

Centers for Disease Control and Prevention

2013 Annual Sustainability Report



Sustainability Goals and Governing Documents

Federal Mandates, Executive Orders, Sustainability Plans

HHS STRATEGIC SUSTAINABILITY PERFORMANCE PLAN (HHS SSPP)

In leading the initiative for a greener federal government, the Council for Environmental Quality (CEQ) has called upon agencies to submit annual plans for embracing sustainability and meeting federal sustainability mandates. HHS was one of 52 agencies to submit a Strategic Sustainability Performance Plan (SSPP) in response to the initial request in 2010, and the Department has provided yearly updates to the strategy each year, with input from all OPDIVs. The HHS SSPP outlines goals and milestones for integrating sustainability into Department operations and is revised each year to reflect current federal goals and priorities. With the 2013 iteration of the HHS SSPP came the addition of two new goals, Goal 8 (Renewable Energy) and Goal 9 (Climate Change Resilience), both intended to mirror the recent identification of these topics as major interests by the current White House Administration. Goal 10, previously labeled as Goal 8, has been identified as an informal goal for the Department.

For a complete copy of the current HHS SSPP, visit the [HHS Go Green Intranet page](#).

HHS and the Office of the Federal Environmental Executive (OFEE) have established the following goal areas:

Goal 1 Scope 1, 2 and 3 Greenhouse Gas Reduction Agency-Comprehensive Greenhouse Gas Inventory

Goal 2 High-Performance Sustainable Design, Green Buildings & Regional and Local Planning

Goal 3 Fleet Management

Goal 4 Water Use Efficiency and Management

Goal 5 Pollution Prevention and Waste Reduction

Goal 6 Sustainable Acquisition

Goal 7 Electronic Stewardship and Data Centers

Goal 8 Renewable Energy

Goal 9 Climate Change Resilience

Goal 10 Integration of Sustainability and Climate Change Resilience into HHS Mission

CDC SUSTAINABILITY IMPLEMENTATION PLAN (CDC SIP)

In support of the SSPP, each HHS OPDIV, including CDC, has created a Sustainability Implementation Plan (SIP) that outlines specific strategies that will be employed to achieve federal sustainability goals. CDC's SIP allows agency Goal Managers, the individuals responsible for the tracking and implementation of sustainability strategies, to keep an organized record of which projects in their goal area are underway. The plan also lists major accomplishments for the previous year, acknowledging the positive impacts on the Agency from a fiscal and an environmental standpoint.

MEETING FEDERAL REGULATIONS

Executive Order 13423 requires federal agencies to conduct environmental, transportation and energy-related activities in support of their respective missions in an environmentally, economically and fiscally sound manner. The Quality and Sustainability Office, formerly the Office of Sustainability, coordinates and monitors functions related to executive mandates.

Executive Order 13514 requires federal agencies to meet a number of energy, water and waste reduction targets, including:

- 30% reduction in vehicle fleet petroleum use by 2020
- 26% improvement in water efficiency by 2020
- 50% recycling and waste diversion by 2015
- 95% of all applicable contracts to meet sustainability requirements

Executive Order 13653 created an interagency Climate Preparedness and Resilience Council, on which HHS will serve, and also requires Federal agencies to create comprehensive Climate Change Resilience action plans, taking into account the potential effects of climate change on facilities, policies and agency missions.

Energy Independence & Security Act of 2007 and Energy Policy Act of 2005 require:

- Energy efficiency and metering requirements for buildings
- Energy savings performance contracts
- Energy efficient product procurement
- Reducing petroleum/increasing alternative fuel use

Quality and Sustainability Office

Quality and Sustainability in the OSSAM Organization

SUSTAINABILITY STRUCTURE AT CDC

During 2013, as part of a consolidation and restructuring process within CDC's Office of the Chief Operating Office (OCOO), the former Office of Sustainability (OS) was officially renamed the Quality and Sustainability Office (QSO) in the Office of Safety, Security and Asset Management (OSSAM).

QSO has continued to champion sustainability efforts at the Agency while also implementing a newly developed quality assurance program that incorporates the sustainable tenets of efficiency and responsible resource management into operations and offices across CDC.

Also in support of sustainability and health promotion efforts, CDC established two other offices with missions that align with sustainability tenants. The Worksite Wellness Office (WVO) has grown to support health promotion and wellness activities for CDC employees and continues the work of the Go Green Get Healthy Initiative. The Transportation Services Office (TSO) is responsible for managing CDC's transportation fleet and infrastructure and for connecting with local community transportation initiatives. The addition of these two offices brings additional focus and expertise to sustainability goal management.

2013 also saw the first formal appointment of ten Sustainability Goal Managers, selected by Directors in responsible offices that correspond to each HHS Strategic Sustainability Performance Plan (SSPP) goal. Throughout the year, Goal Managers worked to plan goal-related events, liaised with QSO staff and other Agency stakeholders and tracked progress towards achievement of overall and interim goals in their assigned scope of work. Goal Managers met quarterly throughout the year with their leadership and QSO staff to provide updates on progress, to identify opportunities for development and improvements in operations and to create strategic plans that incorporate both sustainability and climate change resilience into their work.

In December of 2013, QSO and CDC leadership identified Goal Managers to serve for the 2014 calendar year, with six of eight 2013 Goal Managers returning to their positions.



CDC's Quality and Sustainability Office (QSO) staff



CDC staff participate in the Chamblee Building 107 Recycling Pilot Kickoff.

