system throughout the building elevator lobbies creates the opportunity for future expansion of the DALI system throughout the floors of the building, including into the data center, which will further reduce Scope 2 emissions. The project is expected to be completed in June 2011.

The following planning table shows RRB's success in implementing effective energy reduction programs since FY 2008.

It should be noted RRB has no reportable fleet vehicles and therefore implementation measures to reduce vehicle emissions are not discussed in this plan or in the table below. RRB field employees do use their own or rental vehicles, however, as reviewed in the discussion of Goal 2.

**Goal 1: Scope 1 & 2 Greenhouse Gas Reduction (Planning Table)**

.	SCOPE 1&2 GHG TARGET	Unit	FY10	FY11	FY12	FY13	FY14	FY15	...	FY20
Buildings										
Buildings										
Buildings	Energy Intensity Reduction Goals (BTU/SF reduced from FY03 base year)	%	15	18	21	24	27	30		hold
Buildings	Planned Energy Intensity Reduction (BTU/SF reduced from FY03 base year)	%	6	10	13	15	18	30	...	
Buildings	Renewable Electricity Goals (Percent of electricity from renewable sources)	%	5	5	5	7.5	hold	hold		hold
Buildings	Planned Renewable Electricity Use (Percent of electricity from renewable sources)	%	5	5	5	7.5			...	
Fleet	Petroleum Use Reduction Targets (Percent reduction from FY05 base year)	%	10	12	14	16	18	20		30
Fleet	Planned Petroleum Use Reduction (Percent reduction from FY05 base year)	%								
Fleet	Alternative Fuel Use in Fleet AFV Target (Percent increase from FY05 base year)	%	61	77	95	114	136	159		hold
Fleet	Planned Alternative Fuel Use in Fleet AFV (Percent increase from FY05 base year)	%								

.	<b>SCOPE 1&amp;2 GHG TARGET</b>	<b>Unit</b>	<b>FY10</b>	<b>FY11</b>	<b>FY12</b>	<b>FY13</b>	<b>FY14</b>	<b>FY15</b>	<b>...</b>	<b>FY20</b>
Fleet	Senior Executive Fleet Replaced with Low-GHG, High Efficiency Vehicles (Percent replaced from FY08 base year)	%								
.	Other as defined by agency									
.	Total Scope 1 & 2 GHG Emissions (Comprehensive)	MMTCO <sub>2</sub> e	3.159						...	
.	Total Scope 1 & 2 GHG Emissions (Subject to Agency Scope 1 & 2 GHG Reduction Target)	MMTCO <sub>2</sub> e	3.159						...	
.	Overall Agency Scope 1 & 2 Reduction (reduced from FY08 base year)	%	23						...	

**Goal 1: Scope 1 & 2 Greenhouse Gas Reduction (Goal-Specific Items)**

RRB has addressed programs and accomplishments regarding reduction of facility energy intensity and renewable electricity usage in the preceding sections.

RRB is reducing the number of employees through natural attenuation. As the number of employees is reduced, RRB will work with GSA in the future to reduce per capita energy consumption through space management policies. RRB anticipates a one floor reduction resulting from space consolidation activities.

**Goal 1 (optional image)**

**Goal 2: Scope 3 Greenhouse Gas Reduction & Develop and Maintain Agency Comprehensive Greenhouse Gas Inventory (Basic Performance Discussion, A - H)**

**2.a. Goal Description**

The RRB will continue to prepare and refine its annual Scope 1, 2 and 3 GHG emissions inventories in order to monitor progress against its emission reduction goals. Target emission reductions for Scopes 1 and 2 are discussed under Goal 1 above. Scope 3 emission reduction targets are summarized below.

The RRB has set reduction targets by FY 2020 for the following six Scope 3 emissions categories. After each category name, RRB identifies the percent reduction target for that category in parentheses. The overall reduction target for Scope 3 GHG emissions is 6.1 percent.

\* Federal employee business Air Travel (5%)

- \* Federal employee business Ground Travel (5%)
- \* Federal Employee Commuting (5%)
- \* Contracted Solid Waste Disposal (13.5%)
- \* Contracted Wastewater Treatment (5%)
- \* Transmission and Distribution (T&D) Losses from Purchased Energy (2.5%)

RRB has provided a document outlining the data and assumptions that underpin GHG emissions estimates for Scope 3 and the establishment of reduction targets for each source category, which is included as Appendix 5 to this SSPP. At this time, RRB does not plan to voluntarily add emission categories to its analysis of Scope 3 emissions.

## **2.b. Agency Lead for Goal**

The SSO has oversight responsibility in meeting this RRB goal. The Facility Manager is assigned the responsibility for implementing measures to reach this goal.

## **2.c. Implementation Methods**

The RRB submitted FY 2008 and FY 2010 GHG inventories to the CEQ in January 2011 using the FEMP Sustainability Data Report tool. In 2011, FY 2008 baseline emission data for Scopes 2 and 3 changed slightly from 2010 estimates as the methodology and calculations used in the 2011 FEMP reporting tool varied from the 2010 Scope 3 Emissions Reduction Target Tool. RRB will continue to follow CEQ/FEMP methodology to report annual emissions.

RRB utilizes utility records (electricity purchased, natural gas consumed) to develop Scope 1 and 2 emissions. RRB will use its GHG inventory in conjunction with energy efficiency audits to prioritize projects that will move the agency closer towards its Scope 1 and 2 emission targets as listed in Goal 1.

RRB reports emissions for the following Scope 3 emissions categories:

- \* Federal employee business air travel
- \* Federal employee business ground travel
- \* Federal employee commuting
- \* Contracted solid waste disposal
- \* Contracted wastewater treatment

\* Transmission and distribution losses associated with purchased electricity

RRB will implement the following methods to reach reduction targets for the above six categories as described below.

#### Federal employee business travel and commuting

Scope 3 emissions in this sub-target stem from business air and ground travel and employee commuting. A commuter survey developed using the CEQ guidance document released in FY 2010 was administered to RRB employees for FY 2010. Total GHG emissions from federal employee travel as calculated in 2010 were 2,404 mtCO<sub>2e</sub>.

RRB is implementing several measures to reduce GHG emissions from business travel. First, RRB plans to increase the number of hearings in which Hearings and Appeals attorneys hold hearings via videoconferencing. However, in FY 2010 and 2011, the vulnerabilities of RRB's dependence on video conferencing to reduce GHG emissions from federal employee business travel were revealed. At this time, RRB does not intend to change its approach to using this tool to reduce Scope 3 emissions. When the technology is operational, the travel activity is significantly decreased as illustrated by the percentage of hearings conducted by video conference for the first half of 2011 (44 percent).

Second, the agency has developed a video training web site called RRB Vision. This training web site allows agency personnel to obtain training without having to travel. RRB will use this tool when possible to reduce training-related travel.

RRB conducted a commuter survey in 2010. RRB employees travel to the headquarters location by many methods, including passenger vehicles, commuter rail, public transportation (subway, bus), bike, and by foot. RRB will continue to conduct commuter surveys on an annual basis to monitor the success of revised programs aimed at decreasing emissions from employee commuting.

RRB implements several measures that reduce GHG emissions from employee commuting. First, RRB has an active work-at-home program that may be expanded when possible. Second, the agency participates in a transit voucher program that provides employees pre-tax savings for utilizing mass transit to commute to work. This program could be expanded in the future to provide for additional transit reimbursement if funding is available. Finally, agency policy currently allows alternative work schedules.

Further, a 5 percent reduction in RRB employees by 2020 will reduce the amount of federal employee travel and commuting.

RRB has established an emissions reduction target goal of 5 percent for this emissions category.

#### Contracted waste disposal

Scope 3 emissions in this sub-target stem from contracted solid waste disposal and wastewater treatment. Total GHG emissions from this category in base FY 2008 as calculated in January 2011 are 142 mtCO<sub>2</sub>e. The overall reduction target for waste disposal activities is 13.5 percent.

