

2015 SUSTAINABILITY REPORT

LEADING THE INITIATIVE FOR
A GREENER FEDERAL GOVERNMENT

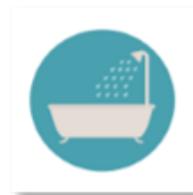


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Sustainability Colleagues,

On behalf of the Office of Safety, Security and Asset Management (OSSAM) and the Quality and Sustainability Office (QSO), I would like to thank everyone at CDC/ATSDR for support of our agency's award-winning sustainability initiatives during 2015. Since our creation in 2008, we have partnered with many offices and individuals across CDC to gain traction within the realm of environmental responsibility and embed sustainability tenets into the structure of our organization. Our office is committed to upholding CDC's mission of global public health promotion and disease prevention through leadership within the sustainability sector. These efforts have yielded incredible results that will help CDC conserve both environmental and financial resources and protect the health of our people and our planet.



In 2015, we achieved several major, lasting accomplishments in various sectors, notably in the areas of Water Use Efficiency and Waste Diversion, that will allow CDC to maintain compliance with Federal sustainability mandates, and also help us operate our facilities more efficiently. CDC has reduced greenhouse gas emissions, conserved water, and saved other key resources since implementing the HHS Strategic Sustainability Performance Plan. What's more, the meaningful partnerships formed throughout the agency have resulted in several awards over the years, including an OCOO Honor Award and a number of HHS Green Champion Awards.

This year has been a year of change with the White House Council for Environmental Quality releasing a new Executive Order 13693. This order, [*Planning for Federal Sustainability in the Next Decade*](#), raises the bar for sustainability goals within the Federal Government. Executive Order 13693 replaces previous Executive Orders, 13514 and 13423, and sets challenging goals for reducing greenhouse gas emissions, energy and water consumption by 2025. Beginning in FY 2016 and ending in FY 2025, the new goals direct agencies to reduce energy use in Federal buildings by 2.5% annually; derive 25% of electric and thermal energy from clean and renewable energy sources; reduce potable water consumption by 2% annually; and reduce greenhouse gas emissions of Federal fleets by 30%. A 50% annual waste diversion goal is also included. As the goals become more challenging, CDC is working hard to plan and implement innovative strategies for achieving them. Throughout this report, we have detailed these successes as well as significant progress towards achieving the mandates of previous Executive Orders. Also highlighted are forward-looking "moonshot" goals, which demonstrate how our stakeholders are strategically planning the next steps to meet the goals of the new Executive Order in 2016 and beyond.

CDC could not accomplish any of this important work without the hard work of our sustainability Goal Managers, the continued support of leadership, and the participation of all CDC employees in our initiatives. I hope that you look through these pages with a sense of pride, as I do, at all we have accomplished this year, and that you will share in my excitement as we maintain positive momentum in the coming years to develop resilient systems within our offices, within our agency, and within our Federal Government.

Sincerely,

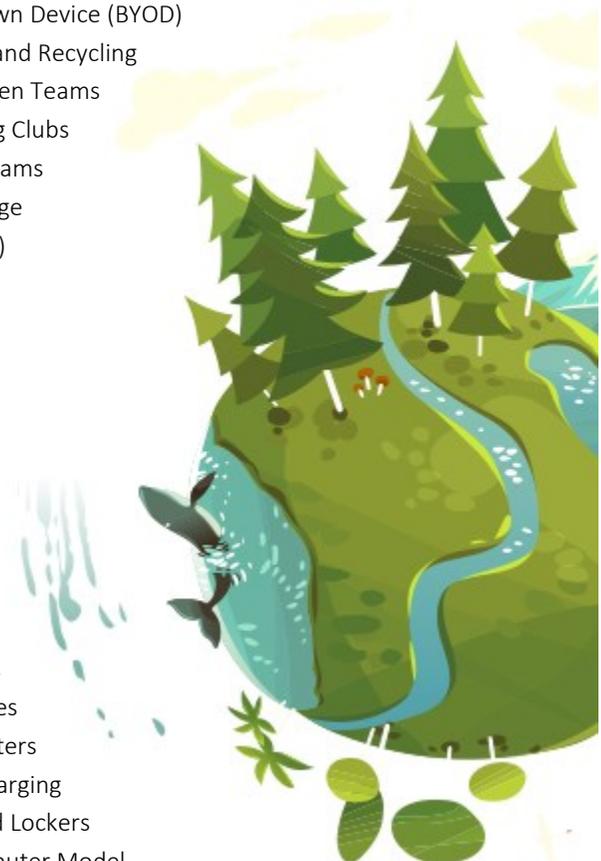
A handwritten signature in black ink that reads "Liz York".