SUSTAINABILITY INITIATIVES AT CDC

Automated Paperwork Management Systems

Bike Trains for Commuters

Biostabilizer Laboratory Pilot

Bring Your Own Bag (BYOB)

Bring Your Own Cup (BYOC)

Bring Your Own Device (BYOD)

[Campus Green Teams](#)

Campus Walking Clubs

Carpooling/Vanpooling Preferred Parking and Programs

CDC Freezer Challenge

[Freezer Challenge Toolkit \(for external and internal use\)](#)

Director's Stair Walks

Document Shredding Events (with Emory University)

Duplex Printing Initiative

Earth Week Campus Walks and Tabling

Employee Community Garden

FareShare Green Commuting Subsidies

Garden Markets

Green Communications Resources

Green Fleet Vehicles for Employee Use

Green Laboratory Initiatives

Healthiest CIO Challenge

Laboratory Recycling

Nightly Light and HVAC Setbacks and Occupancy Sensors

No Idling Policies on CDC Campuses

PC Power Management of Network Computers

Secure Bike Parking, Showers and Lockers

Single Computer Model

Single Stream (Deskside) Recycling

Solar Lighting Installations

Sustainable Lab Fairs

Teleconferencing/Virtual Conferencing Capabilities

Telework/Alternative Work Schedules

Virtual Tours of LEED-Certified Buildings

SUSTAINABILITY STAFF AND CHAMPIONS AT CDC

Since the creation of the Office of Sustainability (OS) in 2008, now titled the Quality and Sustainability Office (QSO), QSO staff and sustainability champions across the Agency have worked to ingrain green practices into the culture and daily operations of CDC. Volunteers, stakeholders and offices at CDC have always been integral to the success of sustainability at the Agency and have led many initiatives in various sectors that have helped to align agency work with sustainability goals. As the sustainability initiative has grown, so has the buy-in and support from leadership and agency offices that have begun to implement programs and resource conservation measures within their own scopes of responsibility.

Over the past five years, there has been a steady progression of responsibility for sustainability project development. The role of initiative creation and implementation has gradually shifted from grassroots volunteers to offices and CDC leadership, exemplifying the growing importance and prioritization of sustainability within the organization.

GAUGING PROGRESS WITH SUSTAINABILITY SCORECARDS

Each year, HHS is provided with a Sustainability Scorecard by the White House Office of Management and Budget (OMB) that offers a cumulative, at-a-glance indicator of the Department's status in relation to each SSPP goal. In turn, HHS provides each OPDIV with an individual scorecard to show their achievements in comparison to other agencies. An organization is scored Green, Yellow or Red, depending on how successful they have been at meeting each goal through the course of the year. CDC's most recent scores are shown below. To view a copy of the HHS Scorecard, you can visit <http://sustainability.performance.gov/>

CDC Sustainability Scorecard FY2012

	Scope 1&2 GHG Emission Reduction Target Met Scope 1&2 GHG Reduction Target of 10.3% by 2020, with a 28.8% reduction in FY 2012.	
	Scope 3 GHG Emission Reduction Target Met Scope 3 GHG Reduction Target of 3.3% by 2020, with a 5.3% reduction in FY 2012.	
	Reduction in Energy Intensity On track to meet 30% energy intensity reduction in goal-subject facilities by 2015 compared with FY 2003. FY 2012 target was 21%, actual reduction was 23.2% in FY 2012.	
	Use of Renewable Energy Met target goal of 5% use of renewable energy as a percent of facility electricity use. Actual use was 12.3% from renewable electricity sources including at least 2.5% from new sources.	
	Reduction in Potable Water Intensity Missed FY target goal of 10% reduction in potable water intensity compared with FY 2007. FY 2012 actual was a 34.9% increase from FY 2007 baseline and not on track to meet 26% by 2020.	
	Reduction in Fleet Petroleum Use Reduction in fleet petroleum use compared to 2005: 33.4% and on track for 20% by 2015.	
	Green Buildings Sustainable green buildings: 6.8% of buildings sustainable 24.9% GSF of inventory sustainable, as reported in FRPP	
	Electronic Stewardship (Data as of December 30, 2012) 100% of eligible electronic printing products with duplexing features in use 100% of agency, eligible PC, Laptops, and Monitors with power management actively implemented and in use	
	Sustainable Acquisition 100% New Contract Actions Meeting Sustainable Acquisition Requirements	

CDC has calibrated all utility water meters and installed building level meters at all eligible buildings on its Roybal Campus. Data is being collected and analyzed to identify the areas of greatest potential for water savings projects in 2014.

CDC has identified the ten buildings in its nationwide owned portfolio with the greatest opportunity for meeting the Guiding Principles. Analysis and project planning is ongoing for these facilities.

GOAL 1: Greenhouse Gas (GHG) Reduction

Energy Intensity; Scope 1, 2 & 3 Emissions; VMTs

GOAL 1: Greenhouse Gas Reduction & Maintenance of Agency Greenhouse Gas Inventory

- Reduce energy intensity by 3% per year, in goal-subject facilities compared with FY 2003
- Reduce total energy intensity by 32.5% by FY 2020
- Scope 1&2 GHG Emission Reduction Target 10.3% by FY 2020
- Reduce GHG emissions for federal employee travel by 1% by FY 2020 from FY 2010 baseline
- Reduce GHG emissions for Scope 3 emissions by 3.3% by FY 2020 from FY 2010 baseline
- Reduce the number of vehicle miles traveled (VMT) for commuting purposes

CDC Sustainability Scorecard Score: **Green**

2013 ACHIEVEMENTS AND INITIATIVES

Through upgrades of old equipment, replacement of key controls and implementation of new technologies, CDC decreased its energy intensity in facilities by 27.1% from a baseline year of FY2003, surpassing its 2013 goal of a 24% reduction. Cool roofs were repainted at multiple campuses to ensure less of a burden on each building's HVAC system. In addition, a total of 53 drink vending machines were removed across Atlanta campuses, resulting in an estimated annual savings of 633MMBTU. Energy use has been identified as a priority for CDC in the coming year, as SSPP goal requirements become more stringent.

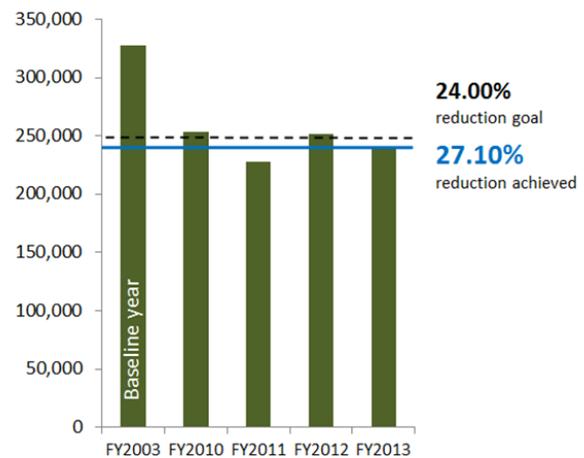
These improvements and reductions in energy consumption have helped to reduce CO2 emissions from all sources, with a 23.5% reduction in Scope 1 and 2 emissions and an astounding 87.9% reduction for Scope 3 across the Agency, attributed to a 30% reduction in vehicle rentals and air travel.

