



**National Science Foundation**  
**FY 2014 Strategic Sustainability Performance Plan**

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## Policy Statement

The National Science Foundation (NSF) is committed to sustainability, including complying with all applicable environmental and energy statutes, regulations and Executive Orders (EOs) for Federal agencies. In concert with our mission of advancing science in the service of the nation, the Foundation commits to achieving a better understanding of climate change and developing the best approach to improve resiliency against it. NSF strives to serve as a model sustainable Federal agency.

Our fiscal year 2014 Strategic Sustainable Performance Plan is a sign of this commitment to continue to engage our communities so that we may realize the many benefits sustainability offers.

A handwritten signature in black ink, reading 'Clifford Gabriel' followed by a stylized flourish.

Clifford Gabriel  
Senior Sustainability Officer

# Executive Summary

## Background

The footprint of the National Science Foundation (NSF) covers property under the direct use of NSF and its Office of Inspector General. The Foundation has been successful in identifying to the lessor of its main Headquarters (HQ) building ways to implement energy and water efficiency measures. We will continue to work with the lessor throughout the period of the current lease. Upon lease expiration, NSF will be able to greatly accelerate the environmental performance of its Headquarters because we plan to relocate to a new building leased by the General Services Administration (GSA), and GSA now requires higher “green lease” standards for new leases of commercial space.

The Foundation provides financial assistance awards to organizations that conduct scientific research on behalf of the nation. These properties are not used, managed, or operated by the agency. NSF has no direct control over the business operations of our recipient organizations. We have limited ability to influence the organizations’ consumption of electricity, water, and vehicle fuel. However, we are committed to working within the legal and logistical confines of our assistive funding instruments with the grantee organizations to improve their operational efficiency and sustainability.

## Vision

NSF is an independent Federal agency created by the National Science Foundation Act of 1950 to promote the progress of science, advance national health, prosperity, and welfare, and secure national defense. The Foundation fulfills its mission primarily by issuing limited-term competitive grants and by sponsoring grantee organizations that conduct basic scientific research in the interest of the nation. Improving sustainability supports the Foundation mission by making better use of Foundation resources, including energy, supplies, and personnel.

The most significant advancement in the Foundation’s sustainability will come with the new HQ lease that will provide NSF with space that is higher performing and more sustainable. NSF is working with GSA to construct a new GSA-leased building that is consistent with the higher “green lease” standards GSA now has for new leases of commercial space. With the many facets of sustainability embodied in a higher performing building, the new lease will reduce the Foundation’s environmental footprint and operating costs, while promoting employee health by virtue of measures such as using building materials with lower levels of volatile organic compounds. The Foundation estimates that the new leased facility will be ready to occupy in fiscal year (FY) 2017.

In the meantime, the Foundation is making sustainability a part of its day-to-day operation by integrating sustainability approaches into core agency planning, budgeting and procedures. For the near future, the Foundation plans to accomplish this by focusing on sustainability measures that reduce expenses. Examples are requiring electronic product acquisitions to be energy-efficient and reducing disposal costs by increasing the portion of solid waste that is recycled. NSF is also actively expanding its teleworking program. In FY 2013, the Foundation completed negotiations to increase the maximum number of days per week that an employee can telework, and issued the new policy in FY 2014.

## Leadership

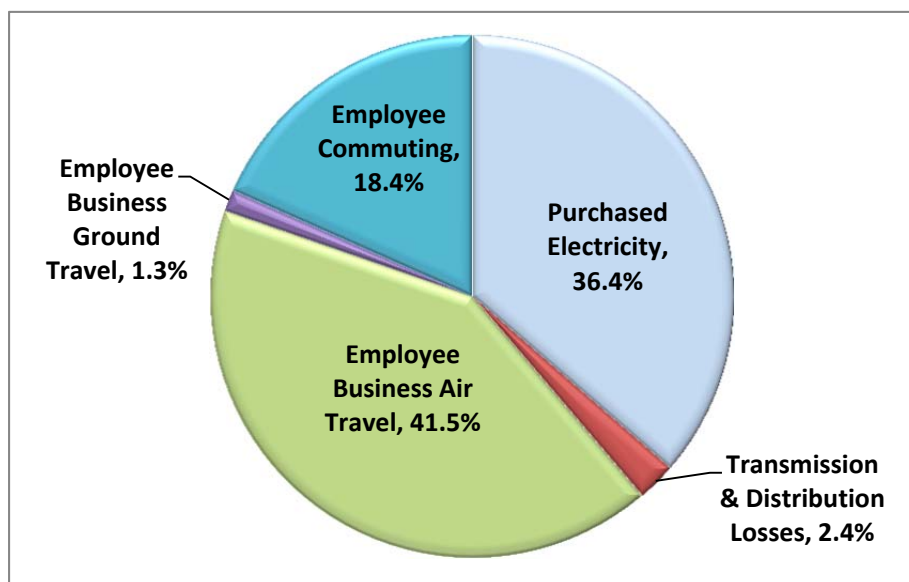
The Foundation’s Senior Sustainability Officer is responsible for the oversight and ultimate success of NSF’s sustainability performance. Other senior management officials, including the Director of the National Science Foundation, have voiced their commitments to environmental sustainability as promulgated under Executive Order (EO) 13514, and associated orders and regulations. NSF employee

performance plans address sustainability under the category of stewardship.

## Performance Review

### Goal 1: Greenhouse Gas Reduction

Each year, the Foundation completes a comprehensive inventory of its greenhouse gas (GHG) emissions. NSF reduced its FY 2013 emissions from Scopes 1 and 2 sources by 21.6% from the FY 2008 baseline, and those from Scope 3 sources by 40.6%. These reductions far surpass NSF's FY 2013 targets. Figure ES-1 shows that the three main contributors to the FY 2013 inventory are employee business air travel, purchased electricity, and employee commuting, which combined account for more than 96% of the total. The main path the Foundation is taking to reduce employee air travel is by increasing the number of panelist grant review meetings conducted virtually. To reduce emissions from employee commuting, NSF is focusing on increasing participation in telework, since so many employees already avail themselves of the public transportation convenient to NSF HQ. In FY 2013, NSF completed negotiations to increase the maximum number of days per week that an employee can telework, and issued the new policy in FY 2014. For information on purchased electricity, see Goal 2.



**Figure ES-1. The Main Contributors to the NSF FY 2013 GHG Inventory**  
(not including those categories accounting for less than 0.1% of the total)

### Goal 2: Sustainable Buildings

Generally, the most important factor reflecting the sustainability of office space is energy intensity. The energy intensity of the NSF Stafford Place I buildings was 14.1% lower than the FY 2008 baseline, as measured by utility meters. NSF data for FY 2003 is not available to make that year the Foundation's baseline, but the federal government goal is a 3% annual reduction in intensity, corresponding to a 15% reduction from FY 2008. Therefore, NSF's 14% reduction over the five years since FY 2008 is somewhat shy of a 15% target. NSF will continue working with the current building owner for improvements, but significant additional energy intensity reductions will not be realized until HQ is relocated to more efficient space in FY 2017.

### Goal 3: Fleet Management

As required under EO 13514, NSF is reporting the two vehicles used by its HQ. The two vehicles operated by NSF HQ used 44.6% less petroleum-based fuel in FY 2013 than in the FY 2005 base year, far

surpassing the 16% target. NSF does not utilize alternative fuels in either vehicle. One of the vehicles, a minivan, is a dual-fuel vehicle capable of operating on E85 (a blend of 85% ethanol with 15% gasoline). However, E85 is not used in the vehicle because there are no fueling stations located sufficiently close to either HQ or its normal routes. NSF does not plan to drive the vehicle the appreciable added distance and time needed to acquire E85, since that will negate the environmental benefits of the E85.

#### **Goal 4: Water Use Efficiency & Management**

The potable water intensity of the Stafford Place I building declined 14.6% in FY 2013, relative to the FY 2007 baseline, as determined from the building's water meter. This reduction exceeds the government target of 12%. The water used for the cooling tower (which is categorized as industrial water) was determined with a dedicated meter to be 18.9% lower than the FY 2010 baseline, well in excess of the government FY 2013 target of 6%. Part of this significant decrease can be attributed to the need for less cooling in FY 2013, due to a milder warm/hot season than the prior two years. As with energy consumption in this GSA-leased space, NSF has few options for efficiency improvements. In the recent past, the building owner has retrofitted some plumbing fixtures with more efficient models.

#### **Goal 5: Pollution Prevention & Waste Reduction**

In FY 2013, of the total amount of non-hazardous solid waste generated by Stafford Place I and II, NSF used recycling to divert approximately 73% of solid waste from disposal (incineration in a municipal waste-to-energy facility). This diversion rate far exceeds the 30% government target for FY 2013. The calculated diversion rate is approximate because the weight of recycled material is not provided by the vendor and must be estimated. However, the weight of solid waste disposed is monitored (by weight), and has been steadily declining every year since FY 2010; in FY 2013, 15% less waste was disposed than in FY 2010. NSF will continue to diligently manage its non-hazardous solid waste to minimize the quantity of waste collected for disposal.