Liz York, FAIA, LEED AP, CNU-A
Chief Sustainability Officer
Associate Director of Quality and Sustainability

SUSTAINABILITY AT CDC

CDC has embarked on several sustainability initiatives over the years.
A select few are identified in this list —

- Automated Paperwork Management Systems
- Bike Trains for Commuters
- Bio-stabilizer Laboratory Pilot
- Bring Your Own Bag (BYOB)
- Bring Your Own Cup (BYOC)
- Bring Your Own Device (BYOD)
- Cafeteria Compost and Recycling
- 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
- Earth Week Campus Walks and Tabling
- Employee Community Garden
- FareShare Green Commuting Subsidies
- Garden Markets
- Green Fleet Vehicles for Employee Use
- Green Laboratory Initiatives
- Healthiest CIO Challenge
- Laboratory Recycling
- Nightly Lighting and HVAC Setbacks and Occupancy Sensors
- No Idling Policies on CDC Campuses
- PC Power Management of Network Computers
- Personal EV Charging
- 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 STRUCTURE AT CDC

CDC’s Quality and Sustainability Office (QSO) operates within the Office of Safety, Security and Asset Management (OSSAM) under CDC’s Office of the Chief Operating Officer (OCOO).

QSO champions sustainability efforts at the Agency while also completing quality reviews of internal processes that incorporate the sustainable tenets of efficiency and responsible resource management into operations across CDC.

Alongside QSO staff, OSSAM leadership has formally appointed Sustainability Goal Managers, listed below, to lead the charge on each HHS Strategic Sustainability Performance Plan (SSPP) goal. This ensures that sustainable changes can be implemented from within responsible offices that maintain authority in various sectors.

Throughout the year, Goal Managers planned goal-related events, liaised with Agency stakeholders and tracked progress towards achievement of overall and interim goals within their 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 2015, CDC leadership identified Goal Managers to serve for the 2016 calendar year, with two new appointments in Goal 5 and Goal 1 – Scope 3 GHG Reduction.



2015 HHS SSPP GOAL MANAGERS

CDC’s Sustainability Goal Managers work within their respective offices to enact changes in support of sustainability goals as well as to promote green behavior among their peers. Several personnel take on the responsibility of multiple goal areas, serving as subject matter experts in their fields and using their knowledge and skills to improve operations across two or more sectors.

<p>ENERGY INTENSITY & GHG EMISSIONS GOAL 1 Bruce Jue, OSSAM/AMSO/EMOSO; Scott Kemp, OSSAM/TSO</p>	<p>GOAL 6 SUSTAINABLE ACQUISITIONS Sarah Gray, OFR/OAS</p>
<p>SUSTAINABLE BUILDINGS GOAL 2 Stephen Klim, OSSAM/AMSO/PCMSO</p>	<p>GOAL 7 ELECTRONIC STEWARDSHIP Timothy Horner, OCIO/ITSO</p>
<p>FLEET MANAGEMENT GOAL 3 Shirley Alston, OSSAM/TSO</p>	<p>GOAL 8 CLEAN ENERGY & RENEWABLES Bruce Jue, OSSAM/AMSO/EMOSO</p>
<p>WATER USE EFFICIENCY GOAL 4 Bruce Jue, OSSAM/AMSO/EMOSO</p>	<p>GOAL 9 CLIMATE ADAPTATION & RESILIENCE Lauren Dufort, OSSAM/QSO</p>
<p>POLLUTION PREVENTION & WASTE REDUCTION GOAL 5 Willie Potter, OSSAM/AMSO/EMOSO</p>	<p>GOAL 10 PERFORMANCE CONTRACTING Sarah Gray, OFR/OAS; Bruce Jue, OSSAM/AMSO/EMOSO</p>

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 updates to the strategy each year, with input from all Operating Divisions (OPDIVs). The HHS SSPP outlines goals and milestones for integrating sustainability into Department operations and is annually revised to reflect current Federal goals and priorities.