Employee commuting, which contributes to Scope 3 emissions, has been a major focus for CDC's Green Transportation Manager, who has maintained the Agency's Platinum Level partnership with the Clean Air Campaign. In 2013, CDC and Clean Air Campaign personnel came together to conduct transportation fairs and commuter counts to track participation and promote awareness of green commuting opportunities, which will further reduce emissions. The Transportation Services Office (TSO) and Worklife Wellness Office (WVO) also hosted a webinar titled "Active Commuting: Where Health and Wellness Fit into Commuter Travel" in partnership with the Clean Air Campaign, designed to illustrate the link between public health and positive environmental choices. To accommodate and encourage clean commuting, CDC added 20 new lockers to its Long-Term Bike Locker Program, expanding the initiative to its Chamblee campus.

CDC has also made great strides towards reducing Scope 3 emissions by expanding and improving its Telework and Hoteling programs and employee eligibility coding procedures. The percentage of CDC employees eligible for telework increased by 14.6% (from 62%) during the past FY as a result of improvements to the coding system used to determine employee eligibility for telework and the notification process for initiating a new telework agreement. Additionally, the percentage of teleworkers overall increased by 2% in 2013, bringing CDC's total up to 50% of eligible employees actively teleworking.

Energy Management Requirement

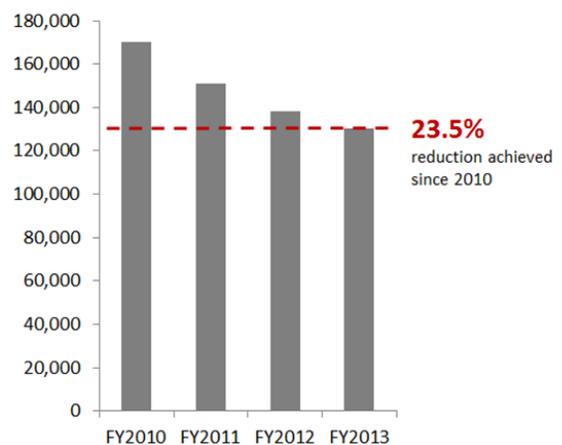
Reduction in energy intensity in facilities subject to NECPA/E.O. 13423 goals, reported in Btu/GSF



CDC has reduced overall energy intensity by 27.1% as compared to the baseline year, FY 2003. This exceeds the mandated 24% by 3.1%.

Greenhouse Gas Emissions Reduction

Reduction in total (Scope 1, 2 & 3) greenhouse gas emissions, reported in metric tons of CO₂e



CDC has reduced its GHG emissions for Scope 1, 2, and 3 emissions by 23.5% as compared to FY2010. Note that at the time of publication, fleet emissions numbers were not available.

GOAL 2: Sustainable Buildings

Guiding Principle Compliance, Building Operation and Maintenance

GOAL 2: Buildings, ESPC Initiative Schedule, and Regional & Local Planning

- Assess and demonstrate that at least 15% of agency's existing government-owned buildings, agency direct-leased buildings, delegated authority leased buildings and buildings meet Guiding Principles by FY 2015
- Show continuous improvement towards 100% compliance with Guiding Principles
- Incorporate sustainable practices into agency policy and planning for new Federal facilities
- Operate and maintain, and conduct minor repairs and alterations for existing building systems to reduce energy, water and materials consumption
- 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)

CDC Sustainability Scorecard Score: Yellow

2013 ACHIEVEMENTS AND INITIATIVES

CDC continues to construct facilities that are designed with sustainability and effective resource consumption in mind. By employing the use of leading technologies and materials, such as efficient fixtures, cool-roof coatings and automatic setbacks, the Agency is reducing energy and water consumption and also providing health-conscious work environments for occupants.

CDC's newest facility, Chamblee Campus Building 107 (pictured right) was completed in spring of 2013, with a ribbon cutting ceremony held on April 22. The eight-floor building now serves as headquarters for the National Center for Chronic Disease Prevention and Health Promotion (NCCDPHP) and houses approximately 1000 health professionals who moved in during the summer months. The new research support facility meets a goal of 30% reduction in energy use and 40% reduction in water use for comparable buildings. The facility's irrigation system receives all its water from a 92,968 gallon below-grade cistern fed by captured rain water and HVAC system condensate, thereby eliminating the typical irrigation requirements for a domestic water source. It utilizes low-flow and motion sensor-activated plumbing fixtures, further reducing water usage and helping CDC achieve reductions in resource use. Nearly all construction waste was sent to a recycling center for processing.

Building 107 also includes a fitness facility for the whole campus, and features large, day-lit stairwells to encourage physical activity of building occupants.

During the winter of 2013, CDC's Sustainable Buildings Manager began hosting meetings with Asset Management Services Office (AMSO) and QSO leadership and staff to identify the CDC-owned



CDC's Building 107 on the Chamblee Campus, completed in spring of 2013, is a research support facility with office space for 1,046 public health professionals.

facilities that have the greatest potential for upgrades that will result in compliance with Guiding Principles. Fifteen percent of CDC's owned portfolio must comply with the Guiding Principles by 2015 and continuous improvement is required for out-years. Various installations, renovations or upgrade projects to meet these principles will be selected and carried out beginning in 2014.

QSO staff also reviewed CDC's Roybal Master Plan 2025, scheduled to be published in 2014, in its entirety, providing input and identifying opportunities for incorporation of sustainable installations into planned projects. The Buildings and Facilities Office's intent is to include Health Impact Assessments (HIAs) as a part of the existing NEPA/Environmental Assessment process for all Master Plans and similar large projects in consultation with CDC's National Center for Environmental Health, Healthy Community Design Program. After completion of the Roybal Master Plan will come the creation of Lawrenceville and Chamblee Master Plans, which will also include NEPA assessments and EIS studies. CDC hopes to highlight Sustainable Buildings in future master planning efforts and include the planned facility upgrade projects that will allow our existing portfolio to continuously improve and meet the Guiding Principles.