#### **Goal 6: Sustainable Acquisition**

In FY 2014, NSF will provide additional training materials on sustainable acquisition for acquisition personnel, to ensure that sustainability clauses are properly addressed in all relevant contracts.

#### **Goal 7: Electronic Stewardship & Data Centers**

The Foundation uses Blanket Purchasing Agreements (BPAs) to ensure that 100% of its computers, laptops and monitors comply with the requirements of the Electronic Product Environmental Assessment Tool (EPEAT) and ENERGY STAR. In FY 2012, the Foundation eliminated the one off-site data center it had been using, leaving NSF with just one data center, located at its HQ. In FY 2013, NSF further increased the efficiency of its data center operations by significantly reducing the number of servers. When NSF moves to its new location, NSF projects that the amount of building space dedicated to the data center will drop from approximately 7,200 square feet currently to approximately 3,000 square feet.

#### **Goal 8: Renewable Energy**

At this time, NSF neither purchases energy generated from renewable sources nor generates any renewable energy of its own. The Foundation did evaluate the feasibility of rooftop solar for both Stafford Place I and II, but solar was found to be unsuitable for technical reasons as well as being prohibitively expensive. NSF does not have plans in the intermediate term to find other ways to generate renewable energy, for example by leasing land for a project. The mission of NSF HQ has little need for energy generated from renewable sources, and HQ does not consume enough energy to justify such a project.

### **Goal 9: Climate Change Resilience**

Resilience of NSF Headquarters to climate change is built into existing procedures regarding extreme weather events and circumstances that could affect employee health and safety. The agency is engaging in additional planning activities to ensure risks are identified and mitigation strategies are considered.

### **Goal 10: Energy Performance Contracts**

NSF does not report on Goal 10 because it is not subject to the Presidential Performance Contract Challenge.

## **Progress on Administration Priorities**

### **Climate Change Adaptation Plan**

The development of the NSF Climate Change Adaptation Plan is still in its infancy, as the Foundation lays the groundwork among senior management to develop the specific approaches to be used and to identify the stakeholders to engage.

### **Fleet Management Plans**

NSF does not have a formal fleet management plan, since its fleet consists of only two vehicles. However, we do use a system for tracking fuel consumption and mileage.

### **Biobased Purchasing Strategies**

NSF does not have a strategy devoted to only biobased products, but the *National Science Foundation Affirmative Procurement Program for Environmental Protection Agency (EPA) Designated Recycled Content Products* does address biobased products. Most NSF contract actions pertain to research and development, and these are exempt from biopreferred purchasing requirements.

### **Energy Savings Performance Contracts**

NSF HQ occupies only GSA-leased space and it is planning to relocate in three years. Therefore, the Foundation is not planning to award any energy saving performance contracts (ESPCs) for its Headquarters space. The Foundation did work with all stakeholders to examine the potential for ESPCs for its owned infrastructure, all of which is operated by grantees for research.

# Table of Contents

Evaluation of Previous Year’s Strategies.....	1
Size and Scope of Agency Operations.....	4
Table 1: Agency Size & Scope .....	4
Goal 1: Greenhouse Gas Reduction .....	5
Agency Progress toward Scope 1 & 2 GHG Goal .....	5
Figure 1-1 .....	5
Table 1-1: Goal 1 Strategies – Scope 1 & 2 GHG Reductions.....	5
Agency Progress toward Scope 3 GHG Goal.....	7
Figure 1-2 .....	7
Table 1-2: Goal 1 Strategies – Scope 3 GHG Reductions .....	7
Goal 2: Sustainable Buildings.....	9
Agency Progress toward Facility Energy Intensity Reduction Goal.....	9
Figure 2-1 .....	9
Agency Note on Figure 2-1 .....	9
Agency Progress toward Total Buildings Meeting the Guiding Principles .....	10
Figure 2-2 .....	10
Table 2: Goal 2 Strategies – Sustainable Buildings.....	10
Goal 3: Fleet Management.....	11
Agency Progress toward Fleet Petroleum Use Reduction Goal.....	11
Figure 3-1 .....	11
Agency Progress toward Fleet Alternative Fuel Consumption Goal.....	12
Table 3: Goal 3 Strategies – Fleet Management .....	12
Goal 4: Water Use Efficiency and Management.....	13
Agency Progress toward Potable Water Intensity Reduction Goal .....	13
Figure 4-1 .....	13
Table 4: Goal 4 Strategies – Water Use Efficiency & Management.....	14
Goal 5: Pollution Prevention and Waste Reduction.....	15
Agency Progress toward Non-Hazardous Solid Waste Diversion (Non- Construction and Demolition) .....	15
Table 5: Goal 5 Strategies – Pollution Prevention & Waste Reduction .....	16
Goal 6: Sustainable Acquisition.....	17
Agency Progress toward Sustainable Acquisition Goal.....	17
Figure 6-1 .....	17
Table 6: Goal 6 Strategies – Sustainable Acquisition.....	17
Goal 7: Electronic Stewardship and Data Centers .....	19
Agency Progress toward EPEAT, Power Management & End of Life Goals .....	19
Table 7: Goal 7 Strategies – Electronic Stewardship & Data Centers.....	19
Goal 8: Renewable Energy .....	21
Agency Renewable Energy Percentage of Total Electricity Usage .....	21
Table 8: Goal 8 Strategies – Renewable Energy.....	21
Goal 9: Climate Change Resilience .....	23
Agency Climate Change Resilience.....	23
Table 9: Goal 9 Strategies – Climate Change Resilience.....	23
GOAL 10: Energy Performance Contracts .....	25
Appendix A. Acronyms .....	1

## Evaluation of Previous Year's Strategies

Goal	(A) Strategy	(B) Did you implement this strategy? Yes/No	(C) Was the strategy successful for you? Yes/No	(D) Will you use this strategy again next year? (Please explain in 1-2 sentences)
<b>Goal 1: Scope 1&amp;2 GHG Reductions</b>	Reduce grid-supplied electricity consumption by improving/upgrading motors, boilers, heating, ventilation and cooling (HVAC), chillers, compressors, lighting, etc.	Yes	Yes	Yes, NSF will continue to work with the lessor of its HQ space to improve efficiency, although little progress is anticipated until NSF moves to its new location.
<b>Goal 1: Scope 3 GHG Reductions</b>	Reduce employee business air travel	Yes	Yes	Yes, NSF will continue to try to increase the number of panelist grant review meetings conducted virtually, to reduce air travel.
	Develop and deploy employee commuter reduction plan	Yes	Yes	Yes, teleworking will be the main path for decreasing emissions due to commuting.
	Use employee commuting survey to identify opportunities and strategies for reducing commuter emissions	Yes	Yes	Yes, NSF will continue to conduct the GSA commuter survey every two years.
	Increase number of employees eligible for telework and/or the total number of days teleworked	Yes	Yes	Yes, teleworking will be the main path for decreasing commuting emissions.
	Develop and implement bicycle commuter program	Yes	No	No, NSF already encourages bicycle commuting, including providing a bicycle subsidy, but there is insufficient demand to expand the program more.
<b>Goal 2: Sustainable Buildings</b>	Deploy CEQ's Implementing Instructions – Sustainable Locations for Federal Facilities	Yes	Yes	No, since NSF has already incorporated the Instructions in selecting the new building.
<b>Goal 3: Fleet Management</b>	Optimize/Right-size the composition of the fleet (e.g., reduce vehicle size,	Yes	No	No, NSF tried to find a suitable hybrid vehicle to replace the GSA-leased



	eliminate underutilized vehicles, acquire and locate vehicles to match local fuel infrastructure)			Lincoln Continental Town Car used for the Office of the Director. It was unsuccessful because of the limited options available through GSA.
<b>Goal 4: Water Use Efficiency &amp; Management</b>	<i>(all were N/A for NSF)</i>			
<b>Goal 5: Pollution Prevention &amp; Waste Reduction</b>	Reduce waste generation through elimination, source reduction, and recycling	Yes	Yes	Yes, the agency has a successful recycling program and will strive to continually improve it.
<b>Goal 6: Sustainable Acquisition</b>	Update and deploy agency procurement policies and programs to ensure that federally-mandated designated sustainable products are included in all relevant procurements and services	Yes	Yes	Yes, NSF reviews its green purchasing plan and NSF Contracting Manual on an ongoing basis, and will modify them as needed to ensure that NSF internal documentation is consistent with all new Federal Acquisition Regulation (FAR) guidance.
	Include biobased and other FAR sustainability clauses in all applicable construction and other relevant service contracts	Yes	Yes	Yes, NSF will provide additional training materials again in FY 2014.
<b>Goal 7: Electronic Stewardship &amp; Data Centers</b>	Ensure that power management, duplex printing, and other energy efficiency or environmentally preferable options and features are enabled on all eligible electronics and monitor compliance	Yes	Yes	Yes, NSF is in the process of setting up centralized managed print services and eliminating most desktop printers.
	Update and deploy policies to use environmentally sound practices for disposition of all agency excess or surplus electronic products, including use of certified eSteward and/or R2 electronic recyclers, and monitor compliance	Yes	Yes	Yes, NSF will continue to ensure the environmentally sound disposition for 100% of its excess or surplus electronic products.