RRB is implementing several measures to reduce GHG emissions from contracted waste disposal. To reduce the amount of waste landfilled, the agency is presently evaluating increasing the amount of paper recycled at the Lipinski building by providing individual recycling containers at each employee's desk. Employees would carry the paper in these containers to centralized paper recycling receptacles on every floor of the facility.

To reduce the volume of wastewater requiring treatment, RRB is taking steps to reduce water consumption at the Lipinski building including installing low-flush toilets, retrofitting the hot water recirculation system and identifying next steps based on recommendations from a building audit that identified further water conservation measures (see Goal 4 discussion). Decreasing water usage will reduce GHG emissions from wastewater treatment as will the anticipated 5 percent reduction in RRB employees by 2020.

#### Transmission and Distribution (T&D) losses from purchased energy

Total GHG emissions in base FY 2008 as calculated in January 2011 and the reduction target for the T&D Losses category are 200 mtCO<sub>2</sub>e and 2.5 percent, respectively.

To meet its reduction target in this category, the agency plans to increase its purchase of renewable energy from off-site sources from 5 percent of purchased electricity in FY 2008 to 7.5 percent by FY 2013. T&D losses are calculated based on a percentage of purchased electricity. By increasing the percentage of renewable energy in purchased electricity, the RRB effectively reduces purchased electricity from non-renewable sources thereby reducing GHG emissions from purchased electricity and thus T&D losses. Energy efficiency measures described elsewhere in this plan, for example in Goals 1 and 7, will also serve to move RRB towards its 2.5 percent reduction target.

#### Other, as defined by RRB

RRB does not include other Scope 3 GHG emissions in its SSPP.

#### Planned agency activity or policy implementation to improve data accuracy and/or collection and analysis methods

RRB is in the process of working with its waste hauler contractor in FY 2011 to consider possibilities for improving the estimate of the fraction of total RRB-generated waste removed from the building. As described in the memo in Appendix 5 regarding Scope 3 GHG calculations that accompanies this SSPP, calculation of Scope 3 GHG emissions from contracted waste disposal are directly proportional to the amount of waste landfilled. Therefore, improving the estimate of the fraction of waste attributable to RRB will improve the accuracy of the estimated GHG emissions from contracted waste disposal.

## **2.d. Positions**

The Facility Manager with the oversight of the SSO will carry out the implementation measures for this goal. No new full-time equivalent (FTE) will be requested nor will FTE be diverted from other tasks.

## **2.f. Agency Status**

RRB developed the FY 2008 and FY 2010 GHG inventories submitted in January 2011 using the FEMP Sustainability Data Report template. Use of this template further refined FY 2008 baseline emissions. RRB utilizes utility records (electricity purchased, natural gas consumed) to develop Scope 1 and 2 emissions. The agency contacted vendors when applicable for additional information and verification of energy consumption data. Methodologies for calculating RRB's portion of emissions from utility bills where separate metering was not available were included in the FY 2010 GHG Qualitative Statement.

RRB was successful in FY 2010 in meeting an overall 13% reduction in Scope 3 GHG emissions, excluding GHG emissions from employee commuting, from 542 to 322 mtCO<sub>2</sub>e. The following illustrates RRB's Scope 3 2020 targets and FY 2010 performance:

- \* Federal employee business Air Travel: FY 2020 Target: 5%; FY 2010 Performance: -9%
- \* Federal employee business Ground Travel: FY 2020 Target: 5%; FY 2010 Performance: -6%
- \* Federal Employee Commuting: FY 2020 Target: 5%; FY 2010 Performance: n/a
- \* Contracted Solid Waste Disposal: FY 2020 Target: 13.5%; FY 2010 Performance: 25%
- \* Contracted Wastewater Treatment: FY 2020 Target: 5%; FY 2010 Performance: 7%
- \* Transmission and Distribution (T&D) Losses from Purchased Energy: FY 2020 Target: 2.5%; FY 2010 Performance: 25%
- \* Overall Scope 3 GHG Emissions Reductions: FY 2020 Target: 6.1%; FY 2010 Performance: 13% (excluding employee commuting)

The RRB conducted an employee commuter survey in FY 2010 that further delineated RRB's Scope 3 emissions and sets a new baseline in FY 2010 for Scope 3 GHG emissions at 2,676 mtCO<sub>2</sub>e.

Emissions reductions were near 25 percent in the categories of T&D Losses and contracted municipal solid waste disposal. The change in T&D losses can be explained by the reduction in Scope 2 energy consumption as well as the purchase of renewable energy. In addition, RRB has employed improved recycling programs to divert waste streams from the landfill including adding plastic bottles to the items recycled and encouraging employees to use the recycling containers available to them. Contracted wastewater treatment decreased by 7 percent over the last two years as the RRB has significantly reduced its water consumption and thereby its wastewater output (see Goal 4).

However, federal employee business air travel and ground travel increased between FY 2008 and FY 2010 by 6 and 9 percent, respectively. The increase in travel was caused by two issues: first, the video conferencing equipment was not in service from June to December of 2010, and secondly from April to December 2010 newly recruited hearings and appeals officers traveled alongside fully trained personnel for training purposes.

\* **Business Air Travel:** From June to December 2010, RRB experienced issues with malfunctioning videoconferencing equipment which resulted in increased air and ground business travel for hearings and thus increased GHG emissions in these Scope 3 categories. Video-conferencing was reinstated in the first half of 2011 and from January through May 2011, 24 of 54 hearing were conducted by video conference. However, due to the termination of the contract with the current provider, starting in June 2011 RRB will again be required to travel for hearings instead of video-conferencing until a different service provider can be contracted. At this time, RRB does not intend to change its approach to using this tool to reduce Scope 3 emissions. When the technology is operational, the travel activity is significantly decreased as illustrated by the percentage of hearings conducted by video conference for the first half of 2011 (44 percent).

\* **Business Ground Travel:** In FY 2010 a higher than usual number of new employees were hired and thus trained in 2010, resulting in an increase in travel and GHG emissions in this category. Use of the RRB Vision tool allows the RRB to mitigate further additional travel that would have been required for these new employees. As the number of new employees was an anomaly in FY 2010, RRB expects to meet future goals in this category.

RRB employs a number of strategies to minimize Scope 3 GHG emissions including operating a headquarters without parking facilities located in an urban area serviced by a strong public transportation network. RRB also implements a work-at-home program, provides pre-tax savings for commuting via mass transit, taps videoconferencing technology, and employs web-based employee training. Where applicable, expansion of these programs may reduce emissions from the federal employee travel category. However, reduction in this category will be dependent upon availability of funds to implement expanded programs.

## **2.g. Return on Investment**

Based on an assessment that revealed a high ROI and significant water conservation, which in turn reduces the amount of wastewater sent to the treatment plant, the following two programs will continue to be expanded throughout the headquarters building:

\* In FY 2010 RRB purchased 24 new energy saving low flush toilets which will replace 3 gallon/flush toilets with 1.25 gallon/flush toilets. The replacement of toilets throughout the building is ongoing (since FY 2009, 45 toilets were purchased and replaced). An additional 16 toilets will be purchased at the end of FY 2011 if funding is available. These low flush toilets help to significantly reduce water consumption.

\* In FY 2010, RRB retrofitted the hot water recirculating system on four floors in the headquarters building to tie into the main vertical hot water pipe. RRB plans to expand this project to three additional floors in FY 2011. This retrofit significantly decrease water usage associated with waiting for hot water at faucets on these floors (hot water is now instant).

## 2.h Highlights

RRB was successful in FY 2010 in meeting an overall 13 reduction in Scope 3 GHG emissions, excluding GHG emissions from employee commuting, approximately 7 percent above the agency’s FY 2020 goal of a 6.1% reduction for Scope 3 GHG emissions,

The RRB conducted an employee commuter survey in FY 2010 that further delineated RRB’s Scope 3 emissions and sets a new baseline in FY 2010 for Scope 3 GHG emissions at 2,676 mtCO<sub>2</sub>e.