Current CDC-Owned Facilities Meeting Guiding Principles

Roybal, Building 21
Roybal, Building 24
Chamblee, Building 106
Chamblee, Building 110

GOAL 3: Fleet Management

Low-Emissions/Alt. Fuel Vehicles, Petroleum Consumption

GOAL 3: Fleet Management

- Reduce the use of fossil fuels by using low greenhouse gas emitting vehicles including alternative fuel vehicles
- Reduce the use of fossil fuels by optimizing the number of vehicles in the agency fleet
- Reduce the use of fossil fuels by reducing, if the agency operates a fleet of at least 20 motor vehicles, the agency fleet's total consumption of petroleum products by a minimum of 2 percent annually through the end of FY 2020, relative to a baseline of FY 2005

CDC Sustainability Scorecard Score: Green

2013 ACHIEVEMENTS AND INITIATIVES

Since 2006, CDC has consistently maintained a reduction of petroleum consumption greater than 2% per year from its 2005 baseline. CDC has achieved this reduction by decreasing the number of total vehicles in the motor pool, properly distributing newly acquired alternative fuel vehicles and encouraging ridesharing for employees who utilize fleet resources. CDC has been working to replace high usage motor pool vehicles with hybrids and alternative fuel vehicles in order to achieve the reduction in fleet petroleum use outlined in E.O. 13423.

Gasoline consumption dropped drastically from FY2012 to FY2013, with CDC consuming only 26,285 gallons during the current year as compared to 42,079 gallons in FY2012.

In 2013, 22 alternately fueled vehicles (AFVs) were added to the CDC fleet. This total includes 5 hybrids, bringing the Agency total number of hybrids to 34 out of 224 total vehicles. Seventeen flex-fuel vehicles were also acquired.

Two electric cars are set to arrive in early 2014 as part of a General Services Administration (GSA) pilot, which will bring the Agency's total of alternatively fueled vehicles to 143.

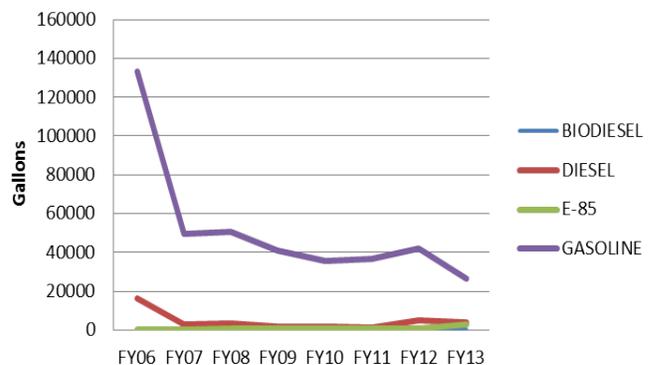
Two electric vehicle charging stations were installed and brought on line at CDC's Chamblee campus this year, intended for use by these two electric vehicles. Two additional stations have been funded and will be installed soon on the Roybal campus.

CDC's most efficient vehicles have been designated to serve offices that more heavily utilize fleet automobiles. This helps ensure that the Agency is reducing its emissions and that sustainable resources are being distributed to have the largest environmental impact.

In order to encourage ridesharing and to promote the use of available low-emissions and high-fuel economy vehicles within the fleet, CDC has implemented a Vehicle Reservation Request system, designed to manage, coordinate and pair up employees from different offices who are traveling to the same locations.

Fuel Consumption

Total fuel consumption of CDC fleet vehicles, reported in gallons or gasoline equivalent gallons



CDC E-85 fuel use has slightly increased, while gasoline and diesel consumption have decreased sharply since FY05. Electric energy use is expected to reduce fuel use further in 2014.

Fleet Vehicle Types

Number and Fuel-Type of CDC Fleet Vehicles

	2005	2006	2007	2008	2009	2010	2011	2012	2013
Number of Vehicles in CDC's Fleet	223	239	240	241	230	236	230	226	224
Number of Alternately Fueled Vehicles in CDC's Fleet	65	87	93	100	117	118	107	121	143

Water Intensity, Potable Water Consumption, Leak Detection

GOAL 4: Water Use Efficiency and Management

- Reduce total water use intensity by 2% per year or 26% by FY 2020 from 2005 baseline
- Reduce potable water consumption intensity by 20% by FY 2015 from approved 2007 baseline
- Continually develop and improve leak detection strategies

CDC Sustainability Scorecard Score: Red

2013 ACHIEVEMENTS AND INITIATIVES

While CDC is not currently meeting its water intensity goal, concentrated efforts in this sector in 2013 have led to a decrease in overall usage. In response to a large increase in CDC's water usage during FY2012 on the Roybal campus, CDC's Water Manager and staff from responsible OSSAM offices (including AMSO and QSO) hosted a series of meetings designed to isolate the cause of the spike in water consumption. Before it could begin to mitigate the effects of the root problem, the team identified a need for more granular usage data and monthly analysis to determine which facilities stood out as the heaviest users.

During 2013, individual water meters were installed at every eligible building on CDC's Roybal campus, allowing the Water Manager to better measure the usage patterns of each facility. DeKalb County meters on CDC's campus were also calibrated to ensure that the Agency was being charged the correct amount each month.

After discovering that one building was consuming a disproportionate amount of resources, stakeholders from programs in that facility were brought in to begin crafting a mitigation strategy, taking into account the needs of the users from safety, scientific and sustainability standpoints.

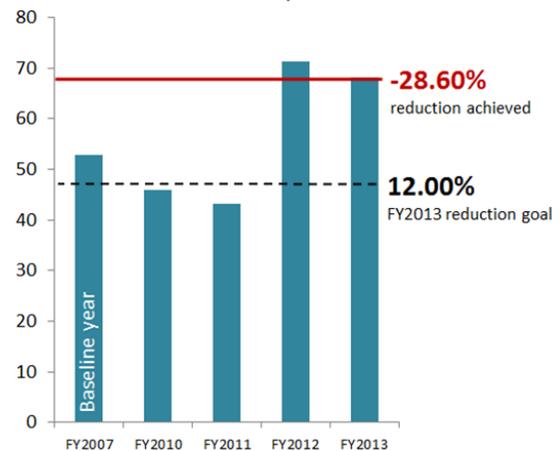
As a result of Water Manager and responsible office efforts, the trend in water usage began a downturn in the fall of 2013. The decrease in water usage at CDC during FY2013 brought the agency 6.3% closer to its goal as compared to FY2012.