<p><b>Goal 8: Renewable Energy</b></p>	<p>Work with other agencies to create volume discount incentives for increased renewable energy purchases</p>	<p>Yes</p>	<p>Yes</p>	<p>Yes, NSF will continue to participate in the Federal Interagency Sustainability Workgroup and Sustainable Acquisition and Materials Management Workgroup, and will work with these groups on options for volume discounts, if one or both groups take up the topic.</p>
<p><b>Goal 9: Climate Change Resilience</b></p>	<p>Update agency emergency response procedures and protocols to account for projected climate change, including extreme weather events</p>	<p>Yes</p>	<p>Yes</p>	<p>Yes, NSF will follow any climate change guidelines contained in the next update of the Northern Virginia Hazard Mitigation Plan.</p>
	<p>Ensure that agency climate adaptation and resilience policies and programs reflect best available current climate change science, updated as necessary</p>	<p>Yes</p>	<p>Yes</p>	<p>Yes, all vulnerability and risk assessments conducted by NSF will be based on recent scientific projections of climate change.</p>

## Size and Scope of Agency Operations

**Table 1: Agency Size & Scope**

<b>Agency Size and Scope</b>	<b>FY 2012</b>	<b>FY 2013</b>
Total # Employees as Reported in the President's Budget	1,663	1,657
Total Acres Land Managed	0	0
Total # Buildings Owned (as per the Federal Real Property Profile)	0	0
Total # Buildings Leased (GSA and Non-GSA Lease)	4	4
Total Building Gross Square Feet (GSF)	0.608	0.608
Operates in Number of Locations Throughout U.S.	1	1
Operates in Number of Locations Outside of U.S.	0	0
Total # Fleet Vehicles Owned	0	0
Total # Fleet Vehicles Leased	2	2
Total # Exempted-Fleet Vehicles	0	0
Total Amount Contracts Awarded as Reported in FPDS (\$Millions)	\$421	\$437

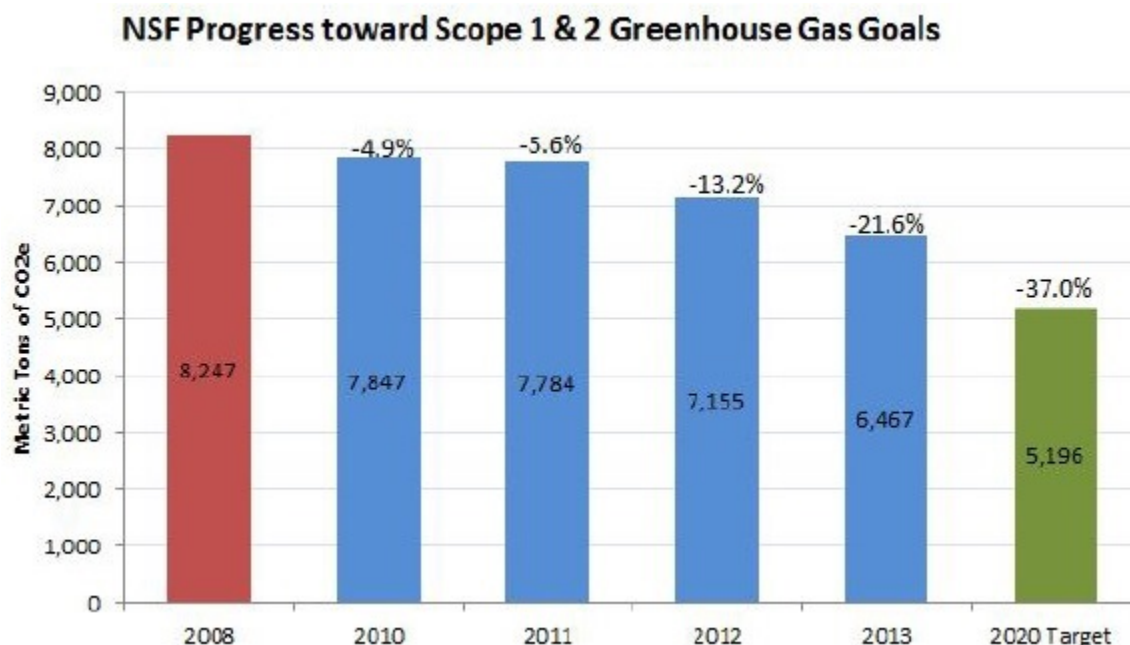
## Goal 1: Greenhouse Gas Reduction

### Agency Progress toward Scope 1 & 2 GHG Goal

EO 13514 requires each agency establish a Scope 1 & 2 GHG emission reduction target to be achieved by FY 2020. The red bar represents the agency’s FY 2008 baseline. The green bar represents the FY 2020 target reduction. The blue bars represent annual agency progress towards achieving this target. The percentage at the top of each bar represents the reduction or increase from the FY 2008 baseline. A negative percentage value indicates that the emissions have decreased compared to the 2008 baseline.

**Figure 1-1**

INSTRUCTIONS: Agencies should not amend or edit this figure. If changes are necessary, contact CEQ.



**Table 1-1: Goal 1 Strategies – Scope 1 & 2 GHG Reductions**

INSTRUCTIONS: In Table 1-1 below, list ONLY the top five priority strategies that the agency will implement in FY 2014 to pursue Goal 1 Scope 1 & 2 GHG reductions. For each agency-level strategy listed below, select the appropriate response from the drop-down menu. If the selection is not applicable (“NA”) or “No”, an explanation must be provided in the Strategy Narrative column (C) as to why the agency will not implement this strategy. If the selection is “Yes”, provide in column (C) a description on how the strategy will be implemented and in column (D) provide specific targets/metrics and milestones to measure agency progress/success. DO NOT DELETE ANY STRATEGIES LISTED IN COLUMN (A). Agencies may make minor changes to a column (A) strategy if needed to enable the agency to select that strategy as a FY 2014 priority. If necessary, agencies may add additional strategies into the blank rows provided in column (A) in order to present five priority strategies.

(A)	(B)	(C)	(D)
<b>Will the agency implement the following strategies to achieve this goal?</b>	<b>Top Five? Yes/ No/</b>	<b>Strategy Narrative</b>  (100 word limit)	<b>Specific targets/metrics to measure strategy success including milestones to be</b>

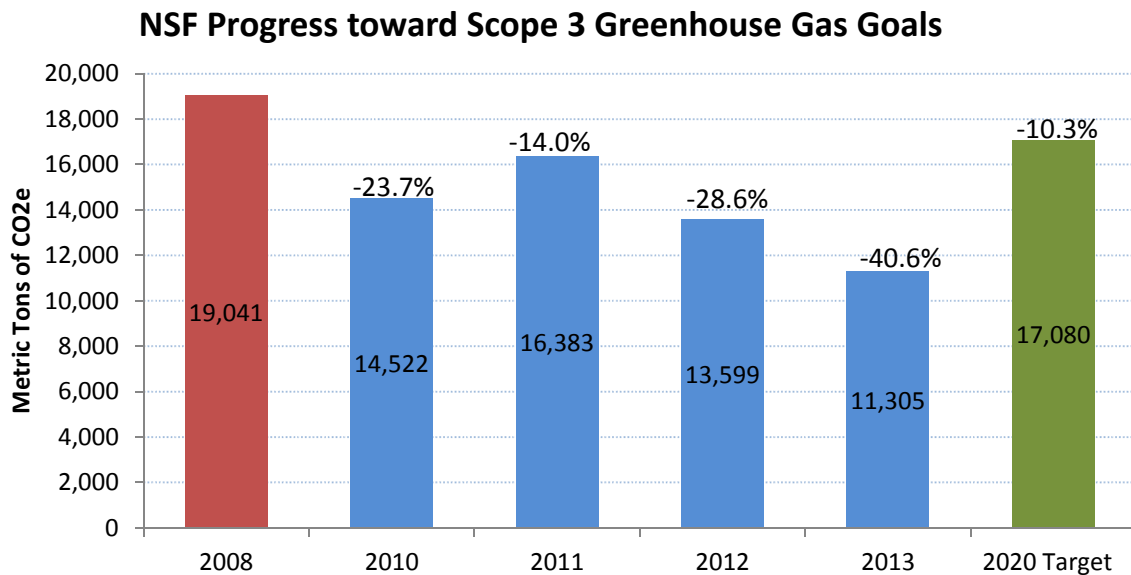
	NA		achieved in next 12 months
Use the FEMP GHG emission report to identify/target high emission categories and implement specific actions to resolve high emission areas identified.	Yes	The inventory shows that 99.9% of NSF's Scopes 1 and 2 GHG emissions are from purchased electricity. Actions are identified lower in the table on reducing grid-supplied electricity consumption.	Energy intensity reduced 6.5% in FY 2014 relative to the FY <b>2008</b> baseline (NSF does not have data for a FY 2003 baseline).
Ensure that all major renovations and new building designs are 30% more efficient than applicable code.	N/A	NSF only occupies two GSA-leased buildings, one of which is fully serviced.	
Implement in facilities covered by EISA 432 all lifecycle cost effective energy conservation measures identified.	No	Of NSF's two GSA-leased buildings, one is fully serviced (exempt from EISA), and the other is partially serviced, severely limiting NSF's ability to cost-effectively implement building improvements.	
Reduce on-site fossil-fuel consumption by installing more efficient boilers, generators, furnaces, etc. and/or use renewable fuels.	N/A	Only a vanishingly small quantity of NSF's GHG emissions is due to on-site fossil fuel combustion.	
Reduce grid-supplied electricity consumption by improving/upgrading motors, boilers, HVAC, chillers, compressors, lighting, etc.	Yes	Based on a 2010 energy audit that determined NSF space to be over-lighted, NSF is examining the possibility of removing some overhead lamps.	Energy intensity reduced 6.5% in FY 2014 relative to the FY <b>2008</b> baseline (NSF does not have data for a FY 2003 baseline).
Employ operations and management best practices for energy consuming and emission generating equipment.	N/A	NSF only occupies two GSA-leased buildings, one of which is fully serviced.	
Install building utility meters and benchmark performance to track energy and continuously optimize performance.	Yes	Both buildings are metered and their energy consumption managed by trained energy managers. One of the buildings has an ENERGY STAR rating.	Energy intensity reduced 6.5% in FY 2014 relative to the FY <b>2008</b> baseline (NSF does not have data for a FY 2003 baseline).