Emissions reductions were near 25 percent in the categories of T&D Losses and contracted municipal solid waste disposal. The change in T&D losses can be explained by the reduction in Scope 2 energy consumption at the headquarters building as well as the purchase of renewable energy. In addition, RRB has employed improved recycling programs to divert waste streams from the landfill including adding plastic bottles to the items recycled and encouraging employees to use the recycling containers available to them. Contracted wastewater treatment decreased by 7 percent over the last two years as the RRB has significantly reduced its water consumption and thereby its wastewater output (see Goal 4).

RRB’s dependence on video conferencing technology to meet FY 2020 targets for federal employee business air and ground travel was challenged in FY 2010 and in FY 2011 by malfunctioning equipment and contract negotiations, resulting in a rise in these Scope 3 emission categories. However, RRB anticipates that once video-conferencing issues are resolved the technology offers the best approach for significant reductions in GHG emissions generated by business air and ground travel.

It should be noted in the following table that RRB has completed Line 3 - Overall Agency Scope 3 Reduction of the planning table above based on Scope 3 emissions excluding federal employee commuting (see discussion below table).

### Goal 2: Scope 3 Greenhouse Gas Reduction & Develop and Maintain Agency Comprehensive Greenhouse Gas Inventory (Planning Table)

SCOPE 3 GHG TARGET	Units	FY10	FY11	FY12	FY13	FY14	FY15	...	FY20
Total Scope 3 GHG Emissions (Comprehensive)	MMTCO <sub>2</sub> e	2.68						...	
Total Scope 3 GHG Emissions (Subject to Agency Scope 3 GHG Reduction Target)	MMTCO <sub>2</sub> e	2.68						...	
Overall Agency Scope 3 Reduction (reduced from FY08 base year)	%	13						...	
Other, as defined by agency	%							...	

## **Goal 2: Scope 3 Greenhouse Gas Reduction & Develop and Maintain Agency Comprehensive Greenhouse Gas Inventory (Goal-Specific Items)**

RRB developed the FY 2008 and FY 2010 GHG inventories submitted in January 2011 using the FEMP Sustainability Data Report template. Use of this template further refined FY 2008 baseline emissions. RRB utilizes utility records (electricity purchased, natural gas consumed) to develop Scope 1 and 2 emissions. The agency contacted vendors when applicable for additional information and verification of energy consumption data. Methodologies for calculating RRB's portion of emissions from utility bills where separate metering was not available were included in the FY 2010 GHG Qualitative Statement.

RRB's approach to improving the accuracy of data and reducing emissions from Scope 3 categories including federal employee travel, contracted waste disposal, and transmission and distribution losses from purchased energy is outlined in the section above.

RRB used a second party verification process to ensure accuracy of its GHG data. As noted above, the 12 th floor tenant vacated the building in December of 2009 which impacted RRB's Scope 1, 2 and 3 reported emissions. If the 12 th floor is occupied again in the future and separate metering is not installed for this floor, RRB's reported emissions will increase compared to the previous year(s).

As indicated above, FY 2008 Scope 3 emissions did not include federal employee commuting as a commuter survey was not conducted at that time. Results from a commuter survey conducted for FY 2010 is included in the FY 2010 reported emissions and sets a new baseline for Scope 3 emissions at 2,676 mtCO<sub>2</sub>e. Therefore, total FY 2008 and FY 2010 Scope 3 emissions levels are not comparable. To address this issue for FY 2010, RRB has completed Line 3 - Overall Agency Scope 3 Reduction of the planning table above based on Scope 3 emissions excluding federal employee commuting.

### **Goal 2 (optional image)**

## **Goal 3: High-Performance Sustainable Design/Green Buildings & Regional and Local Planning (Basic Performance Discussion, A - H)**

### **3.a Goal Description**

The RRB has operational control over the William Lipinski Federal Building at 844 North Rush Street. RRB also has 53 additional field offices in federal or leased buildings over which GSA or another lessor has operational control. Field offices are therefore not addressed in RRB's SSPP. RRB will work with GSA to implement GSA's SSPP as appropriate to meet the objectives of EO 13514 at those facilities. The following sub-targets fall under Goal 3 for high performance sustainable design.

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

**Sub-target 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).”

**Sub-target c)** RRB’s headquarters building meet guiding principles by FY 2015.

**Sub-target d)** Demonstrate annual progress toward 100% conformance with Guiding Principles for RRB headquarters.

**Sub-target e)** Incorporate sustainable practices into agency policy and planning for new federal facilities and leases, and into lease renewal strategies.

**Sub-target f)** Demonstrate use of cost-effective, innovative building and landscape strategies to minimize energy, water and materials consumption.

**Sub-target g)** Operate and maintain and conduct all minor repairs and alterations for existing building systems to reduce energy, water and materials consumption in a manner that achieves a net reduction in agency deferred maintenance costs.

**Sub-target h)** Optimize performance of the agency’s real property portfolio – dispose and consolidate excess and underutilized property, co-locate field offices, consolidate across metropolitan and regional locations.

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

**Sub-target j)** Conserve, rehabilitate and reuse historic Federal properties, using current best practices and technology.

**Sub-target k)** Align agency space actions (new leases, new construction, consolidation) with agency Scopes 1, 2 and 3 GHG reduction targets.

RRB’s headquarters facility, which does not include parking facilities, is located in downtown Chicago and is served by a strong network of public transportation. Employees who live in the suburbs generally take commuter rail into the city and then walk or take public transit to the facility. Other employees may live close enough to bike or walk to work.

RRB is not currently involved in planning activities for Chicago as public transit service around the headquarters building and other factors that would impact employee commuting are unlikely to change. RRB does not foresee participating in regional transportation or energy planning and does not plan to construct or occupy new or expanded Federal facilities.

For these reasons, RRB’s SSPP does not address regional and local planning.

### **3.b. Agency Lead for the Goal**

The SSO has oversight responsibility in meeting this RRB goal. The Facility Manager is designated to carry out the implementation measures for this goal.

### **3.c. Implementation Methods**

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

This sub-target is not applicable to RRB because it will not occupy or construct any new Federal buildings in FY 2010.

**Sub-target b)** Ensure that all new construction, major renovation, or repair and alteration of Federal buildings comply with the Guiding Principles.

GSA implements major renovations in the RRB headquarters building and follows the Guiding Principles in carrying out these projects. For example, GSA calculates baseline energy consumption prior to renovation with American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) methods and then sets a goal of improving that baseline energy consumption by 30 percent.

**Sub-targets c and d)** Ensure RRB's headquarters building meets the Guiding Principles by FY 2015 and that the agency makes annual progress toward 100 percent conformance with the Guiding Principles for its building inventory.

As renovations are completed at the headquarters building, RRB will make annual progress towards operating a facility that is 100 percent in conformance with the Guiding Principles.

**Sub-target e)** Incorporate sustainable practices into agency policy and planning for new federal facilities and leases, and into lease renewal strategies.

The RRB will not occupy or construct any new Federal buildings in FY 2011. RRB's headquarters and field offices comply with existing energy conservation measures specified by GSA. All leasing arrangements are made through GSA, which incorporates energy efficiency into its leased facility oversight.

**Sub-target f)** Demonstrate use of cost-effective, innovative building and landscape strategies to minimize energy, water, and materials consumption.

RRB continually pursues the use of cost-effective, innovative building strategies to reduce energy, water, and materials consumption at its headquarters facility, the only building over which the agency has operational control. Examples of building management strategies are provided in the discussion of Goals 1, 4, and 6.

**Sub-target g)** Operate and maintain and conduct all minor repairs and alterations for existing building systems to reduce the consumption of energy, water, and materials, and identify alternatives to renovation that reduce existing assets' deferred maintenance costs .

RRB upgrades building systems with the intent of reducing existing assets' deferred maintenance costs. For example, the retrofit of the cooling tower fans with variable frequency drives will reduce maintenance costs on these fans due to less wear and tear on the fans. Similarly, the air conditioning upgrade that will occur during the lobby renovation will entail using soft starts and will tie the air conditioning system in with the building automation system to optimize air conditioner operation, thereby reducing total run time and maintenance costs.

**Sub-target h)** Optimize the performance of the agency's real-property portfolio dispose and consolidate excess and underutilized property, co-locate field offices, consolidate across metropolitan and regional locations.