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

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 to keep an organized record of the projects underway in their goal area. 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 ORDERS

Executive Order (EO) 13693, *Planning for Federal Sustainability in the Next Decade*, was signed by President Obama in March, 2015. This EO supersedes all previous related Executive Orders and provides updated baseline requirement for Federal sustainability goals through 2025. The EO in its entirety can be found on [The White House website](#).

The goals of the new EO are characterized similarly to previous versions with updated requirements that build on the achievements of past years. The baseline years for energy and greenhouse gas emissions were updated from 2003 and 2008, respectively, to 2015 with the water baseline year remaining the same. The waste diversion rate increased to 50% annually and includes a stronger emphasis on organic waste. The renewable energy requirement became more detailed, with separate requirements for renewables and clean thermal energy. A detailed energy metering plan is also required. These are just some of the many updated goals and mandates of the new EO.

Shortly after the release of the EO, stakeholders from the Office of Safety, Security and Asset Management conducted a strategic planning exercise to define tactical approaches to meeting the new goals. This collaborative effort resulted in a list of "moonshot goals", which will be featured throughout this report.

POLICY ACTS

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

CLIMATE CHANGE REGULATIONS

In 2014, HHS released the second iteration of its official [Climate Adaptation Plan](#) outlining the Department's commitment to assessing the risks of climate change on its facilities and populations. The plan describes current and future planned activities in support of climate change adaptation and also details the potential impacts of climate change on human health in various regions of the country.

GAUGING PROGRESS WITH HHS 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.

Please note that HHS releases scorecards in February/March of each calendar year, reflecting the progress of the previous year after all 2015 data calls are complete. At the time of publication (January 2016), CDC's 2015 scorecard was not yet available.

To view the most recent copy of the HHS Scorecard, visit <http://sustainability.performance.gov/>.



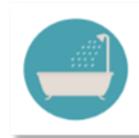
ENERGY INTENSITY
& GHG EMISSIONS



SUSTAINABLE
BUILDINGS



FLEET
MANAGEMENT



WATER USE
EFFICIENCY



POLLUTION PREVENTION
& WASTE REDUCTION



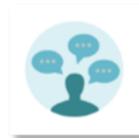
SUSTAINABLE
ACQUISITION



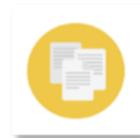
ELECTRONIC
STEWARDSHIP



CLEAN AIR &
RENEWABLES



ADAPATION
& RESILIENCE



PERFORMANCE
CONTRACTING

Scorecard

CDC FY2014 SUSTAINABILITY PERFORMANCE TOOL

Please note that HHS releases scorecards in February/March of each calendar year, reflecting the progress of the previous year after all 2015 data calls are complete. At the time of publication (January 2016), CDC's 2015 scorecard was not yet available.

	Scope 1&2 GHG Emission Reduction Target Met Scope 1&2 GHG reduction target of 10.3% by FY 2020, with a 21.9% reduction in FY 2014.	
	Scope 3 GHG Emission Reduction Target Met Scope 3 GHG reduction target of 3.3% by FY 2020, with an 18.5% reduction in FY 2014.	
	Reduction in Energy Intensity On track to meet 30% energy intensity reduction in goal-subject facilities by FY 2015 compared to FY 2003. FY 2014 target was 27%, actual reduction was 25.4% in FY 2014.	
	Use of Renewable Energy Met target goal of 7.5% use of renewable energy as a percent of facility electricity use. Actual FY 2014 use was 12.7% from renewable electricity sources including at least 3.75% from new sources.	
	Reduction in Potable Water Intensity On track to meet 26% water intensity reduction by FY 2020 compared to FY 2007. FY 2014 target was 14%, actual reduction was 10.6% in FY 2014.	
	Reduction in Fleet Petroleum Use Met fleet petroleum use reduction goal of 20% by FY 2015 compared to 2005, with a 78% cumulative reduction in FY 2014.	
	Green Buildings On track to meet sustainable green buildings goal of 15% (>5,000 GSF) meeting Guiding Principles by FY 2015. FY 2014 actual was 6.5% of total buildings and 23.6% GSF of inventory (as reported in FRPP).	
	Electronic Stewardship Met goal of 95% use of electronic printing products with duplexing features, and 100% of eligible PC, Laptops, and Monitors with power management actively implemented and in use. FY 2014 actual was 100% for each measure.	
	Sustainable Acquisition On track to meet 95% compliance goal of new contract actions meeting sustainable acquisition requirements. CDC FY 2014 measure was 95%.	
	Pollution Prevention & Waste Reduction On track to meet goal of 50% diversion of non-hazardous waste and C&D materials/debris by FY 2015, and increase composting practices. FY 2014 target for non-hazardous waste diversion was 40%, actual diversion was 30.9%. FY 2014 target for C&D material diversion was 40%, actual was 20.1%.	