## Agency Progress toward Scope 3 GHG Goal

EO 13514 requires each agency establish a Scope 3 GHG emission reduction target to be achieved by FY 2020. The red bar represents the agency’s FY 2008 baseline. The green bar represents the FY 2020 reduction target. The blue bars represent annual agency progress on achieving this target. The percentage at the top of each bar represents the reduction or increase from the FY 2008 baseline. A negative percentage value indicates that the emissions have been decreased compared to the FY 2008 baseline.

**Figure 1-2**

INSTRUCTIONS: Agencies should not amend or edit this figure. If changes are necessary, contact CEQ.



**Table 1-2: Goal 1 Strategies – Scope 3 GHG Reductions**

INSTRUCTIONS: In Table 1-2 below, list ONLY the top five priority strategies that the agency will pursue in FY 2014 to achieve Goal 1 Scope 3 GHG reductions. For each agency-level strategy listed below, select the appropriate response from the drop-down menu. If the selection is not applicable (“NA”) or “No”, an explanation must be provided in the Strategy Narrative column (C) as to why the agency will not implement this strategy. If the selection is “Yes”, provide in column (C) a description on how the strategy will be implemented and in column (D) provide specific targets/metrics and milestones to measure agency progress/success. DO NOT DELETE ANY STRATEGIES LISTED IN COLUMN (A). Agencies may make minor changes to a column (A) strategy if needed to enable the agency to select that strategy as a FY 2014 priority. If necessary, agencies may add additional strategies into the blank rows provided in column (A) in order to present five priority strategies.

(A)	(B)	(C)	(D)
<b>Will the agency implement the following strategies to achieve this goal?</b>	<b>Top Five? Yes/ No/ NA</b>	<b>Strategy Narrative</b> (100 word limit)	<b>Specific targets/metrics to measure strategy success including milestones to be achieved in next 12 months</b>

Develop and deploy employee commuter reduction plan.	Yes	NSF already has in place the mass transit subsidy program for the Metro system, which is widely used. NSF also has a program to promote teleworking (see telework strategy below).	A 10% decline in vehicle miles travelled for commuting, from FY 2013 to FY 2015 (when NSF will next conduct the biennial commuter survey).
Reduce employee business ground travel.	No	Emissions from employee business ground travel are not a high-level target because they account for only 1.3% of the agency's total GHG emissions (about 2% of Scope 3 emissions).	
Reduce employee business air travel.	Yes	The vast majority of NSF's air travel emissions are due to the business travel of its expert panelists for reviewing proposals. NSF provided all offices with video teleconferencing software and training, and is tracking avoided air travel and associated savings from reduced travel and panel reimbursement costs.	A 5% increase in the use of enhanced technology videoconferencing (where all participants are meeting virtually) from last year (FY 2013 to FY 2014).
Use employee commuting survey to identify opportunities and strategies for reducing commuter emissions.	Yes	NSF first used the GSA Carbon Footprint Tool Scope 3 Commuter Survey in FY 2011, and intends to repeat it every other year, as recommended. NSF used its analysis of the FY 2011 and FY 2013 results to inform its strategies for reducing commuting emissions, and will continue to analyze the results from commuter surveys to inform future strategies.	A 10% decline in vehicle miles travelled for commuting, from FY 2013 to FY 2015 (when NSF will next conduct the biennial commuter survey).
Increase number of employees eligible for telework and/or the total number of days teleworked.	Yes	In FY 2013, NSF completed negotiations to increase the maximum number of days per week that an employee can telework, and issued the new policy in FY 2014.	A 10% decline in vehicle miles travelled for commuting, from FY 2013 to FY 2015 (when NSF will next conduct the biennial commuter survey).
Develop and implement bicycle commuter program.	N/A	NSF already encourages bicycle commuting, including providing a bicycle subsidy. The Foundation does not plan to expand the program because there is insufficient demand since most employees prefer to use	

		mass transit, given the urban location of the facility and its distance one block from a Metro station.	
Provide bicycle commuting infrastructure.	N/A	NSF already provides infrastructure for bicycle commuters.	

## Goal 2: Sustainable Buildings

### Agency Progress toward Facility Energy Intensity Reduction Goal

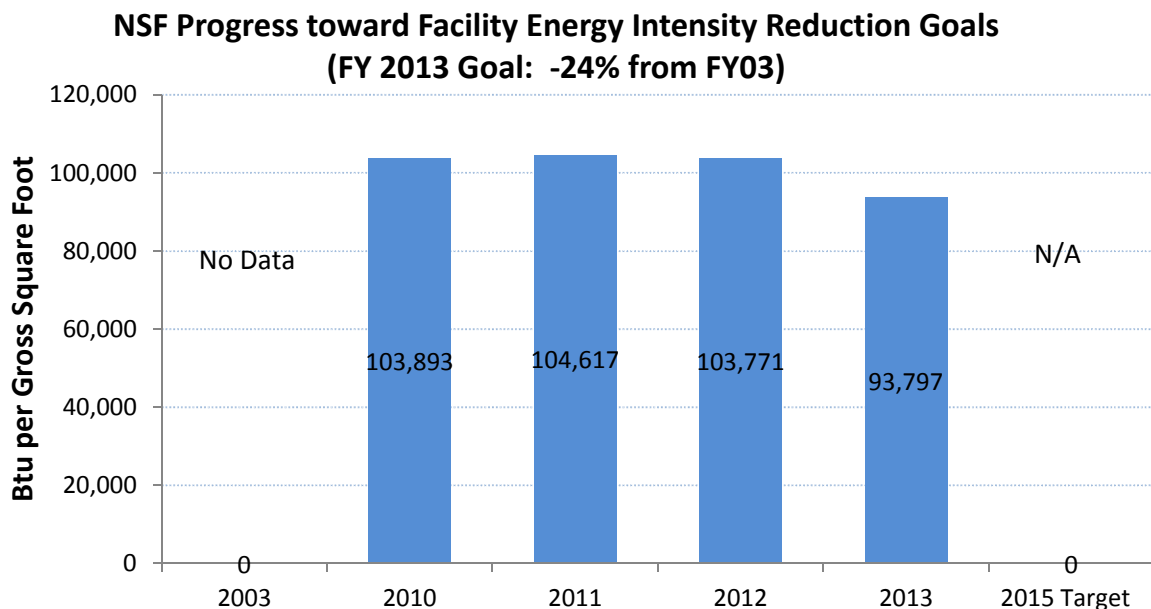
EO 13514 Section 2 requires that agencies consider building energy intensity reductions. Further, the Energy Independence and Security Act of 2007 (EISA) requires each agency to reduce energy intensity 30 percent by FY 2015 as compared to the FY 2003 baseline. Agencies are expected to reduce energy intensity by 3 percent annually to meet the goal. The red bar represents the agency's FY 2003 baseline. The green bar represents the FY 2015 target reduction. The blue bars show annual agency progress on achieving this target. The percentage at the top of each bar represents the reduction or increase from the FY 2003 baseline. A negative percentage value indicates that the energy intensity has been decreased compared to the FY 2003 baseline.