This sub-target is not applicable to RRB because it operates only one building and will not consolidate those operations or dispose of assets. However, it should be noted that as the number of RRB employees is reduced due to attrition, the RRB will work with GSA to consolidate existing office space within RRB headquarters which may reduce the number of floors RRB occupies within the building by one floor.

The RRB will work with GSA to identify opportunities for consolidation when leasing new or renewing existing field office space.

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

RRB implements a work-at-home program, employs videoconferencing technology, and employs web-based employee training. Where applicable, expansion of these programs may reduce the need for additional field offices.

**Sub-target j)** Conserve, rehabilitate and reuse historic Federal properties, using current best practices and technology.

There are various ways historic preservation practices are used to support RRB's sustainability goals. The lobby renovation project on the first floor is designed to retain some of the original materials that, if removed, would be sent to a landfill. The original marble floors are being reused and incorporated into the new design. The marble wainscoting on the walls is to be retained. Some of this will be exposed as part of the new design; other portions will be covered over. In all cases, the original fabric would be saved. Light fixtures for the lobby will appear appropriate to the period of the building but will be energy efficient and utilize state of the art controls that allow for dimming, daylight harvest, and other energy saving measures. The existing entries to the building are not original. Although the new entries will not restore the doors to their original location or configuration, efforts were made to design a new door configuration that would have been appropriate to the period as well as providing a vestibule that reduces waste in heating and cooling.

RRB building management is working to establish building standards for the elevator lobbies and other public areas on the upper floors. Most of the original marble wainscoting on these floors is intact and will be saved in any future renovations thus reducing waste sent to landfill. Similarly, existing original wood doors in the upper lobby areas will remain. New doors will be made to match the existing doors. The future lighting will appear appropriate to the period but be energy efficient and have state of the art controls that allow for further energy savings.

**Sub-target k)** Align agency space actions (new leases, new construction, consolidation) with agency Scopes 1, 2 and 3 GHG reduction targets.

As RRB only has operational control over the headquarters building, actions taken within the building, specifically consolidation under this sub-target, will directly affect Scopes 1, 2 and 3 GHG reduction targets by reducing energy and materials consumption.

**3.d. Positions**

The Facility Manager with the oversight of the SSO will carry out the implementation measures for this goal. No new FTE will be requested nor will FTE be diverted from other tasks.

**3.f. Agency Status**

RRB continues to work with GSA to implement renovation projects that move the headquarters building closer to 100 percent compliance with the Guiding Principles. In the discussion of Goals 1 and 4 RRB provides examples of projects planned for this fiscal year that enhance the sustainability of the William Lipinski Federal Building.

**3.g. Return on Investment**

As RRB projects being implemented that fall under this goal are not yet complete and thus have not been assessed to compare projected to actual ROI, no RRB programs have been cancelled, suspended or expanded due to ROI evaluation.

**3.h Highlights**

The following RRB retrofit provides an exceptional example of integrating state-of-the-art technologies into an historical Federal building:

In FY 2010, RRB began renovation of the building elevator lobbies which includes the installation of energy efficient heating, ventilation and air conditioning (HVAC) systems, direct digital controls, energy efficient lighting control system (DALI) and energy efficient lighting (compact fluorescents and LEDs) in elevator lobbies throughout the building. The installation of the core DALI system throughout the building elevator lobbies creates the opportunity for future expansion of the DALI system throughout the floors of the building.

**Goal 3: High-Performance Sustainable Design/Green Buildings & Regional and Local Planning (Planning Table)**

<b>GOAL 3 Targets</b>	<b>Units</b>	<b>FY10</b>	<b>FY11</b>	<b>FY12</b>	<b>FY13</b>	<b>FY14</b>	<b>FY15</b>	<b>...</b>	<b>FY20</b>
Owned Buildings	%	0	0	0	0	0	0	...	0
FRPP-Reported Leased Buildings	%	0	0	0	0	0	0	...	0
Total Buildings	%	0	0	0	0	0	15	...	15

<b>GOAL 3 Targets</b>	<b>Units</b>	<b>FY10</b>	<b>FY11</b>	<b>FY12</b>	<b>FY13</b>	<b>FY14</b>	<b>FY15</b>	<b>...</b>	<b>FY20</b>
Other (Buildings), as defined by agency	0	0	0	0	0	0	0	...	0
Other (Reg/Local Planning), as defined by agency	0	0	0	0	0	0	0	...	0

**Goal 3: High-Performance Sustainable Design/Green Buildings & Regional and Local Planning (Goal-Specific Items)**

RRB’s approach to addressing applicable sub-targets under Goal 3 is included in the discussion above.

As RRB does not own any facilities and operates one building under GSA delegation, RRB will work with GSA to implement the measures under this goal.

**Goal 3 (optional image)**

**GOAL 4: Water Use Efficiency and Management (Basic Performance Discussion, A - H)**

**4.a. Goal Description**

This goal is a directive under the EO 13514 to advance water use efficiency and management. The following are the four sub-targets identified in the EO for this goal:

**Sub-target a)** Reduce potable water use intensity by at least 26 percent by FY 2020.

**Sub-target b)** Reduce industrial, landscaping, and agricultural water use by at least 20 percent by FY 2020.

**Sub-target c)** Identify and implement water reuse strategies.

**Sub-target d)** Achieve objectives established by EPA in Stormwater Guidance for Federal Facilities.

**Sub-target e)** Incorporate appropriate reduction strategies for non-potable water use into agency policy and planning.

**4.b. Agency Lead for Goal**

The SSO has oversight responsibility in meeting Goal 6 for the RRB. The Facility Manager is assigned the responsibility for implementing actions to achieve this goal .

**4.c. Implementation Methods**

**Sub-target a)** Reduce potable water consumption by 2 percent per year from FY 2008 through FY 2020 (total 26 percent reduction) with base starting year of FY 2007.

RRB takes a holistic approach to water management in its headquarters building and has planned and implemented several ongoing initiatives that will reduce water consumption.

In FY 2011 the RRB will replace 24 three gallon-per-flush with 1.25 gallon-per-flush toilets purchased in FY 2010. RRB has already replaced 45 conventional toilets through FY 2010 and is planning on purchasing and replacing 16 additional low-flush toilets at the end of FY 2011 if funding is available.

In addition, in FY 2010 RRB retrofitted the hot water recirculating system on four floors in the headquarters building to tie into the main vertical hot water pipe. This retrofit significantly decrease water usage associated with waiting for hot water at faucets on these floors (hot water is now instant). The RRB plans on retrofitting the hot water recirculating system on an additional three floors in FY 2011.

RRB also proposed to GSA removal and replacement of several packaged air conditioning units. Water-cooled packaged units would be replaced with new, energy- and water-efficient HVAC units. The estimated cost of this project is \$100,000.

The energy audit conducted in FY 2010 (see Goal 1) included a review of water efficiency measures that RRB could implement.

Sub-target b) Reduce industrial, landscaping, and agricultural water use by at least 20 percent by FY 2020.

This sub-target is not addressed in Section 6.c. because it is not applicable to RRB, which does not use water for industrial, landscaping, or agricultural purposes.

Sub-target c) Identify and implement water reuse strategies.

RRB has limited opportunities to reuse water at its headquarters facility. The agency proposed a rooftop rainwater capture and harvesting system to GSA in which the captured rainwater would be treated with chlorine and used to flush toilets and urinals. This system would require installation of a new piping system. The estimated cost of this project is \$700,000. This project is under consideration but has no target implementation date.

Sub-target d) Achieve objectives established by EPA in Stormwater Guidance for Federal Facilities.

If the agency, in partnership with GSA as the owner of the headquarters building, undertakes a redevelopment project of the headquarters building that would impact the ability of the facility to manage or improve stormwater management, RRB would encourage GSA to implement the measures described in the technical guidance document to the maximum extent technically feasible.

RRB has requested a rainwater harvesting project, as described in the discussion of sub-target c.

Sub-target e) Incorporate appropriate reduction strategies for non-potable water use into agency policy and planning.