CDC is pursuing Energy Savings Performance Contracts to reduce energy consumption over the next several years.

Water Conservation Measures identified by the Roybal Campus Water Study will be implemented; wastewater treatment technologies are being researched.

A list of Best Candidates for Guiding Principles Compliance has been identified and will be used to prioritize R&I projects.

Outreach and Education will be conducted across all CDC campuses to increase single-stream recycling rates.

Updated: February 24, 2015

EARTH DAY CELEBRATIONS

The 2015 Earth Day celebration spanned across several CDC campuses. Throughout CDC, employees gathered for a campus Earth Walk, going green and getting healthy. Roybal campus Earth Day celebrations featured an HHS/CDC children’s poster contest, recycling displays, green fleet demonstrations and test-drives, and guided tours through the GYRE exhibition. The Chamblee Campus organized a gardening and composting potluck with CDC’s own Master Gardener, Beth Hamelin, in addition to hosting a “Greening Your Diet” seminar. Both the Roybal and Chamblee campuses organized a Goodwill Donation Event, where employees made contributions to charitable organizations in Atlanta.

2015 AWARDS

Platinum Level Partner, Georgia Commute Options (formerly the Clean Air Campaign)

FY2014 HHS Green Champions Awards, HHS

- Environmental Stewardship: DMSO Team Furniture Reuse
- Electronic Stewardship: ITSO Telework and ITSO Depot Multipack Boxes
- Good Neighbor Award: CDC Food Waste Work Group
- Sustainable Design & Facilities: Angela Wagner
- Water Use Efficiency & Management: Roybal Water Use Mitigation Team
- Green Hero Video Outreach: Chamblee Sustainable Highlight Reel
- Corporate Responsibility: Division of Global Health HIV/AIDS (DGHA)
Virtual Objective Review Process



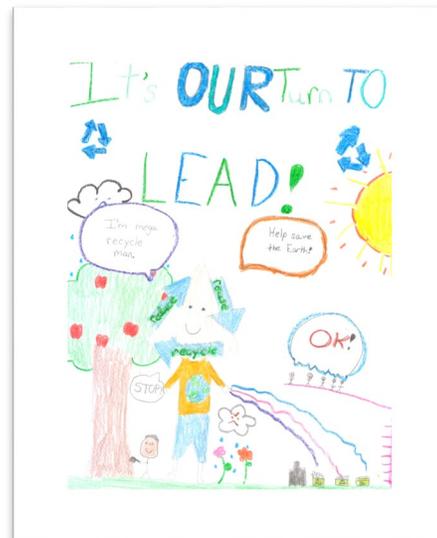
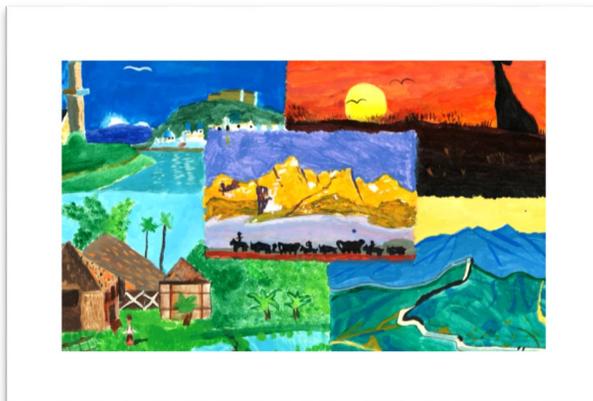
Multiple CDC Champions received HHS Green Champion Awards, made of recycled glass.