#### Figure 2-1

INSTRUCTIONS: Agencies should not amend or edit this figure. If changes are necessary, contact CEQ.

#### Agency Note on Figure 2-1

The U.S. Government goals for facility energy intensity reduction are based on an FY 2003 baseline, but NSF does not have FY 2003 data. Therefore, CEQ provides the numbers for energy intensity on the graph, but no percentages and no FY 2015 target since these values are supposed to be relative to FY 2003.





## Agency Progress toward Total Buildings Meeting the Guiding Principles

EO 13514 requires that by FY 2015, 15 percent of agencies' new, existing, and leased buildings greater than 5,000 square feet meet the Guiding Principles. In order to meet the FY 2015 goal, agencies should have increased the percentage of conforming buildings by approximately 2 percent annually from their FY 2007 baseline. The green bar represents the FY 2015 target. The blue bars represent annual agency progress on achieving this target.

### Figure 2-2

*There is no Figure 2-2 for NSF because the Guiding Principles are not applicable to NSF, since its buildings are GSA leases.*

## Table 2: Goal 2 Strategies – Sustainable Buildings

**INSTRUCTIONS:** In Table 2 below, list ONLY the top five priority strategies that the agency will pursue in FY 2014 to achieve Goal 2. For each agency-level strategy listed below, select the appropriate response from the drop-down menu. If the selection is not applicable (“NA”) or “No”, an explanation must be provided in the Strategy Narrative column (C) as to why the agency will not implement this strategy. If the selection is “Yes”, provide in column (C) a description on how the strategy will be implemented and in column (D) provide specific targets/metrics and milestones to measure agency progress/success. **DO NOT DELETE ANY STRATEGIES LISTED IN COLUMN (A).** Agencies may make minor changes to a column (A) strategy if needed to enable the agency to select that strategy as a FY 2014 priority. If necessary, agencies may add additional strategies into the blank rows provided in column (A) in order to present five priority strategies.

(A) <b>Will the agency implement the following strategies to achieve this goal?</b>	(B) <b>Top Five? Yes/ No/ NA</b>	(C) <b>Strategy Narrative</b>  (100 word limit)	(D) <b>Specific targets/metrics to measure strategy success including milestones to be achieved in next 12 months</b>
Incorporate green building specifications into all new construction and major renovation projects.	N/A	NSF does no construction or major renovation projects.	
Redesign or lease interior space to reduce energy use by daylighting, space optimization, sensors/control system installation, etc.	N/A	NSF only occupies two GSA-leased buildings, one of which is fully serviced.	
Deploy CEQ's Implementing Instructions –Sustainable Locations for Federal Facilities.	N/A	GSA has already followed the principles of the Sustainable Locations for Federal Facilities in selecting the new NSF HQ lease.	
Include in every construction contract all applicable sustainable acquisition requirements for recycled, biobased,	N/A	NSF does no construction projects.	

energy efficient and environmentally preferable products.			
Develop and deploy energy and sustainability training for all facility and energy managers.	N/A	NSF only occupies two GSA-leased buildings, and both have trained facility and energy managers.	

### Goal 3: Fleet Management

#### Agency Progress toward Fleet Petroleum Use Reduction Goal

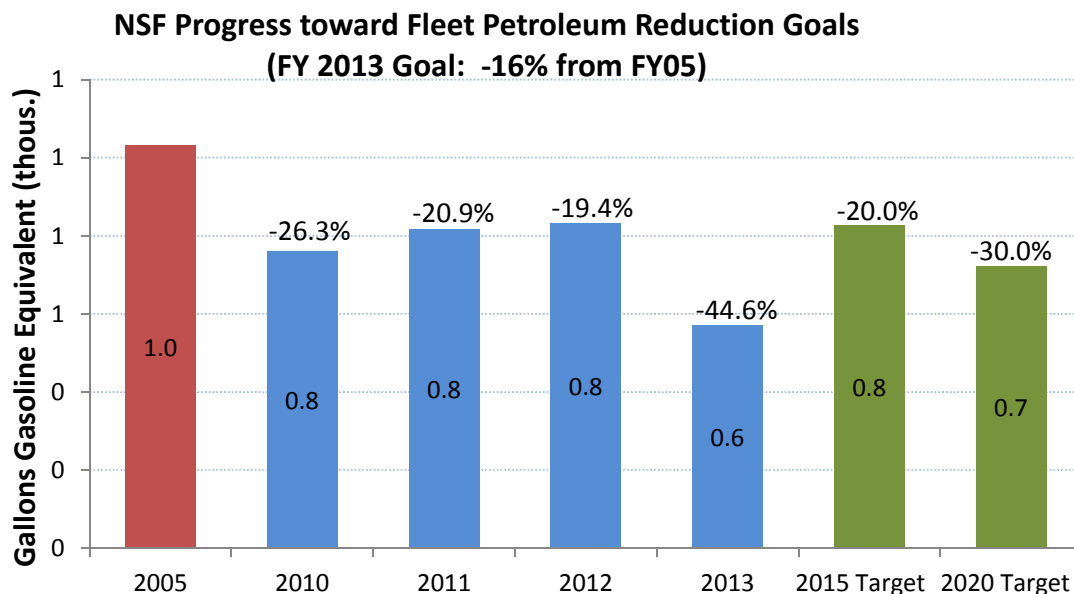
EO 13514 and the Energy Independence and Security Act of 2007 (EISA) require that by FY 2015 agencies reduce fleet petroleum use by 20 percent compared to a FY 2005 baseline. Agencies are expected to achieve at least a 2 percent annual reduction and a 30 percent reduction is required by FY 2020. The red bar represents the agency’s FY 2005 baseline. The green bars represent the FY 2015 and FY 2020 target reductions. The blue bars represent annual agency progress on achieving these targets. The percentage at the top of each bar represents the reduction or increase from the FY 2005 baseline. A negative percentage indicates a decrease in fleet petroleum use.

#### Figure 3-1

INSTRUCTIONS: Agencies should not amend or edit this figure. If changes are necessary, contact CEQ.

#### Agency Note on Figure 3-1

Regarding the gallon gasoline equivalent unit for Figure 3-1, this is needed because total fuel consumption is a sum of different types of fuel, such as gasoline and diesel. In order to add them up it is necessary to normalize them in terms of their energy content (British thermal units, or Btu, per gallon). Therefore, all fuels other than gasoline are multiplied by the appropriate factor to convert their volumes into a gallon of gasoline of the equivalent energy, or gallon gasoline equivalent.



## Agency Progress toward Fleet Alternative Fuel Consumption Goal

EO 13423 requires that agencies increase total alternative fuel consumption by 10 percent annually from the prior year starting in FY 2005. By FY 2015, agencies must increase alternative fuel use by 159.4 percent, relative to FY 2005. The red bar represents the agency’s FY 2005 baseline. The green bar represents the FY 2015 target. The blue bars represent annual agency progress on achieving this target. The percentage at the top of each bar represents the reduction or increase from the FY 2005 baseline. A negative percentage indicates a decrease in fleet alternative fuel use.

### Table 3: Goal 3 Strategies – Fleet Management

INSTRUCTIONS: In Table 3 below, list ONLY the top five priority strategies that the agency will pursue in FY 2014 to achieve Goal 3. For each agency-level strategy listed below, select the appropriate response from the drop-down menu. If the selection is not applicable (“NA”) or “No”, an explanation must be provided in the Strategy Narrative column (C) as to why the agency will not implement this strategy. If the selection is “Yes”, provide in column (C) a description on how the strategy will be implemented and in column (D) provide specific targets/metrics and milestones to measure agency progress/success. DO NOT DELETE ANY STRATEGIES LISTED IN COLUMN (A). Agencies may make minor changes to a column (A) strategy if needed to enable the agency to select that strategy as a FY 2014 priority. If necessary, agencies may add additional strategies into the blank rows provided in column (A) in order to present five priority strategies.

(A) <b>Will the agency implement the following strategies to achieve this goal?</b>	(B) <b>Top Five? Yes/ No/ NA</b>	(C) <b>Strategy Narrative</b>  (100 word limit)	(D) <b>Specific targets/metrics to measure strategy success including milestones to be achieved in next 12 months</b>
Optimize/Right-size the composition of the fleet (e.g., reduce vehicle size, eliminate underutilized vehicles, acquire and locate vehicles to match local fuel infrastructure).	No	NSF only has two vehicles. NSF tried to find a suitable hybrid vehicle to replace the GSA-leased Lincoln Continental Town Car used for the Office of the Director. It was unsuccessful because of the limited options available through GSA.	
Reduce miles traveled (e.g., share vehicles, improve routing with telematics, eliminate trips, improve scheduling, use shuttles, etc.).	N/A	Having only two vehicles, which are devoted to specific, mission-related uses, a HQ strategy to reduce miles travelled would yield negligible benefit. In terms of vehicle occupancy, NSF HQ is already efficient, as most trips are made with groups of people.	
Acquire only highly fuel-efficient, low greenhouse gas-emitting vehicles and alternative	N/A	NSF HQ has no plans to acquire more vehicles of any type.	

fuel vehicles.			
Increase utilization of alternative fuel in dual-fuel vehicles.	No	One of NSF HQ's two vehicles is an E85 dual-fuel vehicle. The vehicle uses no E85 because there is no fueling station located sufficiently close to either HQ or its normal routes. NSF does not plan to drive the vehicle the appreciable added distance and time needed to acquire E85, since that will negate the environmental benefits of the E85.	
Use a Fleet Management Information System to track fuel consumption throughout the year for agency-owned, GSA-leased, and commercially-leased vehicles.	N/A	NSF does not have a formal fleet management plan, since its fleet consists of only two vehicles. However, the agency does use a system for tracking fuel consumption and mileage.	
Increase GSA leased vehicles and decrease agency-owned fleet vehicles, when cost effective.	N/A	NSF HQ does not own vehicles.	