As discussed in Section 1 Part IV Plan Implementation, the RRB has issued plan and policy documents that relate to sustainability, and utilizes existing planning structures to prioritize the goals and implementation measures presented in the SSPP. See Section 1 Part IV for a description of plan and policy documents and a discussion of additional planning procedures.

#### **4.d. Positions**

The Facility Manager with the oversight of the SSO will carry out the implementation measures for this goal. No new FTE will be requested nor will FTE be diverted from other tasks.

#### **4.f. Agency Status**

RRB has decreased water consumption from 16.1 gallons/gross square foot in FY 2007 to 12.6 gallons/gross square foot in FY 2010, almost a 22 percent decrease in water intensity, far ahead of the 6 percent reduction target for FY 2010. Several recent initiatives, described below, continue to decrease water consumption at the headquarters building.

- \* In all the bathroom and lavatories in the headquarters building, the sinks and urinals have automatic faucets and flush valves with reduced consumption type diaphragms.
- \* In FY 2010 RRB purchased 24 new energy saving low flush toilets which will replace 3 gallon/flush toilets with 1.25 gallon/flush toilets. The replacement of toilets throughout the building is ongoing (since FY 2009, 45 toilets were purchased and replaced). An additional 16 toilets will be purchased at the end of FY 2011 if funding is available. These low flush toilets help to significantly reduce water consumption.
- \* In FY 2010, RRB retrofitted the hot water recirculating system on four floors in the headquarters building to tie into the main vertical hot water pipe. RRB plans to expand this project to three additional floors in FY 2011. This retrofit significantly decreased water usage associated with waiting for hot water at faucets on these floors (hot water is now instant).

#### **4.g. Return on Investment**

Based on an assessment that revealed a high ROI and significant water conservation, the following two programs will continue to be expanded throughout the headquarters building:

- \* In FY 2010 RRB purchased 24 new energy saving low flush toilets which will replace 3 gallon/flush toilets with 1.25 gallon/flush toilets. The replacement of toilets throughout the building is ongoing (since FY 2009, 45 toilets were purchased and replaced). An additional 16 toilets will be purchased at the end of FY 2011 if funding is available. These low flush toilets help to significantly reduce water consumption.

\* In FY 2010, RRB retrofitted the hot water recirculating system on four floors in the headquarters building to tie into the main vertical hot water pipe. RRB plans to expand this project to three additional floors in FY 2011. This retrofit significantly decreased water usage associated with waiting for hot water at faucets on these floors (hot water is now instant).

**4.h. Highlights**

RRB has implemented two programs that have significantly reduced water consumption at the RRB headquarters including replacing conventional toilets with low-flush toilets and retrofitting the hot water circulation system as described in Section 4.g above. These programs will continue to be implemented in FY 2011.

**GOAL 4: Water Use Efficiency and Management (Planning Table)**

<b>Water Use Efficiency &amp; MGMT</b>	<b>Units</b>	<b>FY10</b>	<b>FY11</b>	<b>FY12</b>	<b>FY13</b>	<b>FY14</b>	<b>FY15</b>	<b>...</b>	<b>FY20</b>
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)	%	16	18	20		22	24	...	
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)	%							...	
Other, as defined by agency								...	

**GOAL 4: Water Use Efficiency and Management (Goal-Specific Items)**

A discussion of water use efficiency and management sub-targets is included in the discussion above. As shown in the table above, RRB is exceeding their reduction targets for water consumption.

**Goal 4 (optional image)**

**GOAL 5: Pollution Prevention and Waste Reduction (Basic Performance Discussion, A - H)**

**5.a. Goal Description**

The following are the 11 sub-targets identified in the EO for this goal:

**Sub-target a)** Increase source reduction of pollutants and waste .

**Sub-target b)** Divert at least 50 percent non-hazardous solid waste by FY 2015, excluding construction and demolition (C&D) debris .

**Sub-target c)** Discuss agency strategies to reduce municipal solid waste sent to landfills and how implementation will assist the agency in achieving FY 2020 GHG reduction targets [See Goals 1 and 2 above].

**Sub-target d)** Divert at least 50 percent C&D materials and debris by FY 2015, and discuss methods used to monitor and track progress .

**Sub-target e)** Reduce printing paper use.

**Sub-target f)** Increase use of uncoated printing and writing paper containing at least 30 percent post-consumer fiber.

**Sub-target g)** Reduce and minimize the acquisition, use and disposal of hazardous chemicals and materials, and discuss how implementation will assist the agency in achieving FY 2020 GHG reduction targets [See Goals 1 and 2] .

**Sub-target h)** Increase the diversion of compostable and organic material from the waste stream.

This sub-target is not addressed in Section 5.c. because an insignificant amount of this type of waste is generated by RRB headquarters employees.

**Sub-target i)** Implement integrated pest management and landscape management practices to reduce and eliminate the use of toxic and hazardous chemicals and materials .

A landscape management practice is not addressed under sub-target i in Section 5.c. because RRB headquarters are located in an urban area and no landscape management occurs.

**Sub-target j)** Increase agency use of acceptable alternative chemicals and processes.

This sub-target is not addressed in Section 5.c. because, aside from cleaning and pest management products, which are addressed under sub-target a, RRB does not use chemicals.

**Sub-target k)** Report in accordance with Sections (301-313) of the Emergency Planning and Community Right-to-Know Act (EPCRA) of 1986 ).

RRB does not address this sub-target in Section 5.c. because RRB is not subject to this reporting. RRB does maintain MSDS sheets for cleaning compounds, provided by the cleaning contractor, in use at the facility on-site.

## **5.b. Agency Lead for Goal**

The SSO has oversight responsibility in meeting this RRB goal. The Facility Manager is assigned the responsibility for implementing this goal.

### **5.c. Implementation Methods: Summary**

**Sub-target a)** Increase source reduction of pollutants and waste .

The primary source of pollutants used at RRB headquarters is cleaning products. The contracted cleaner is Green Seal Certified and continuously seeks to reduce its environmental impact. All cleaning products are phosphate-free. The company is piloting the use of garbage can liners that are made from recycled soft drink bottles.

Pest management chemicals are also employed at RRB headquarters. RRB will encourage the vendor to use more benign chemicals whenever possible.

**Sub-target b)** Divert at least 50 percent non-hazardous solid waste by FY 2015, excluding construction and demolition (C&D) debris .

RRB's Basic Board Order 5 (July 9, 2008), "Procurement, Property, Supplies, and Service" contains a commitment to "cost-effective waste reduction and recycling of reusable material from wastes generated in all of its operations and facilities." The section references EO 13423 and is in the process of being updated to reference EO13514.

RRB is considering providing recycling containers for each RRB headquarters employee to encourage them to recycle at their desk, then bring their container to paper recycling receptacles located on their floor.

RRB has recycled plastic bottles since FY 2008. RRB recycles metal cans, shredded and unshredded paper, and printer cartridges.

**Sub-target c)** Discuss agency strategies to reduce municipal solid waste sent to landfills and how implementation will assist the agency in achieving FY 2020 GHG reduction targets [See Goals 1 and 2 above].

See sub-target b above.

**Sub-target d)** Divert at least 50 percent C&D materials and debris by FY 2015, and discuss methods used to monitor and track progress .

RRB does not typically generate significant quantities of C&D materials and therefore is not adopting formal implementation methods for this sub-target. During this fiscal year's lobby renovation, however, RRB worked with GSA to identify opportunities to divert C&D materials.

**Sub-target e)** Reduce printing paper use.

RRB Administrative Circular IRM-17 (February 16, 2010) is the headquarters printing policy, which also impacts the field offices. It documents the following policies that reduce printing paper use at the agency.

\* Staff are encouraged to use duplex printing as a default setting for capable equipment.

- \* When possible, employees are encouraged to use the multiple screens per page option in RRB applications when printing.
- \* New network printers will be duplex capable.
- \* Less efficient desktop printer usage is restricted to executives, those who must print confidential information, and employees who receive a policy exception, possibly as a result of a reasonable accommodation request.

Print jobs sent to the print center are processed as duplex unless specified otherwise by the job requestor. If the print center receives an order for a single-sided job, staff confirms by phone the justification for a single-sided job such as color bleed-through or document format requirements (e.g., formal letter).