An example of a water catchment system on CDC's Roybal Campus. Rainwater runs down the chains into a cistern below, which is used for landscaping purposes. Similar installations, intended to direct and collect rainwater or condensate, have been placed in other CDC buildings.

Water Intensity Reduction

Reduction in potable water consumption intensity, reported in Gallon/GSF



CDC reduced water use intensity by 6.4% compared to FY2012 but did not meet the long term goal of 12% reduction from the 2007 baseline.

Consumption is expected to further decline after a series of awareness campaigns, targeting both general audiences and specific end users, is put into effect in early 2014. It is expected that usage patterns at other CDC campuses nationwide will continue to show a downward trend, as they have in past years.

CDC employs "water-wise" landscaping practices on its campuses, meaning it collects runoff and/or condensate for watering and has designed its campuses to route and absorb water in an efficient manner. CDC has also pledged to use no potable water for landscaping purposes and is able to reduce its consumption intensity by utilizing rainwater or other water sources, rather than utility provided potable water, for landscaping and irrigation.

Building 107 at CDC Chamblee, which was completed in April of 2013, is outfitted with one such water catchment system, similar to the one pictured on the left, which directs rainwater through various channels into cisterns. This water is later used for landscaping and irrigation purposes.

GOAL 5: Waste Reduction & Diversion

Recycling, Source Reduction, Non-Hazardous Waste Diversion, C&D Waste Diversion

GOAL 5: Pollution Prevention and Waste Reduction

- Increase source reduction of pollutants and waste
- Divert at least 50% non-hazardous solid waste by FY 2015
- Divert at least 50% C&D materials and debris by FY 2015
- Reduce printing paper use, and only purchase uncoated printing/writing paper containing at least 30% PCF
- Minimize acquisition, use and disposal of toxic and hazardous chemicals

CDC Sustainability Scorecard Score: **Green**

2013 ACHIEVEMENTS AND INITIATIVES

In FY2013, CDC achieved a 41.5% diversion rate for non-hazardous solid waste, exceeding its interim target of 30% for the year. These rates mark a 2.9% increase in diversion from FY2012, and can be largely attributed to new programs and initiatives that CDC has developed over the course of the last several years. CDC is required to reach a diversion rate of 50% by 2015 for both non-hazardous and construction and demolition waste.

CDC diverted 96.6% of construction and demolition (C&D) material and debris during FY2013, surpassing the interim goal of 30% diversion. Construction of Building 107 on CDC's Chamblee campus, a major capital project completed in early spring, contributed substantially to the high diversion rates. As of February 2013, the construction of Building 107 on the Chamblee campus had diverted 93% of its construction waste from landfill, exceeding both CDC's goal of 60% and the project goal of 75%.

The agency's Pollution Prevention and Waste Diversion Manager headed up a deskside recycling pilot for new Building 107 occupants which established new recycling collection contract provisions and promoted program awareness among end users. As a part of the pilot, all occupants were provided with a deskside bin designated for recycling, complete with a sticker detailing which materials could and could not be recycled.

During 2013, CDC also modified major waste collection contracts in order to capture the financial returns related to recycling of certain materials. CDC has composting contracts in place at 11 leased facilities, and has established recycling programs at 100% of all locations (both owned and leased). CDC also maintains programs to recycle specialized materials including Styrofoam, lab plastics and ice packs.

In addition to green disposal practices, CDC employs the concept of dematerialization, attempting to limit its purchase to only necessary products. Sustainability and Safety leadership met with laboratory staff to introduce the concept of eliminating the most hazardous chemicals from our purchasing chain in the coming year. This manner of procurement keeps unneeded products from reaching the landfill and eliminates packaging materials, purchasing costs, transportation-related emissions and resulting health effects.

Construction & Demolition Waste

CDC construction and demolition (C&D) waste disposal by stream



CDC diverted 96.6% of Construction and Demolition waste during FY2013, exceeding its goal of 30% diversion.

Non-Hazardous Waste Disposal

CDC non-hazardous waste disposal by stream



CDC diverted 41.5% of Non-hazardous waste during FY2013 and exceeded its goal of 30% diversion.

GOAL 6: Sustainable Acquisition

Green Purchasing, Bio-Based and Energy Efficient Products

GOAL 6: Sustainable Acquisition

- Ensure 95% of applicable new contract actions and modifications require products and services that are energy and water efficient, bio-based, environmentally preferable (EPEAT certified), non-ozone depleting, contain recycled content and non-toxic or less toxic alternatives.
- Coordinate training and outreach related to these requirements to all purchasers, purchase reviewers and contract officers

CDC Sustainability Scorecard Score: Green

2013 ACHIEVEMENTS AND INITIATIVES

CDC has achieved 100% compliance with new contract actions meeting sustainable acquisition requirements for the past three years, compared to its target of 95%. The Agency has drafted and approved multiple clauses to be included in all applicable contracts to ensure the purchase of environmentally preferable products and services. CDC reviews over 1200 procurement actions for each quarterly Green Purchasing report to show the application and result of these clauses.

CDC continues to notify purchasers, purchase approvers, and contracting officers of additional training opportunities provided by GSA, and the Sustainable Acquisition Manager has taken additional green trainings that will be presented to Procurement and Grants Office (PGO) leadership as a better training option for contracting personnel.

In an effort to share and adopt best practices across the government, initial conversations with the National Institute of Health (NIH), the General Services Administration (GSA) and other Federal agencies have been conducted to discuss working partnerships and sharing of excess resources and inventories as a part of a Green Purchasing Tool.

“CDC has been a leader in sustainable procurement since 2008 and ensures all contract actions involving sustainable products or services include the appropriate FAR clauses for environmental and energy considerations. We are working to strengthen our commitment to upholding our green procurement policy, and hope that in the future we can employ technology and auditing processes that will embed sustainable purchasing seamlessly and almost effortlessly into our purchasing procedures.”

- Bill Nichols, Director of Procurement and Grants Office (PGO), CDC



As an example of one of the initiatives that CDC's Procurement and Grants Office is taking, one recent contract calls for the inventory, capture and recycling of electrical copper wire, such as shown above. Any profit incurred above the cost of recycling will be returned to the government for use in future projects.