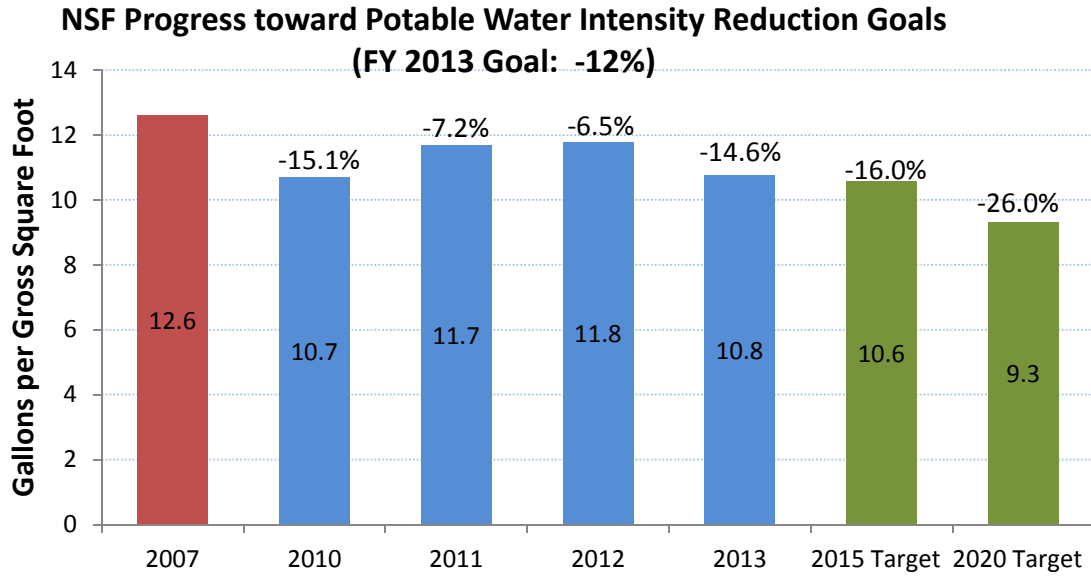
## Goal 4: Water Use Efficiency and Management

### Agency Progress toward Potable Water Intensity Reduction Goal

EO 13514 requires agencies to reduce potable water intensity by 2 percent annually through FY 2020 compared to an FY 2007 baseline. A 16 percent reduction is required by FY 2015 and a 26 percent reduction is required by FY 2020. The red bar represents the agency's FY 2007 baseline. The green bars represent the FY 2015 and FY 2020 target reductions. The blue bars represent annual agency progress on achieving these targets. The percentage at the top of each bar represents the reduction or increase from the FY 2007 baseline. A negative percentage value indicates that potable water use intensity has decreased compared to the FY 2007 baseline.

#### Figure 4-1

INSTRUCTIONS: Agencies should not amend or edit this figure. If changes are necessary, contact CEQ.



**Table 4: Goal 4 Strategies – Water Use Efficiency & Management**

INSTRUCTIONS: In Table 4 below, list ONLY the top five priority strategies that the agency will pursue in FY 2014 to achieve Goal 4. For each agency-level strategy listed below, select the appropriate response from the drop-down menu. If the selection is not applicable (“NA”) or “No”, an explanation must be provided in the Strategy Narrative column (C) as to why the agency will not implement this strategy. If the selection is “Yes”, provide in column (C) a description on how the strategy will be implemented and in column (D) provide specific targets/metrics and milestones to measure agency progress/success. DO NOT DELETE ANY STRATEGIES LISTED IN COLUMN (A). Agencies may make minor changes to a column (A) strategy if needed to enable the agency to select that strategy as a FY 2014 priority. If necessary, agencies may add additional strategies into the blank rows provided in column (A) in order to present five priority strategies.

(A) Will the agency implement the following strategies to achieve this goal?	(B) Top Five? Yes/ No/ NA	(C) Strategy Narrative  (100 word limit)	(D) Specific targets/metrics to measure strategy success including milestones to be achieved in next 12 months
Purchase and install water efficient technologies (e.g., WaterSense).	Yes	NSF only occupies two GSA-leased buildings, one of which is fully serviced, but it will continue to encourage the lessor of the building that is not fully serviced to implement the water efficiency recommendations from an audit conducted in 2010.	At least a 14% reduction in potable water intensity from FY 2007 by the end of FY 2014.
Prepare and implement a water asset management plan to maintain desired	N/A	NSF HQ does not own any water consuming assets.	

level of service at lowest life cycle cost (for best practices from the EPA, go to <a href="http://go.usa.gov/KvbF">http://go.usa.gov/KvbF</a> )			
Minimize outdoor water use and use alternative water sources as much as possible.	N/A	NSF does not irrigate at its HQ facility.	
Design and deploy water closed-loop, capture, recharge, and/or reclamation systems.	N/A	NSF has no landscaping at its HQ to irrigate with reclaimed water. Apart from the cooling towers, which recirculate water, NSF HQ has no industrial systems to offer opportunities for savings through closed-loop systems or reclaimed water.	
Install advanced meters to measure and monitor (1) potable and (2) industrial, landscaping and agricultural water use.	No	Standard mechanical meters are already installed to measure consumption by both NSF HQ indoor space and the NSF HQ cooling towers. Being in leased buildings, NSF will not have control over this until it moves into new space, anticipated for FY 2017. NSF has no other industrial, landscaping or agricultural water use to measure.	
Develop and implement programs to educate employees about methods to minimize water use	Yes	NSF is in the process of setting up an internal SharePoint site with links to sources on information and guidance on sustainability – all topics covered in EO 13514, including water.	An e-mail sent to all employees in FY 2014 announcing the launch of the site.
Assess the interconnections and dependencies of energy and water on agency operations, particularly climate change's effects on water which may impact energy use	No	Although energy is needed in the supply and distribution of water, NSF's water consumption is too small to have an appreciable impact on energy consumption.	

## Goal 5: Pollution Prevention and Waste Reduction

### Agency Progress toward Non-Hazardous Solid Waste Diversion (Non-Construction and Demolition)

EO 13514 requires that by FY 2015 agencies annually divert at least 50 percent of non-hazardous solid waste from disposal, excluding construction and demolition debris.

**Table 5: Goal 5 Strategies – Pollution Prevention & Waste Reduction**

INSTRUCTIONS: In Table 5 below, list ONLY the top five priority strategies that the agency will pursue in FY 2014 to achieve Goal 5. For each agency-level strategy listed below, select the appropriate response from the drop-down menu. If the selection is not applicable (“NA”) or “No”, an explanation must be provided in the Strategy Narrative column (C) as to why the agency will not implement this strategy. If the selection is “Yes”, provide in column (C) a description on how the strategy will be implemented and in column (D) provide specific targets/metrics and milestones to measure agency progress/success. DO NOT DELETE ANY STRATEGIES LISTED IN COLUMN (A). Agencies may make minor changes to a column (A) strategy if needed to enable the agency to select that strategy as a FY 2014 priority. If necessary, agencies may add additional strategies into the blank rows provided in column (A) in order to present five priority strategies.