Beyond enforcement of the printing policy and maximizing duplex jobs at the print center, RRB does not plan to adopt further implementation measures for this sub-target.

**Sub-target f)** Increase use of uncoated printing and writing paper containing at least 30% post-consumer fiber.

RRB uses 97 percent uncoated printing paper with at least 30 percent post-consumer fiber. The remaining 3 percent of printing paper, which has a lower recycled content, must be used on high-speed copiers which do not function properly when fed paper with 30 percent post-consumer fiber.

**Sub-target g)** Reduce and minimize the acquisition, use and disposal of hazardous chemicals and materials, and discuss how implementation will assist the agency in achieving FY 2020 GHG reduction targets [See Goals 1 and 2] .

Currently, R-22 refrigerant is used in the chillers in RRB’s air conditioning system. The chillers will likely be replaced in approximately 2015. In the interim, the contractor who maintains the chillers conducts monthly leak checks and repairs the chillers if necessary to prevent leaks.

When the chillers are replaced, RRB will evaluate which refrigerant best meets the goals of this SSPP. For example, RRB will review EPA guidance on this topic. Until the chillers’ replacement, RRB seeks to maintain the existing chillers to minimize refrigerant leaks.

**Sub-target i)** Implement integrated pest management and landscape management practices to reduce and eliminate the use of toxic and hazardous chemicals and materials .

RRB is in conversation with its pest control vendor to understand chemicals used in pest management at RRB and encourages the vendor to use less-toxic alternatives whenever possible.

#### **5.d. Positions: Summary**

The facility manager with the oversight of the SSO will carry out the implementation measures for this goal. No new FTE will be requested nor will FTE be diverted from other tasks.

**5.f. Agency Status: Summary**

Goal 5 of this SSPP is integrated into RRB’s policies and procedures. RRB has decreased the amount of solid waste being landfilled by almost 25 percent from FY 2008 to FY 2010, representing a 12.5 percent reduction above and beyond the RRB’s FY 2020 target reduction of 13.5 percent. The expansion of the recycling program to include plastic bottles as well as an educational component of the program to educate employees about the presence of recycling bins and what can be recycled have contributed to the success of RRB’s solid waste program.

In FY 2010, RRB diverted 36 percent of solid waste through these recycling activities.

**5.g. Return on Investment**

RRB has not cancelled, suspended or expanded programs under Goal 5 based on a project ROI assessment.

**5.h. Highlights**

RRB has decreased the amount of solid waste being landfilled by almost 25 percent from FY 2008 to FY 2010, representing a 12.5 percent reduction above and beyond the RRB’s FY 2020 target reduction of 13.5 percent. The expansion of the recycling program to include plastic bottles as well as an educational component of the program to educate employees about the presence of recycling bins and what can be recycled have contributed to the success of RRB’s solid waste program.

As indicated above, several sub-targets under Goal 5 do not apply to the RRB headquarters; therefore rows that address those sub-targets are filled in with “n/a” in the planning table below.

**GOAL 5: Pollution Prevention and Waste Reduction (Planning Table)**

<b>Pollution Prevention &amp; Waste Reduction</b>	<b>Units</b>	<b>FY10</b>	<b>FY11</b>	<b>FY12</b>	<b>FY13</b>	<b>FY14</b>	<b>FY15</b>	<b>...</b>	<b>FY20</b>
Non-Hazardous Solid Waste Diversion Targets (Non-C & D)	%	36		36	41	45	50	...	
C & D Material & Debris Diversion Targets	%	n/a	n/a	n/a	n/a	n/a	50	...	n/a
If agency uses on-site or off-site waste-to-energy, estimated total weight of materials managed through waste-to-energy	Tons or Pounds	n/a	n/a	n/a	n/a	n/a	n/a	...	n/a
Number of sites or facilities with on-site composting programs	#	n/a	n/a	n/a	n/a	n/a	n/a	...	n/a
Number of sites or facilities recycling through off-site composting programs	#	n/a	n/a	n/a	n/a	n/a	n/a	...	n/a

<b>Pollution Prevention &amp; Waste Reduction</b>	<b>Units</b>	<b>FY10</b>	<b>FY11</b>	<b>FY12</b>	<b>FY13</b>	<b>FY14</b>	<b>FY15</b>	<b>...</b>	<b>FY20</b>
If agency has on-site or off-site composting programs, estimated total weight of materials diverted to composting	Tons or pounds	n/a	n/a	n/a	n/a	n/a	n/a	...	n/a
% of agency-operated offices/sites with a recycling program	%	100	100	100	100	100	100	...	100
If agency offices located in multi-tenant buildings, % of those buildings with a recycling program	%	100	100	100	100	100	100	...	100
% of agency-operated residential housing with recycling programs	%	n/a	n/a	n/a	n/a	n/a	n/a	...	n/a
Other, as defined by agency	n/a	n/a	n/a	n/a	n/a	n/a	n/a	...	n/a

**GOAL 5: Pollution Prevention and Waste Reduction (Goal-Specific Items)**

A discussion of pollution prevention and waste reduction sub-targets is included in the discussion above.

**Goal 5 (optional image)**

**GOAL 6: Sustainable Acquisitions (Basic Performance Discussion, A - H)**

**6.a. Goal Description – Sustainable Acquisition**

The following are the two sub-targets identified in the EO for this goal:

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

**Sub-target 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.

**6.b. Agency Lead**

The SSO has oversight responsibility in meeting Goal 6 for the RRB. The Chief of Acquisition Management is assigned the responsibility for implementing actions to achieve this goal. The Chief of Acquisition Management oversees purchasing for both the headquarters facility and field offices.

### **6.c. Implementation Methods**

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

RRB has a history of purchasing environmentally preferable products and has formalized purchasing requirements that will enable RRB to meet this sub-target in Basic Board Order (B.B.O.) 5 (July 9, 2008), which describes RRB's Affirmative Procurement program. This program meets the requirements of Section 6002 of the Resource Conservation and Recovery Act (RCRA). B.B.O. 5 promotes the purchase of recovered materials and non-ozone depleting substances. Administrative Circular OA-14 describes the implementation of this policy and states that the RRB will "where practicable, give favorable consideration to environmentally sound practices or environmentally friendly products/components..."

RRB procurement language incorporates federal acquisition regulation (FAR) clauses that enable the agency to purchase goods and/or services that are energy efficient, water efficient, bio-based, environmentally preferable, non-ozone depleting and non-hazardous, and contain recycled content. It should be noted that RRB generally purchases its green product delivery orders through GSA contracted vendors, significantly reducing the number of contracts issued directly by RRB for green product procurement.

These policies facilitated requiring support services to use the following bio-based products in FY 2009 in the headquarters building.

- \* Penetrating lubricants
- \* Greases
- \* Floor strippers
- \* Bathroom and spa cleaners
- \* Glass cleaners
- \* Hand cleaners and sanitizers
- \* Carpet

In FY 2010 RRB purchased toilets and automatic flush valves that were WaterSense-labeled as described in the discussion of Goal 4.

Further, RRB contracts with a janitorial services provider that is Green Seal Certified.

RRB's commitment to training acquisition personnel on green purchasing policies and procedures is critical to the agency's success in meeting this sub-target. RRB conducts green procurement training on a biennial basis. In FY 2009, 100 percent of acquisition personnel received documented training that covered the following topics.

- \* EPA-designated recycled content products
- \* ENERGY STAR products
- \* Bio-based and USDA-designated bio-preferred products
- \* Environmentally preferable products and services
- \* WaterSense and other water-efficient products
- \* Non-ozone depleting substances

Additional training will be administered in FY 2011.

RRB tracks purchases over \$3,000 in the Federal Procurement Data System (FPDS) and reports its sustainable acquisition practices each fiscal year in compliance with RCRA requirements. This tracking system will be used to assess whether 95 percent of contract actions meet the requirements of this goal.

Adherence to RRB's affirmative procurement and green purchasing training programs are the measures that RRB will take to achieve sub-target a of Goal 6.