In addition to the acquisition of environmentally preferable products and services, CDC works to reuse materials in good condition rather than discarding the products, including furniture and electronics. This reduces the need to purchase new equipment and materials and also helps to guarantee that CDC's purchased goods were being utilized responsibly through the end of their usable lives.

CDC's Sustainable Acquisition Manager met during 2013 with individuals from the Management Information Systems Office (MISO) to discuss the possibility of reworking the current automated contracts application process used at the Agency. If finalized, the changes would require any contracting officer to answer specific questions related to the consideration and usage of sustainable materials alternatives in their contracts. This modification would create greater awareness of available green substitutes for commonly purchased materials (chemicals, building materials, etc.) and would also ensure contracting officers were taking a more active role in the purchase of sustainable products.

GOAL 7: Electronics Management

Data Center Consolidation, Power Management Strategies

GOAL 7: Electronic Stewardship and Data Centers

- Establish and implement policy/guidance to ensure use of power management, duplex printing, and other energy efficient or environmentally preferred features on all eligible agency electronic products.
- Employ environmentally sound practices for disposition of all agency excess or surplus electronic products.
- Ensure implementation of best management practices for energy efficient management of servers and Federal data centers

CDC Sustainability Scorecard Score: **Green**

2013 ACHIEVEMENTS AND INITIATIVES

Thanks to the work of CDC's Information Technology Services Office (ITSO), the Agency has received the 2013 Federal Electronics Challenge (FEC) Platinum Award in recognition of its sustained leadership and achievements in electronics management and stewardship. This marks CDC's fourth award from the FEC.

As of FY2013, 100% of CDC's electronic product acquisitions are Energy Star qualified or covered by Energy Star specs, are EPEAT-registered, and are FEMP designated. All eligible agency PCs, laptops and monitors have Verdiem power management software actively implemented and in use, meaning that all client workstations are powered down nightly and computers are set to idle automatically to reduce power usage. ITSO personnel have also begun discussing the possibility of allowing CDC staff to set their own "power on" time in the morning, to accrue more energy savings.

CDC has also initiated a Single Computer Model which requires individual users to operate with only one primary computing device, reducing the overall number of computing devices in the Agency. To further reduce the number of assigned devices, CDC ITSO has implemented a Bring Your Own Device (BYOD) plan to allow CDC staff to utilize their own personal smart phones to access CDC mail and Outlook functions, thereby reducing the overall number of Blackberries in service.

In 2013, ITSO implemented a script that set the default margin for Microsoft Word to 0.75" for all network-connected PCs. This change will further reduce paper consumption, resulting in cost

CDC received the Federal Electronics Challenge (FEC) Award for the fourth consecutive year. CDC again received recognition at the Platinum Level.



savings for the Agency. Annual spot checks will be conducted in the future to verify settings are still functioning.

ITSO has established meeting management technologies, including Live Meeting/Tele- & Video-conferencing, that allow 4-way video-conferencing to assist CDC programs in hosting and participating in events. These technologies allow a large number of staff to utilize CDC's telework system. They also reduce business travel and corresponding emissions. Continuous updates to the software applications are being made to improve remote network access and conferencing capabilities.

As a part of best-practice sharing, CDC has begun to offer its services as a mentor for other HHS OPDIVs who are interested in learning more about successful and responsible electronics management.

In FY2013, 65% of agency data centers were independently metered to determine monthly (or more frequently) Power Utilization Effectiveness (PUE), exceeding the target of 50%. Data center chilled water BTU meters have been installed at Building 21 at Roybal to more effectively monitor data center energy use. CDC continues to virtualize and consolidate its data centers to reduce energy use and contribute to space consolidation at its facilities. One data center, at CDC's Research Triangle Park, was closed in 2013.



CDC continues to virtualize and consolidate its data centers in an effort to reduce energy use. The Agency has also begun to meter multiple data centers to determine their Power Utilization Effectiveness (PUE). Metered data centers have exceeded the PUE target of 50%.

GOAL 8: Renewable Energy Use

Green Power Purchasing and Renewable Energy Installations

GOAL 8: Renewable Energy Use

- Use of renewable energy as a percent of facility energy use: Total of 5.0 from renewable energy sources, including at least half from new renewable sources. This percentage will increase to 7.5% of total usage in FY2013.

CDC Sustainability Scorecard Score: Green

2013 ACHIEVEMENTS AND INITIATIVES

Renewable energy requirements for HHS OPDIVs were previously listed as a sub-bullet under Goal 1 in the HHS SSPP and were broken out as a separate goal for the first time in the 2013 version of the document as a response to the identification of renewables as a focus for the Obama Administration. For the third consecutive year, CDC has exceeded these renewable energy goals, procuring 12.6% of its total energy use from renewable sources and surpassing the requirement of 7.5%.

In order to meet these requirements, the Agency has entered into green purchasing contracts with local utilities providers at several campuses across the country. At the Fort Collins, CO, and Spokane, WA, campuses, 100% of energy consumed is wind power generated. Both locations will continue to procure solely green power for the foreseeable future as a part of their arrangements. CDC also purchases green power from Georgia Power for several of its Atlanta-area campuses as part of a three-year agreement, which it plans to renew at the contract's end.

While CDC does not maintain a sizeable renewable installation on any of its campuses, the Agency has incorporated the potential for major renewables projects into master plans and into newly constructed facilities. For instance, the roof of Building 107 on CDC's Chamblee campus, completed in spring of 2013, has been outfitted with the proper pre-installation equipment for solar panels should a photovoltaic (PV) project be approved in the future.