(A) <b>Will the agency implement the following strategies to achieve this goal?</b>	(B) <b>Top Five? Yes/ No/ NA</b>	(C) <b>Strategy Narrative</b>  (100 word limit)	(D) <b>Specific targets/metrics to measure strategy success including milestones to be achieved in next 12 months</b>
Eliminate, reduce, or recover refrigerants and other fugitive emissions.	N/A	The only fugitive emissions NSF HQ has are from the HVAC equipment of the HQ buildings it leases.	
Reduce waste generation through elimination, source reduction, and recycling.	Yes	All facilities occupied by NSF HQ staff have active recycling programs. No solid waste from HQ is disposed in landfills because all of it is incinerated by a waste-to-energy facility. The agency will seek to improve elimination, source reduction, and recycling through more extensive employee outreach.	At least 40% diversion for FY 2014, defined as the amount of material diverted from the waste stream divided by the total amount generated.
Implement integrated pest management and improved landscape management practices to reduce and eliminate the use of toxic and hazardous chemicals/materials.	N/A	NSF HQ does not manage landscaping. Any pest control activities for the GSA-leased HQ buildings are handled by the landlord per the lease in accordance with the integrated pest management standards established by GSA.	
Establish a tracking and reporting system for construction and demolition debris elimination.	N/A	NSF HQ does not conduct construction and demolition activities.	
Develop/revise Agency	N/A	NSF HQ does not have a	

Chemicals Inventory Plans and identify and deploy chemical elimination, substitution, and/or management opportunities.		Chemicals Inventory Plan because it does not routinely use significant quantities of toxic or hazardous chemicals. Where feasible, the property owner cleaning staff uses non-toxic cleaners and products. Small quantities of corrosive cleaners and bleach can be found in the buildings and are used where appropriate non-toxic cleaners and products are not available. The building owners do have 500 gallons of diesel fuel stored safely in the basement of both buildings for use in the back-up generators.	
Take inventory of current hydrofluorocarbon (HFC) use and purchases	Yes	NSF will work with its HQ lessor to identify and quantify the sources of fugitive refrigerants	Inclusion of HFCs (if any used) in the FY 2014 GHG inventory
Require high-level waiver or contract approval for any agency use of HFCs	N/A	The only use of HFCs by NSF HQ is in the HVAC equipment for the leased buildings occupied by HQ. The equipment is operated and maintained by the building owner.	
Ensure HFC management training and recycling equipment are available	N/A	All HFCs are handled by the lessor's HVAC service provider.	

## Goal 6: Sustainable Acquisition

### Agency Progress toward Sustainable Acquisition Goal

EO 13514 requires agencies to advance sustainable acquisition and ensure that 95 percent of applicable new contract actions meet federal mandates for acquiring products that are energy efficient, water efficient, biobased, environmentally preferable, non-ozone depleting, recycled content, or are non-toxic or less toxic alternatives, where these products meet performance requirements. To monitor performance, agencies perform quarterly reviews of at least 5 percent of applicable new contract actions to determine if sustainable acquisition requirements are included.

#### Figure 6-1

*{There is no Figure 6-1 for NSF because it is based on a manual review of 5% of agency contract actions, which NSF is not required to do since it is not a scorecard agency.}*

### Table 6: Goal 6 Strategies – Sustainable Acquisition

INSTRUCTIONS: In Table 6 below, list ONLY the top five priority strategies that the agency will pursue in FY 2014 to achieve Goal 6. For each agency-level strategy listed below, select the appropriate response



from the drop-down menu. If the selection is not applicable (“NA”) or “No”, an explanation must be provided in the Strategy Narrative column (C) as to why the agency will not implement this strategy. If the selection is “Yes”, provide in column (C) a description on how the strategy will be implemented and in column (D) provide specific targets/metrics and milestones to measure agency progress/success. DO NOT DELETE ANY STRATEGIES LISTED IN COLUMN (A). Agencies may make minor changes to a column (A) strategy if needed to enable the agency to select that strategy as a FY 2014 priority. If necessary, agencies may add additional strategies into the blank rows provided in column (A) in order to present five priority strategies.

(A) <b>Will the agency implement the following strategies to achieve this goal?</b>	(B) <b>Top Five? Yes/ No/ NA</b>	(C) <b>Strategy Narrative</b>  (100 word limit)	(D) <b>Specific targets/metrics to measure strategy success including milestones to be achieved in next 12 months</b>
Update and deploy agency procurement policies and programs to ensure that federally- mandated designated sustainable products are included in all relevant procurements and services.	Yes	The NSF green purchasing plan and NSF Contracting Manual include policies and procedures for ensuring that sustainable acquisition requirements are incorporated into agency procurements through specification reviews and inclusion of applicable FAR clauses relating to sustainability. NSF commits to updating its green purchasing plan and Contracting Manual as needed.	Modification of the plan and manual as needed to ensure that NSF internal documentation is consistent with all new FAR guidance.
Deploy corrective actions to address identified barriers to increasing sustainable procurements with special emphasis on biobased purchasing.	N/A	NSF has not identified barriers to increasing sustainable procurement because it has not been able to use the Federal Procurement Data System to fully track sustainability performance. Since NSF is not a scorecard agency, it is not required to conduct a review of 5% of contract actions for their compliance with sustainable acquisition requirements.	
Include biobased and other FAR sustainability clauses in all applicable construction and other relevant service contracts.	Yes	NSF already provides sample language pertaining to FAR sustainability clauses for use in preparing contracts, but the agency will provide additional	Additional training materials provided in FY 2014.

		training materials on sustainable acquisition.	
Review and update agency specifications to include and encourage biobased and other designated green products to enable meeting sustainable acquisition goals.	N/A	NSF does not develop product specifications.	
Use Federal Strategic Sourcing Initiatives, such as Blanket Purchase Agreements (BPAs) for office products and imaging equipment, which include sustainable acquisition requirements.	No	NSF already has BPAs that include sustainable acquisition requirements for computers (both desktops and laptops) and monitors. NSF strongly encourages the use of the GSA Federal Strategic Sourcing Initiative Office Supply BPA.	
Report on sustainability compliance in contractor performance reviews.	N/A	This strategy as written is not relevant for NSF, but in its place NSF has added a new strategy in the next row.	
Annually track and analyze the energy and water intensity performance of the long-term NSF grantee organizations that operate NSF-owned facilities larger than 10,000 GSF.	Yes	NSF annually tracks and analyzes energy and water intensity of eight grantee organizations.	An analysis of energy and water intensity over time (base years plus FY10 through FY13) will be completed no later than summer 2014.

## Goal 7: Electronic Stewardship and Data Centers

### Agency Progress toward EPEAT, Power Management & End of Life Goals

EO 13514 requires agencies to promote electronics stewardship by: ensuring procurement preference for EPEAT-registered products; implementing policies to enable power management, duplex printing, and other energy-efficient features; employing environmentally sound practices with respect to the disposition of electronic products; procuring Energy Star and FEMP designated electronics; and, implementing best management practices for data center operations.

### Table 7: Goal 7 Strategies – Electronic Stewardship & Data Centers

**INSTRUCTIONS:** In Table 7 below, list ONLY the top five priority strategies that the agency will pursue in FY 2014 to achieve Goal 7. For each agency-level strategy listed below, select the appropriate response from the drop-down menu. If the selection is not applicable (“NA”) or “No”, an explanation must be provided in the Strategy Narrative column (C) as to why the agency will not implement this strategy. If the selection is “Yes”, provide in column (C) a description on how the strategy will be implemented and in column (D) provide specific targets/metrics and milestones to measure agency progress/success. **DO NOT DELETE ANY STRATEGIES LISTED IN COLUMN (A).** Agencies may make minor changes to a

column (A) strategy if needed to enable the agency to select that strategy as a FY 2014 priority. If necessary, agencies may add additional strategies into the blank rows provided in column (A) in order to present five priority strategies.

(A) <b>Will the agency implement the following strategies to achieve this goal?</b>	(B) <b>Top Five? Yes/ No/ NA</b>	(C) <b>Strategy Narrative</b> (100 word limit)	(D) <b>Specific targets/metrics to measure strategy success including milestones to be achieved in next 12 months</b>
Identify agency “Core” and “Non-Core” Data.	N/A	The core/non-core designation does not apply to NSF HQ because its one data center is slated for closure, pending the move to the new HQ location.	
Consolidate 40% of agency non-core data centers.	N/A	NSF HQ has only one data center, which is slated for closure.	
Optimize agency Core Data Centers across total cost of ownership metrics.	N/A	NSF HQ has only one data center, which is slated for closure.	
Ensure that power management, duplex printing, and other energy efficiency or environmentally preferable options and features are enabled on all eligible electronics and monitor compliance.	Yes	For print management, NSF is in the process of moving to a Managed Print Services system with centralized printing, where duplex printing is the default and most desktop printers will be eliminated.	Managed Print Services system in place in FY 2014 or FY 2015.
Update and deploy policies to use environmentally sound practices for disposition of all agency excess or surplus electronic products, including use of certified eSteward and/or R2 electronic recyclers, and monitor compliance.	Yes	NSF HQ already ensures the environmentally sound disposition for 100% of its excess or surplus electronic products—either through donations for reuse, GSA Xcess, or certified recyclers—and it will continue to do so.	No end-of-life electronics disposed through non-Certified Recyclers.
Ensure acquisition of 95% EPEAT registered and 100% of ENERGY STAR	Yes	All NSF HQ offices are already required to purchase personal computers (desktops and laptops)	Since the main impact of this strategy is on energy consumption,

qualified and FEMP designated electronic office products.		and monitors through one of several BPAs that only offer equipment that is registered with EPEAT and qualified as ENERGY STAR. For other electronic office products, NSF strongly encourages the use of the GSA Federal Strategic Sourcing Initiative Office Supply BPA.	NSF will measure success on it with its energy intensity metric, to reduce energy intensity 6.5% in FY 2014 relative to the FY 2008 baseline.
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## Goal 8: Renewable Energy

### Agency Renewable Energy Percentage of Total Electricity Usage

EO 13514 requires that agencies increase use of renewable energy. Further, the Energy Policy Act of 2005 requires agencies to increase renewable energy use such that 7.5 percent of the agency’s total electricity consumption is generated by renewable energy sources for FY 2013 and beyond. For FY 2012, the required target was 5 percent of an agency’s total electricity consumption.