FY2014 HHS Green Champions Honorable Mentions, HHS

- Electronic Stewardship: AMSO Freezer Equipment Modifications

OCOO Honor Awards, CDC

- Efficiency Award (2014): Roybal Water Use Mitigation Team
- Creativity and Innovation Nomination (2015): Cafeteria Recycling Shadowbox Team



Two of the CDC Poster Contest Winners: Grace Yan (left) and Grace Xu (right bottom)



GYRE - The Plastic Ocean

The CDC Quality and Sustainability Office participated in an exciting outreach event this year to raise awareness for global environmental issues through a visual art exhibit at the David J. Sencer CDC Museum. The exhibit was sponsored by the David J. Sencer CDC Museum, Office of the Director for Communication; the National Center for Environmental Health/Agency for Toxic Substances and Disease Registry, Office of Non-communicable Disease, Injury and Environmental Health; the Quality and Sustainability Office and ran from January to June of 2015.

GYRE: The Plastic Ocean examined the massive global problem of marine trash, which is choking our oceans and polluting our coasts. Organized by the Anchorage Museum in Alaska, the exhibition explored the complex relationship between humans and the ocean in a contemporary culture of consumption. With stunning visual impact and an astonishing array of ocean trash, the exhibition featured work by local and internationally recognized artists created from debris collected from beaches around the world. Science-based infographics, examples of marine trash, and documentary films place the art in context.

Staff members from QSO hosted coffee receptions and served as docents for museum tours for both CDC employees and external community stakeholders. Visitor groups included Emory students, The Georgia Aquarium, Atlanta City Council, sustainability industry experts and even elementary school students. During the exhibit's six-month duration, more than 48,000 visited the Global Communications Center which features the museum at the point of entry. This created a significant opportunity for exposure and education on this important global issue.

WHAT IS A GYRE?

A gyre is a swirling vortex. The surface circulation of our oceans is dominated by gyres that may be hundreds to thousands of miles in diameter. It is these gyres that re-distribute and aggregate debris in our oceans.

- Anchorage Museum,
original curator of GYRE: The Plastic Ocean



THE ARTISTS

Gyre: The Plastic Ocean tells a global marine debris story through the work of 26 artists hailing from Australia to Finland. This provocative 7,500-square-foot exhibition included more than 80 artworks, about half created specifically for this exhibition. Internationally known artists such as Alexis Rockman, Mark Dion and Chris Jordan are exhibited alongside Alaska artists including Sonya Kelliher-Combs and Tim Remick. Below are examples of artwork visitors saw in the exhibition.

EXHIBITION AT THE DAVID J. SENCER MUSEUM



GOAL 1



- 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.
- Target 10.3% Reduction of Scope 1&2 GHG Emission 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 total number of vehicle miles traveled (VMT) for commuting purposes.

CDC Sustainability Scorecard Rating: Green

2015 ACHIEVEMENTS AND INITIATIVES

CDC's long-term reduction in energy consumption has helped to reduce CO2 emissions from all sources, with a 22.4% reduction in Scope 1 and 2 emissions and a 27.9% reduction for Scope 3 across the Agency since 2008.

SCOPE 1 & 2 - ONSITE ENERGY & UTILITIES

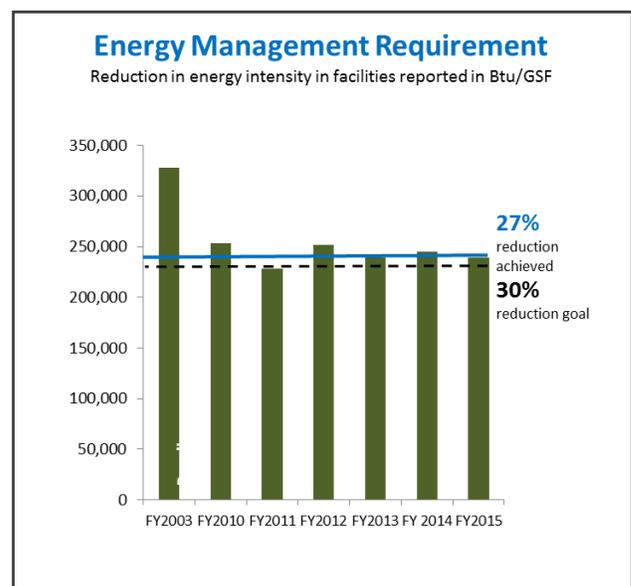
CDC decreased its energy intensity agency-wide by 2.1% between FY2014 and FY2015. Since the baseline year of 2003, the overall energy reduction achieved was 27%. Although CDC's FY2015 energy intensity did not meet the previous Executive Order's goal of 30% reduction from the baseline year, progress was made with a reduction compared to the previous fiscal year contributing to a cumulative reduction only 3% or one year's effort short. There were no extenuating weather related factors in FY2015. However for most of the fiscal year, 24x7 operations were required in multiple office and lab spaces due to CDC's emergency Ebola Outbreak response efforts. The new Executive Order prescribes a 2.5% annual reduction from a baseline year of 2015.