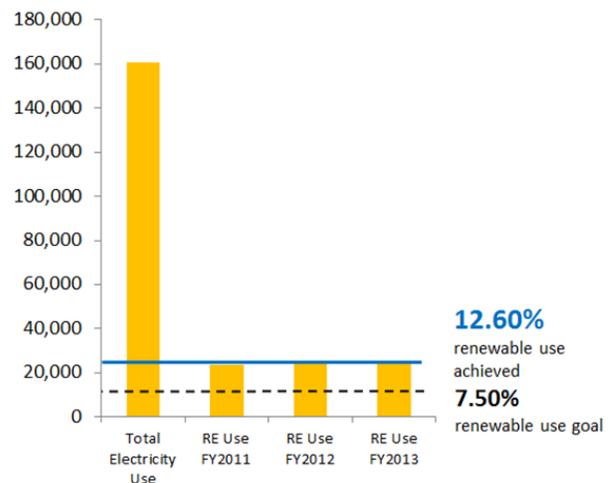
CDC's South Surface Lot at the Roybal Campus is lit by a series of photovoltaic (PV) solar panels.



The installation contains 11 solar panels.

Renewable Energy Requirement

Eligible renewable electricity use as a percentage of total electricity use for FY2013, reported in MWh



CDC has achieved a renewable energy use percentage of 12.6%, compared to its total energy use for FY2013, exceeding the federal mandate by 5.1%.

PV Solar evaluations have been conducted for Buildings 101 and 102 at CDC's Chamblee campus. CDC currently has installed solar panels at its South Surface Lot on the Roybal campus.

A review of utilities data related to a geothermal pilot at NIOSH MRET has also been conducted to assess the viability of the project as a prototype for future work.

On December 5 of 2013, President Obama released a Presidential Memorandum titled "[Federal Leadership on Energy Management](#)," outlining upcoming renewables requirements for all Federal agencies. CDC personnel from multiple offices reviewed and provided input to the Presidential Memo. The document provides updated metrics for renewable energy goals and also details the acceptable channels through which agencies may procure or produce green power. According to the Memo, 20% of the total amount of electric energy consumed by each agency during any fiscal year shall be renewable energy by FY2020. CDC will continue to review and improve its renewable procurement processes to ensure future compliance with this directive.

GOAL 9: Climate Change Resilience

Climate Change Preparedness, Mitigation and Adaptation

GOAL 9: Climate Change Resilience

- Set the standard for federal agencies in sustainable development.
- Provide climate-resilient health and human services.
- Support scientific research focused on environmental and public health, including research on the effects of climate change on human health and well-being.

2013 ACHIEVEMENTS AND INITIATIVES

Climate Change Resilience was identified during 2013 as a major priority for the current Administration, which released multiple plans and mandates related to adaptation and mitigation throughout the year. [Executive Order 13653](#), released November 6, 2013, created an interagency Climate Preparedness and Resilience Council which requires Federal agencies to create comprehensive Climate Change Resilience action plans. The White House soon afterwards released a template and instructional guide for drafting resilience plans.

With this growing focus on Climate Change in the Federal government and with the release of the HHS Climate Change Plan in 2012, CDC has begun paving the way for the inclusion of climate change resilience in strategic plans, grants and projects. CDC has been reaching out to experts in its National Center for Environmental Health (NCEH) to discuss the potential effects of climate change on various regions of the country and to view examples of the program's work in communities across the country. QSO staff have also attended workshops on NASA and GSA climate adaptation pilots to gather information on successful programs and to better understand ways in which to mitigate the risks of climate change effects in the many regions of the country where its facilities lie.

In an outreach and education capacity, QSO personnel coordinated with NCEH staff to present at the 2013 Brownfields Conference in Atlanta during May of 2013. Both the QSO and NCEH presented information to attendees regarding Sustainability and Climate Change research within CDC and its programs.

At CDC's Quarterly HHS SSPP Goal Manager Meeting in June, Climate Change experts from NCEH spoke with all agency Goal Managers and leadership regarding the science behind Climate Change and the application of related research to public health and CDC's work.

CDC's December 2013 Sustainability Review, forwarded out to more than 800 individuals including CDC leadership and management, focused on Climate Change Resilience and presented information on the President's Climate Change action plan. To further educate personnel, the communications also provided resources related to incorporating climate change resilience into strategic planning for the upcoming year. This resource was also shared with the alumni and staff of Harvard University's National Preparedness Leadership Initiative in an

CLIMATE CHANGE AND PRESIDENT OBAMA'S ACTION PLAN

PRESIDENT OBAMA HAS ANNOUNCED A SERIES OF EXECUTIVE ACTIONS TO REDUCE CARBON POLLUTION, PREPARE THE U.S. FOR THE IMPACTS OF CLIMATE CHANGE, AND LEAD INTERNATIONAL EFFORTS TO ADDRESS GLOBAL CLIMATE CHANGE.

DUE TO CLIMATE CHANGE, THE WEATHER IS GETTING MORE EXTREME

2012 WAS THE SECOND MOST EXTREME YEAR ON RECORD FOR THE NATION

RECORD HEAT ACROSS THE U.S.

STATE-BY-STATE TEMPERATURES IN 2012



ALSO IN 2012:

WARMEST YEAR ON RECORD FOR THE U.S.
(Doesn't include Alaska, Hawaii, or U.S. territories.)

356

RECORD HIGH TEMPERATURES TIED OR BROKEN
IN 176 OF THE 50 STATES.



APPROXIMATELY ONE-THIRD OF THE U.S. POPULATION EXPERIENCED 100+ TEMPERATURES
FOR 120 OR MORE DAYS.

DROUGHTS, WILDFIRES, AND FLOODS ARE ALL MORE FREQUENT AND INTENSE

PRECIPITATION WAS 2.57 INCHES BELOW THE 20TH CENTURY AVERAGE.

15TH DRIEST YEAR ON RECORD

WILDFIRES BURNED MORE THAN 9.3 MILLION U.S. ACRES

EXTREME WEATHER COMES AT A COST

CLIMATE AND WEATHER DISASTERS IN 2012 COST THE AMERICAN ECONOMY MORE THAN \$100 BILLION



\$30 BILLION U.S. DROUGHT/HEATWAVE
ESTIMATED FOR THE U.S.



\$1 BILLION WESTERN WILDFIRES
ESTIMATED



\$65 BILLION SUPERSTORM SANDY
ESTIMATED



\$2.3 BILLION HURRICANE ISAAC
ESTIMATED



\$11.1 BILLION COMBINED SEVERE WEATHER
ESTIMATED FOR INCIDENTS ACROSS THE U.S.