### Table 8: Goal 8 Strategies – Renewable Energy

INSTRUCTIONS: In Table 8 below, list ONLY the top five priority strategies that the agency will pursue in FY 2014 to achieve Goal 8. For each agency-level strategy listed below, select the appropriate response from the drop-down menu. If the selection is not applicable (“NA”) or “No”, an explanation must be provided in the Strategy Narrative column (C) as to why the agency will not implement this strategy. If the selection is “Yes”, provide in column (C) a description on how the strategy will be implemented and in column (D) provide specific targets/metrics and milestones to measure agency progress/success. DO NOT DELETE ANY STRATEGIES LISTED IN COLUMN (A). Agencies may make minor changes to a column (A) strategy if needed to enable the agency to select that strategy as a FY 2014 priority. If necessary, agencies may add additional strategies into the blank rows provided in column (A) in order to present five priority strategies.

(A) Will the agency implement the following strategies to achieve this goal?	(B) Top Five? Yes/ No/ NA	(C) Strategy Narrative  (100 word limit)	(D) Specific targets/metrics to measure strategy success including milestones to be achieved in next 12 months
Purchase renewable energy directly or through Renewable Energy Credits.	No	NSF does not have the ability to purchase renewable energy directly since the only regional provider does not offer it. The Division of Administrative Services Procurement is examining options that will allow us to meet these requirements.	
Install onsite renewable energy on federal sites.	No	The mission of NSF HQ has little need for energy generated from renewable sources. This, combined with the relatively low	

		energy consumption of NSF HQ, does not provide sufficient justification for such an expenditure, or sufficient opportunity for third party arrangements.	
Lease land for renewable energy infrastructure.	N/A	The mission of NSF HQ has little need for energy generated from renewable sources. This, combined with the relatively low energy consumption of NSF HQ, does not provide sufficient justification for such an expenditure, or sufficient opportunity for third party arrangements.	
Develop biomass capacity for energy generation.	N/A	The mission of NSF HQ has little need for energy generated from renewable sources. This, combined with the relatively low energy consumption of NSF HQ, does not provide sufficient justification for such an expenditure, or sufficient opportunity for third party arrangements.	
Utilize performance contracting methodologies for implementing energy conservation measures and increasing renewable energy.	N/A	NSF is not in a position to utilize performance contracting to install renewable energy infrastructure, since it only occupies two GSA-leased buildings and is planning a move in the near future to a new facility.	
Work with other agencies to create volume discount incentives for increased renewable energy purchases.	Yes	NSF participates in the Federal Interagency Sustainability Workgroup and Sustainable Acquisition and Materials Management Workgroup, and will work with these groups on options for volume discounts, if one or both takes up the topic. However, it ultimately falls to GSA and the Department of Energy to provide leadership roles.	If the Interagency Sustainability Workgroup and Sustainable Acquisition and/or Materials Management Workgroup decide to try to create volume discount incentives for increased renewable energy purchases, NSF will work with the other agencies in the group(s) to achieve this.

## Goal 9: Climate Change Resilience

### Agency Climate Change Resilience

EO 13514 requires each agency to evaluate agency climate change risks and vulnerabilities to identify and manage the effects of climate change on the agency’s operations and mission in both the short and long term.

**Table 9: Goal 9 Strategies – Climate Change Resilience**

**INSTRUCTIONS:** In Table 9 below, list ONLY the top five priority strategies that the agency will pursue in FY 2014 to achieve Goal 9. For each agency-level strategy listed below, select the appropriate response from the drop-down menu. If the selection is not applicable (“NA”) or “No”, an explanation must be provided in the Strategy Narrative column (C) as to why the agency will not implement this strategy. If the selection is “Yes”, provide in column (C) a description on how the strategy will be implemented and in column (D) provide specific targets/metrics and milestones to measure agency progress/success. **DO NOT DELETE ANY STRATEGIES LISTED IN COLUMN (A).** Agencies may make minor changes to a column (A) strategy if needed to enable the agency to select that strategy as a FY 2014 priority. If necessary, agencies may add additional strategies into the blank rows provided in column (A) in order to present five priority strategies.

(A) <b>Will the agency implement the following strategies to achieve this goal?</b>	(B) <b>Top Five? Yes/ No/ NA</b>	(C) <b>Strategy Narrative</b> (100 word limit)	(D) <b>Specific targets/metrics to measure strategy success including milestones to be achieved in next 12 months</b>
Ensure climate change adaptation is integrated into both agency-wide and regional planning efforts, in coordination with other Federal agencies as well as state and local partners, Tribal governments, and private stakeholders.	N/A	NSF HQ conducts no such planning efforts, as it occupies only two GSA-leased buildings and will not be expanding the extent of its space.	
Update agency emergency response procedures and protocols to account for projected climate change, including extreme weather events.	Yes	NSF HQ emergency management is based on hazard assessments that use the Northern Virginia Hazard Mitigation Plan Update. This Plan is updated every five years, with the last version finalized in December 2011. The latest version discusses climate change as a present threat and slow-onset disaster that amplifies existing hazards, and it concludes that “future updates to this plan might consider including climate change	When the next version is published, NSF will follow any climate change guidelines contained in the plan.

		as a parameter in the ranking or scoring of natural hazards.”	
Ensure workforce protocols and policies reflect projected human health and safety impacts of climate change.	No	For matters affecting employee health and safety, NSF HQ follows the regional recommendations for the Washington, D.C. area, for example with regard to code red air pollution days. Apart from weather extremes addressed by NSF’s emergency management protocols, the most likely impacts of climate change on employee health and safety will be an increased prevalence of unsafe outdoor air quality caused by more frequent extreme heat events. Therefore, NSF anticipates that it can continue to rely on these regional recommendations to address the impacts of climate change on employee health and safety.	
Update agency external programs and policies (including grants, loans, technical assistance, etc.) to incentivize planning for, and addressing the impacts of, climate change.	N/A	In the case of NSF, “agency external programs and policies” take the form of grants to universities and research institutions to conduct basic scientific research. Incentivizing these entities to improve their resilience to climate change is not an appropriate role for NSF.	
Ensure agency principals demonstrate commitment to adaptation efforts through internal communications and policies.	No	This strategy will likely be a priority in the future, but at this time the development of the NSF Climate Change Adaptation Plan is still in its infancy, as the Foundation lays the groundwork among senior management to develop the specific approaches to be used and the stakeholders to be involved.	
Identify vulnerable communities that are served by agency mission and are potentially impacted by climate change and identify measures to address those vulnerabilities where possible.	N/A	NSF’s mission is to serve the nation through basic scientific research, which is conducted by independent research institutions under NSF sponsorship.	
Ensure that agency climate adaptation and resilience policies and	Yes	NSF has secured contractor support, with option years through 2017, to assist with climate change adaptation. The	All vulnerability and risk assessments

programs reflect best available current climate change science, updated as necessary.		assistance includes expertise in evaluating scientific projections of climate change impacts to ensure that NSF climate change resiliency decisions are made using the best available science. NSF will also track the progress of the Federal government in its efforts to provide this information to agencies, and NSF will make use of these resources as they become available.	conducted by NSF will be based on recent scientific projections of climate change.
Design and construct new or modify/manage existing agency facilities and/or infrastructure to account for the potential impacts of projected climate change.	N/A	Occupying only GSA-lease space, NSF HQ will not be constructing new facilities or modifying existing ones.	
Incorporate climate preparedness and resilience into planning and implementation guidelines for agency-implemented projects.	N/A	In the case of NSF, “agency-implemented projects” means basic scientific research conducted by independent research institutions. It is not an appropriate role for NSF to provide these institutions with planning and implementation guidelines on improving resilience to climate change.	

## GOAL 10: Energy Performance Contracts

N/A for NSF because it is not subject to the Presidential Performance Contract Challenge.



## Appendix A. Acronyms

BPA	Blanket Purchasing Agreement
EISA	Energy Independence and Security Act of 2007
EO	Executive Order
EPEAT	Electronic Product Environmental Assessment Tool
ESPC	energy saving performance contract
FAR	Federal Acquisition Regulation
FEMP	Federal Energy Management Program
FY	fiscal year
GHG	greenhouse gas
GSA	General Services Administration
GSF	gross square foot/feet
HFC	hydrofluorocarbon
HQ	Headquarters
HVAC	heating, ventilation and cooling
N/A	not applicable
NSF	National Science Foundation
SSPP	Strategic Sustainable Performance Plan