SCOPE 3 - EMPLOYEE COMUTING & TELEWORK

In support of reducing Scope 3 emissions, the Transportation Services Office conducted Transportation Fairs at all

Metro Atlanta Campuses during FY2015. TSO provided information about alternative commutes and teleworking and encouraged staff to utilize these resources as they were able. As a result of these efforts, and due to updates to Telework policies and training modules, CDC has consistently reduced Scope 3 GHG emissions and seen a significant increase in the number of applications for commute options such as Carpool, Vanpool, Fare Share and Telework.

CDC has reduced overall energy intensity by 27% as compared to the baseline year, FY2003.





GOAL 1

Greenhouse Gas Reduction & Maintenance of Agency Greenhouse Gas Inventory

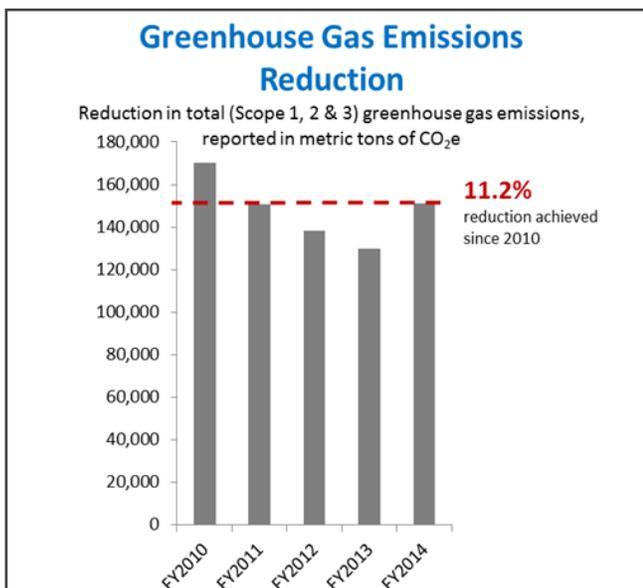
As of 4th quarter 2015, CDC had approximately 1,263 employees that use an alternative mode of transportation for their daily commute, including Fare Share, vanpooling or carpooling, and 6,685 employees on a telework agreement. As of December 2015, 49% of CDC employees were actively teleworking, which is an increase of 3% since FY2014.

In further support of active commuters, TSO continues to manage the bicycle locker program on both Roybal and Chamblee campuses, including the expansion of availability of lockers in late 2015. TSO procured four additional bike repair kiosks and shipped to CDC facilities in Anchorage, Ft. Collins, Pittsburg and Morgantown. As a result of these efforts, CDC has maintained its status as a Platinum Level Partner with Georgia Commute Options, formerly known as the Clean Air Campaign.



LOOKING AHEAD

CDC has reduced GHG Emissions 11/2% since FY2010.



In support of the Executive Order 13693 —

- CDC hopes to perform an enterprise-wide assessment of CDC's refrigerant use and existing tracking system
- In addition, there are plans to install 90% LED lighting across all Atlanta campuses over next 10 years
- CDC will install appropriate metering on CDC-owned data centers by 2018.

GOAL 2



- 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 Rating: Yellow

2015 ACHIEVEMENTS AND INITIATIVES

With over 28% of CDC’s qualifying facilities (owned facilities over 5,000 GSF) meeting or exceeding the requirements of the Guiding Principles for Federal Leadership in High- Performance and Sustainable Buildings (Guiding Principles), CDC has established a stronghold as the premier leader in sustainable buildings among all OPDIVs within HHS. The upcoming fiscal year is an opportunity to share lessons learned from this achievement throughout the agency and beyond with the goal of empowering, motivating and informing others. Using Lawrenceville Building B, and Chamblee’s B107 as success stories, CDC is optimistic that this effort will be received positively by stakeholders and project managers within and outside our agency.