THERE ARE ALSO PUBLIC HEALTH THREATS ASSOCIATED WITH EXTREME WEATHER
Children, the elderly, and the poor are most vulnerable to a range of climate-related health effects, including those related to heat stress, air pollution, extreme weather events, and diseases carried by food, water, and insects.

President Obama released an infographic version of his Climate Change Action Plan in 2013, an excerpt of which can be seen above. For the full-sized version, visit Whitehouse.gov.

effort to share the importance of resilience planning with preparedness and emergency response leaders across the nation. CDC will continue to communicate with its staff and partners to help audiences better understand the implications of climate change and its potential effects on their work.

GOAL 10: Integration into HHS Mission

Promotion of Efficient Labs, Best Practices and Innovation

GOAL 10: Agency Innovation & Government-Wide Support

- Promote alternative procedures and improved products and equipment in order to provide safe, environmentally restorative health science and practice
- Improve energy efficiency of lab freezers, autoclaves, and other lab equipment
- Create and adopt a comprehensive wellness policy for each HHS agency
- Increase public educational opportunities on the link between sustainability and health
- Promote, reward and track sustainability innovation and best practices

2013 ACHIEVEMENTS AND INITIATIVES

CDC continues to search for innovative ways in which to link its mission of public health with its goals of environmental stewardship and sustainability. Two of the Agency's recently created "Challenges," designed to promote personal health and sustainable laboratory operations that positively impact the environment, are perhaps some of the most novel ways to inspire employee participation in the linkage of these goals.

After first receiving a 2012 Green Champion Award from HHS in the Change Agents category, the CDC Freezer Challenge was selected to receive the GreenGov Presidential Award for Innovation in a December ceremony at the White House. Leaders of the Challenge traveled to Washington D.C. to accept the award (pictured right).

The Freezer Challenge, aimed at laboratory professionals who work on public health research nationwide, encouraged sustainable storage practices and energy use reduction within CDC's many laboratory facilities. The Challenge resulted in the temperature-tuning of 60 ultra-low temperature freezers, while 44 freezers were emptied and unplugged, their items consolidated and properly inventoried. This initiative resulted in savings of approximately \$127,000 per year in operations and avoided costs and reduced energy demands by at least 320,000 kWh annually.

Due to the success of the Freezer Challenge, CDC spent the past year sharing our best practices with others through presentations and resources. In September, CDC presented at the [International Institute for Sustainable Laboratories](#) and shared the message of energy savings through focused laboratory equipment management. Later in the year, CDC published a "Freezer Challenge Toolkit" for use by external and internal organizations. It provides scoring templates, research related to cold storage practices and instructions for replication of a Challenge by other organizations.

Plans for a second Freezer Challenge, possibly in partnership with Emory University in Atlanta, Georgia, are underway. The second Challenge would focus more heavily on sustainable lab practices in relation to alternative chemical purchasing while maintaining green cold-storage practices as a priority.



CDC Laboratory and Sustainability staff received the GreenGov Presidential Award in Green Innovation for their work on the Freezer Challenge.

CDC's Worklife Wellness Office (WVO) was formally established in 2013 as a part of the Office of the Chief Operation Officer (OCOO) consolidation. The establishment of this office helps to ensure the continuation of healthy employees as a priority.

On the heels of its immense success in its inaugural year, WVO staff hosted a second Healthiest CIO Challenge in the summer of 2013. Based on the PALA Challenge, the Healthiest CIO Challenge encourages participants to achieve and adhere to nutrition and physical activity goals that will help them improve their quality of life.



CDC OSSAM Leadership and staff pose as they prepare for the Healthiest CIO Challenge in 2013.

2013 Awards and a Look Ahead

Agency Awards, Honors, Sustainability in 2013

2013 AWARDS

CDC was recognized during 2013 with multiple awards and honorable mentions for its sustainability work, including:



CDC staff receive a GreenGov Presidential Award during a ceremony in Washington, D.C.

Pictured (L-R) Nancy Sutley (CEQ), Debra Kuehl (CDC), Suzanne Lanasa (CDC), Krystin Ambrose (CDC), E.J. ("Ned") Holland, Jr. (HHS)



Multiple groups and individuals from CDC received HHS Green Champions Awards, made of recycled glass.

GreenGov Presidential Award, White House Council on Environmental Quality (CEQ)

Green Innovation: CDC Freezer Challenge

FEC Platinum Award, Federal Electronics Challenge

Platinum Level Partner, Clean Air Campaign

FY2012 HHS Green Champions Awards, HHS

Change Agents: CDC Freezer Challenge

Corporate Responsibility: Defining Play Deserts Virtual Expert Panel

Good Neighbor: David Keicher

FY2012 HHS Green Champions Honorable Mentions, HHS

Energy Management: CDC Fort Collins Green Power Purchase

CDC Honor Awards, CDC

Excellence in Environmental Conservation: OCOO, Chamblee Building 107 Conservation Team

Excellence in Workforce Wellness: OCOO, Healthiest CIO Challenge Planning Team

Who's Who in Sustainability, Atlanta Business Chronicle

Liz York, CDC Chief Sustainability Officer

STRATEGIC PLANNING IN FY2014

2013 saw many significant changes within the Federal sustainability sector, including the introduction of new requirements, formalization of our SSPP Goal Manager structure, and the identification of new sustainability priorities. CDC is making great strides toward the achievement of each of its goals and will continue to work with leadership and responsible offices at the Agency to target opportunities for improvement and progress.

2014 will see the expansion of multiple sustainability projects and programs at the Agency, including recycling pilot programs, sustainable laboratory initiatives, and multiple campaigns aimed at reducing resource consumption. Taking into account sector analyses completed by each CDC SSPP Goal Manager at the end of CY2013, responsible offices and their leadership will begin to further incorporate sustainability and climate change resilience components into their strategic plans. The Quality and Sustainability Office (QSO) will continue to work closely with all Goal Managers, focusing significant efforts on goals that have been scored as "yellow" or "red" on the OMB/HHS Sustainability Scorecards.

In regards to Climate Change Adaptation, CDC is proactively working to assess its operations and facilities nationwide to identify risks presented by future climate change events. Using Federal guidance, CDC will categorize the risks and vulnerabilities posed by climate change, identify agency stakeholders and begin the necessary evaluation to manage both its short and long term effects on the agency's mission and operations.

www.CDC.gov/Sustainability



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