**Sub-target 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.B.O. 5 and Administrative Circular OA-14 are in the process of being updated to reflect the requirements of EO 13514 including the purchasing of water-efficient, bio-based, and non- or less-toxic alternatives.

**6.d. Positions**

The Facility Manager with the oversight of the SSO will carry out the implementation measures for this goal. No new FTE will be requested nor will FTE be diverted from other tasks.

**6.f. Agency Status: Summary**

RRB has a strong history of green purchasing. Updating of agency policy to reflect the requirements of EO 13514 and tracking contract actions through FPDS will enable RRB to meet this goal’s targets. Further, RRB will continue to train acquisition personnel on green purchasing principles.

**6.g Return on Investment**

RRB has not cancelled, suspended or expanded programs under Goal 6 based on a project ROI assessment.

**6.h. Highlights**

RRB has a strong history of green purchasing and agency policies require all procurement contracts to include language requiring the use of green

The table below presents a summary of the Sustainable Acquisition sub-goals.

**GOAL 6: Sustainable Acquisitions (Planning Table)**

Sustainable Acquisition	Units	FY10	FY11	FY12	FY13	FY14	FY15	...	FY20
New Contract Actions Meeting Sustainable Acquisition Requirements	%	90	95					...	
Energy Efficient Products (Energy Star, FEMP-designated, and low standby power devices)	%	90	95					...	
Water Efficient Products	%	90	95					...	
Biobased Products	%	90	95					...	
Recycled Content Products	%	90	95					...	
Environmentally Preferable Products/Services (excluding EPEAT - EPEAT in included in Goal 7)	%	90	95					...	
SNAP/non-ozone depleting substances	%	90	95					...	

<b>Sustainable Acquisition</b>	<b>Units</b>	<b>FY10</b>	<b>FY11</b>	<b>FY12</b>	<b>FY13</b>	<b>FY14</b>	<b>FY15</b>	<b>...</b>	<b>FY20</b>
Other, as defined by agency								...	

**GOAL 6: Sustainable Acquisition Contract Review**

<b>SUSTAINABLE ACQUISITION CONTRACT REVIEW</b>	<b>1st QTR FY 11</b>	<b>2nd QTR FY 11</b>	<b>3rd QTR FY 11 (planned)</b>	<b>4th QTR FY 11 (planned)</b>
Total # Agency Contracts	0	0	0	0
Total # Contracts Eligible for Review				
Total Contracts Eligible Contract Reviewed (i.e., 5% or more eligible based on previous OMB guidance)				
# of Compliant Contracts				
Total % of Compliant Contracts				

**GOAL 6: Sustainable Acquisitions Contract Review**

As a small agency, RRB generally purchases its green product delivery orders through GSA contracted vendors, significantly reducing the number of contracts issued directly by RRB for green product procurement. If the RRB purchases products from an outside vendor, RRB contract language includes the language as described above to ensure green products are purchased where applicable. In FY 2011, RRB has not and does not anticipate green product procurement outside of solicitations through GSA contracts.

**GOAL 6: Sustainable Acquisitions (Goal-Specific Items)**

See the section above for information regarding contract practices, policies and programs employed by RRB.

**Goal 6 (optional image)**

**GOAL 7: Electronic Stewardship and Data Centers (Basic Performance Discussion, A - H)**

**7.a. Goal Description**

The following are the six sub-targets identified in the EO for this goal:

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

**Sub-target 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.

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

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

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

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

#### **7.b. Agency Lead for Goal**

The Senior Sustainability Officer has oversight responsibility in meeting Goal 7 for the U.S. Railroad Retirement Board. The Chief Information Officer and the Facility Manager are assigned the responsibility for implementing actions to achieve this goal.

#### **7.c. Implementation Methods**

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

B.B.O 5 specifies that all microcomputers and other electronic computing devices must meet EPA Energy Star requirements. As a result of this policy, RRB included requirements to supply EPEAT-registered computer products in 95 percent of FY 2009 solicitations, contracts, and leases for IT equipment. RRB will maintain this level of environmentally-preferable purchasing in FY 2011 and beyond.

**Sub-target 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.

Existing policies at RRB assist the agency in meeting sub-target b of Goal 7. First, the Desktop Configuration Policy mandates that personal computers go into standby mode after three minutes of inactivity. Second, agency policy encourages duplex printing. Third, B.B.O 5 specifies that all microcomputers and other electronic computing

devices must meet EPA Energy Star requirements. It states that users of these computers will be made aware of their energy-saving features during computer training classes.

In FY 2011, RRB will investigate means of increasing the effectiveness of its policies that address this sub-target.

For example, RRB may include in its Energy Conservation Policy (Administrative Circular RRB-1, December 4, 2007) that desktop computers be turned off at night. RRB will consider implementing an automated shut down to ensure this policy's effectiveness.

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

RRB's first choice for divesting of surplus/obsolete computers is GSA's Computers for Learning (CFL) program.

Please refer to sub-target d for a summary of RRB's practices. This approach is formalized in Administrative Circular BSS-2 (June 5, 2003). RRB policy already addresses environmentally sound disposition of all agency excess or surplus electronic products and will not be updated.

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

For the past two fiscal years, RRB has implemented a program that requires all computer equipment is excessed in an environmentally sound manner. RRB's first choice for divesting of surplus/obsolete computers is GSA's Computers for Learning (CFL) program. If no school can or will take the excess computers, RRB sells them through GSA's Xcess. If neither of these options is possible, RRB investigates using Unicor in Kansas City or a local certified recycler, considering which option is more cost effective. This consideration includes transportation costs. CRT terminals and controllers that are past their useful life are recycled by a certified recycler.

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

All non-ENERGY STAR rated equipment at the RRB is scheduled for replacement based upon lifecycle considerations. In addition, priority is given to replacement of those items based on power consumption and heat outputs. An example of this type of planning consideration was the replacement of old and unreliable rack mounted servers. The IT Department evaluated and planned for their replacement with new blade servers. This type of server replacement not only improves reliability of the network but reduces cooling requirements due to lower heat outputs by blade servers.

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

RRB has only one data center at its headquarters facility with about 300 servers and a single mainframe computer that will be the focus of Goal 7. RRB does not plan to eliminate this essential data center. RRB will meet the technology energy reduction goals in this data center first through development and enforcement of policy as described above. Second, RRB will collect data about energy consumption patterns in the data center to assist RRB in identifying and implementing technology-based solutions for reducing energy consumption. Sub-metering of the data center has been proposed to GSA as an energy conservation project. In the interim, UPS devices may be able to provide estimates of up to 80 percent of the power drawn in the data center. RRB will work with the UPS maintenance contractor to develop an estimate of power consumption in the center in FY 2011. In FY 2011, RRB plans to use the data to identify and implement energy-saving measures in the data center.

RRB has considered using cloud computing to reduce energy consumption, but concerns about data privacy thus far have precluded RRB's use of this technology. GSA plans to build a cloud computing center that RRB and other agencies could use that would be compliant with the Privacy Act. The schedule for the completion of this center is uncertain, but RRB will work with GSA to assess how RRB can best use the center when it is complete.

RRB will update its Energy Conservation Policy (Administrative Circular RRB-1, December 4, 2007) to specifically include the on-site data center. The policy will mandate that lights be turned off after hours. This measure will help regulate the temperature in the data center and reduce cooling needs.

In FY 2011, RRB will consider the cost and feasibility of installing automatic controls to regulate lighting and climate in the data center.

#### **7.d. Positions**

The Chief Information Officer, Facility Manager, and the Communications and Property Manager, with the oversight of the SSO, will carry out the implementation measures for this goal. No new FTE will be requested nor will FTE be diverted from other tasks

#### **7.f. Agency Status**

Characteristics of RRB computing enable it to meet several of the goals in the planning table below. In other cases, RRB must gather data, such as energy use in the data center, to identify strategies for reducing energy consumption. The agency has identified several opportunities to update policies that will reduce energy consumption. RRB's acquisition policy ensures that Energy Star and EPEAT products are purchased. Finally, the agency has disposed of electronic property through Computers for Learning, GSA Xcess, or a certified recycler for two fiscal years and will continue this program.