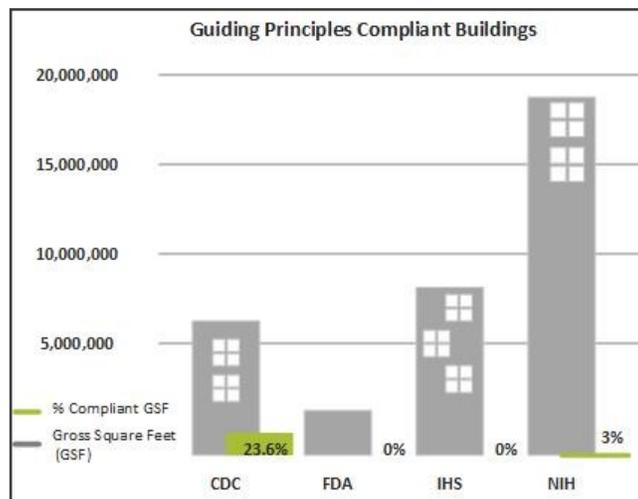
Executive Order 13693 mandated an update to the standards of the Guiding Principles. In order to continue our aggressive commitment to sustainable buildings, CDC has leveraged the presidentially mandated ESPC and UESC

contract vehicles to get sustainable projects off the ground that otherwise may have gone unfunded. Investment Grade Audits are underway at all Atlanta campuses as well as the CDC/ NIOSH property in Pittsburgh. CDC has completed major campus utility infrastructure projects this year as a step towards meeting GP goals. Building 16 on the Roybal campus is currently enjoying use of Central

Utility provided chilled water. Its aging chillers and associated equipment have been permanently removed. This project will have a positive impact to reduce energy and water use on campus. A similar effort is scheduled to break ground this year at the Chamblee Campus.

CDC is also proud to enter the on-site renewable energy arena this year with a solar project at our front door

on the Roybal campus. Although not massive in scale from an energy production standpoint, the solar array project targeted to break ground early this calendar year will be a first and represents a pilot opportunity to inform larger scale future projects.





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 the agency fleet's total consumption of petroleum products 2% per year through the end of FY 2020, relative to a baseline of FY 2005.

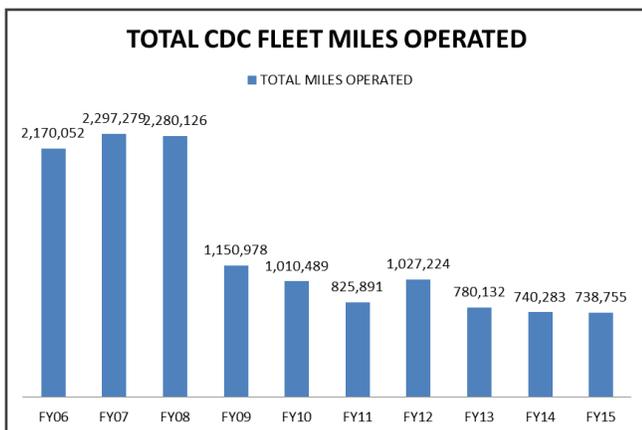
CDC Sustainability Scorecard Rating: Green

2015 ACHIEVEMENTS AND INITIATIVES

CDC consistently strives to achieve reduction in fuel use each year 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. 13693.

Total fleet fuel consumption (gasoline and alternative) decreased slightly from FY2014 to FY2015, with CDC consuming 42,274 gallons during the current year as compared to 45,394 gallons in FY2014.

CDC continues to decrease fleet miles annually.



Two electric cars arrived in early 2014 as part of a General Services Administration (GSA) pilot, for use by CDC employees within the agency fleet. CDC's most efficient vehicles are designated to serve offices that more heavily utilize fleet automobiles. Additionally, CDC continues its "right-sizing" initiative to ensure that the Agency is utilizing resources as efficiently as possible and thus reducing its environmental footprint. As a result of this effort, as well as smart trip planning, CDC has continuously reduced its total miles operated each year since 2006. By avoiding these fleet vehicle miles traveled, the agency's Scope 3 Greenhouse Gas Emissions have decreased by 31%.