#### **7.g. Return on Investments**

RRB is in the process of determining next steps in reducing energy consumption associated with the data center. A benefit of the elevator lobby renovation project and possible next steps is to tie into the core DALI system put in place in the center of the building.

**7.h. Highlights**

See Section 7.f above.

The table below demonstrates that RRB already meets several mandated goals.

The following should be noted regarding RRB’s strategies to meet the goal not already achieved as shown in the planning table below.

1. RRB currently cannot use cloud computing because of possible non-compliance with the Privacy Act.
  
2. RRB conducted an initial PUE analysis which indicated a rating of 3.9. For this benchmark to be meaningful it should be generated on a regular basis and preferably also on different days of the week and at different times of day. RRB’s goal is to take actionable efficiency actions based on our actual data. By comparing RRB’s starting benchmark with benchmarks taken after implementing changes, we should be able to see noticeable improvements in our PUE. Energy improvements include eliminating our third shift in the data center and going to a lights out mode during that shift.

**GOAL 7: Electronic Stewardship and Data Centers (Planning Table)**

<b>ELECTRONIC STEWARDHIP &amp; DATA CENTERS</b>	<b>Units</b>	<b>FY10</b>	<b>FY11</b>	<b>FY12</b>	<b>FY13</b>	<b>FY14</b>	<b>FY15</b>
% of electronic product acquisition covered by current Energy Star specifications that must be energy-star qualified		90	100	100			
% of covered electronic product acquisitions that are EPEAT-registered		90	95	95			

<b>ELECTRONIC STEWARDHIP &amp; DATA CENTERS</b>	<b>Units</b>	<b>FY10</b>	<b>FY11</b>	<b>FY12</b>	<b>FY13</b>	<b>FY14</b>	<b>FY15</b>
% of covered electronic product acquisitions that are FEMP-designated		90	95	95			
% of agency, eligible PC, Laptops, and Monitors with power management actively implemented and in use		90	100	100	100		
% of agency, eligible electronic printing products with duplexing features in use		90	95	100	100		
% of electronic assets covered by sound disposition practices		100	100	100	100		
% of agency data centers independently metered, advanced metered, or sub-metered to determine monthly (or more frequently) Power Utilization Effectiveness (PUE)		0	40	60	80	90	100
Reduction in the number of agency data centers		0					
% of agency data centers operating with an average CPU utilization greater than 65%		100	50	75			
Maximum annual weighted average Power Utilization Effectiveness (PUE) for agency.		3.9	1.8	1.7	1.6	1.5	1.4

**GOAL 7: Electronic Stewardship and Data Centers (Goal-Specific Items)**

See section above regarding RRB electronic stewardship and data center policies, procedures, disposition practices, life-cycle planning of equipment and data center policies.

**Goal 7 (optional image)**

**GOAL 8: (New) Agency Innovation & Government-Wide Support (Basic Performance Discussion, A - H)**

RRB has been successful in meeting targets in most goal areas, and has been particularly successful in reducing water and energy consumption and waste output above targets as discussed throughout this document. At this time, RRB does not have special programs beyond those dedicated to addressing the sustainability goals of this document.

**GOAL 8: (New) Agency Innovation & Government-Wide Support (Planning Table)**

<b>AGENCY INNOVATION &amp; Government-Wide Support</b>	<b>Units</b>	<b>FY10</b>	<b>FY11</b>	<b>FY12</b>	<b>FY13</b>	<b>FY14</b>	<b>FY15</b>	<b>...</b>	<b>FY20</b>
Programs, Projects, Initiatives that support Gov-wide efforts									

<b>AGENCY INNOVATION &amp; Government-Wide Support</b>	<b>Units</b>	<b>FY10</b>	<b>FY11</b>	<b>FY12</b>	<b>FY13</b>	<b>FY14</b>	<b>FY15</b>	<b>...</b>	<b>FY20</b>
Other, as defined by agency									

**GOAL 8: (New) Agency Innovation & Government-Wide Support (Goal-Specific Items)**

At this time, RRB does not have special programs beyond those dedicated to addressing the sustainability goals of this document.

**Goal 8 (optional image)**

**Section 3: Agency Self Evaluation**

**Agency Self Evaluation**

<b>Agency Self Evaluation</b>	<b>Answer</b>
Does your Sustainability Plan incorporate and align sustainability goals, GHG targets and overarching objectives for sustainability with the Agency Strategic Plan?	Yes
Does it provide annual targets, strategies and approaches for achieving the 2015 and 2020 goals?	Yes
Is the Sustainability Plan consistent with the FY2012 President's Budget?	Yes
Does the Sustainability Plan integrate all statutory and Executive Order requirements into a single implementation framework for advancing sustainability goals along with existing mission and management goals, making the best use of existing and available resources?	Yes
Does your plan include methods for obtaining data needed to measure progress, evaluate results, and improve performance?	Yes

**Explanations & Other Key Questions for 2011**

1. RRB has achieved comprehensive implementation of EO 13423 Electronic Stewardship goals through including EO 13423 procurement requirements in B.B.O. 5 and adhering to this policy for all relevant RRB contracts and purchases through GSA contracts, including acquiring only EPEAT-registered electronics. In addition, RRB has enabled energy star or power management features on 100% of eligible PCs (PCs that cannot be turned off do to essential functions are therefore not considered eligible PCs and do not have these features enabled). RRB’s standard life-cycle for computers is three years; however, some have an extended use of five years cycle where feasible. As previously stated, RRB has implemented a program that requires all computer equipment is excessed

in an environmentally sound manner. RRB's first choice for divesting of surplus/obsolete computers is GSA's CFL program. If no school can or will take the excess computers, RRB sells them through GSA's Xcess. If neither of these options is possible, RRB disposes of equipment with a certified recycler. For recycled equipment, RRB receives a certificate from the recycler certifying proper disposition. As a small agency, RRB procurement and IT specialists can verify RRB's adherence to agency policies.

2. As a small agency, RRB generally purchases its green product delivery orders through GSA contracted vendors, significantly reducing the number of contracts issued directly by RRB for green product procurement. If the RRB purchases products from an outside vendor, RRB contract language includes the language as described in Goal 6 to ensure green products are purchased where applicable. . As a small agency, RRB procurement specialists can verify RRB's adherence to agency policies.

3. In October 2010, a comprehensive energy and water conservation audit was conducted. This audit provided a complete life cycle cost analysis on various energy projects utilizing building energy simulation modeling. The RRB and/or GSA are using the recommendations from the audit to guide planning of future projects to support the RRB's sustainability goals.

4. Metering at the RRB headquarters building currently meets the metering requirements.

5. RRB does not report to the FRPP.

In June-December 2011, RRB will implement the following measures.

- \* Identify energy and water conservation measures through a GSA-funded detailed energy audit that will focus on operations and maintenance practices.
- \* Purchase renewable energy through a GSA Region 5 electric contract.
- \* Evaluate the pilot program for the replacement of T12 task lights at work stations with more energy efficient lighting.
- \* Provide additional recycling containers for RRB headquarters employees to encourage recycling in the workplace.
- \* Replace 24 three gallon-per-flush with 1.25 gallon-per-flush toilets and automatic flush valves throughout the facility, and purchase an additional 16 low-flush toilets for replacement in FY 2012.
- \* Expand the hot water recirculation retrofit to three additional floors.
- \* Complete the update of B.B.O. 5 and Administrative Circular OA-14 to reflect the requirements of EO 13514 including the purchasing of water-efficient, bio-based, and non- or less-toxic alternatives.
- \* Complete the update of the Energy Conservation Policy (Administrative Circular RRB-1, December 4, 2007) to include the on-site data center.

- \* Continue to maintain the chillers to minimize refrigerant leaks.

From January – June 2012, RRB will implement the following measures.

- \* Consider the feasibility of eliminating the third shift in the data center and going to “lights out” mode during this time.
- \* Use power consumption data from the data center to identify and implement energy-saving measures in the data center.

## **Endnotes**

### **Resource/Investment Allocation by Goal**