LOOKING AHEAD

In support of the Executive Order 13693 —

- Transportation Services Office will ensure that 20% of new passenger vehicle purchases are Electric Vehicles (EVs) or plug-in hybrids to achieve annual progress toward 20% Zero-Emission Vehicles or Plug-in Hybrid Vehicles by 2020.
- Additionally, TSO will install charging infrastructure to support the appropriate number of EV or plug-in fleet vehicles at CDC owned-campuses by 2018.

GOAL 4



- 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 Rating: Yellow

2015 ACHIEVEMENTS AND INITIATIVES

CDC achieved an incredibly large reduction in water usage during FY2015, thanks to a concentrated effort by OSSAM staff to identify and correct operational issues that were resulting in thousands of gallons of water being wasted each day. CDC has reduced its water intensity by 55% since FY2013 to FY2015, achieving a \$2.3 million savings in utility costs. CDC has many measures in place intended to moderate its water use, but noted in early 2012 that a disproportionate amount of water, nearly 25% of the total Roybal campus usage, was being consumed by Building 23. This presented an opportunity to take a closer look at operations.



LOOKING AHEAD

In support of the Executive Order 13693 —

- Implementation of Water Conservation Measures (WCMs) identified by Roybal campus-wide water assessment.
- Conduct outreach, education and operational water reviews to identify opportunities for reduction in top consuming laboratory spaces.

Our neighbor Emory University has installed a WaterHub black water filtration system, which takes waste water and filters it to the point where it can be used for toilet flushing and HVAC make-up water.



GOAL 4

Water Use Efficiency & Management

This high level of consumption was coupled with a spike in campus-wide usage between FY2011 and FY2012 that left the Agency with its only “Red” rating on its annual Sustainability Scorecard.

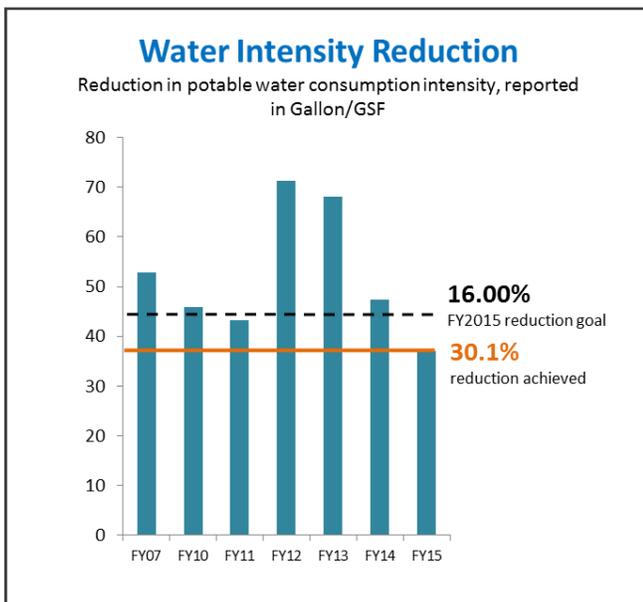
In 2014, CDC began an extensive water use assessment at the Roybal Campus in Atlanta. The scope of the assessment included analysis and documentation of the existing campus domestic water system, identification of water sources and waste water outflows and identification of feasible water conservation measures (WCMs).

The study was completed in the Spring of 2015 with several low to no-cost WCMs already implemented. During sub-metering investigations, an opportunity for reduced flush valve water consumption was identified in Building 23 and

an operational change was made to mitigate further unnecessary consumption. The resulting water reduction has been substantial, approximately 60,000-80,000 kilo gallons per year. In addition, it was discovered that building sand filter systems in B14 and B17 were backwashing for longer than needed. This issue was corrected, saving approximately 1,800 kilo gallons per year.

The water savings that resulted from the study increased our scorecard rating from red to yellow in 2015. The water study team won a 2014 HHS Green Champion Award and a 2014 OCOO Honor Award for their exceptional work on managing the water study and creating a roadmap toward meeting the goals of EO 13693 through 2025. The expected outcome of the Water Conservation Measures outlined in the study, if implemented as planned, should achieve the annual 2% reduction through 2020 required by the Executive Order.

CDC has reduced agency-wide water use intensity by 30.1% since to the 2007 baseline year.



The CDC Water Use Mitigation Team was recognized by Elena Garrison, HHS Director of Real Property Management Services at the 2014 Green Champion Awards ceremony.



GOAL 5



- Increase source reduction of pollutants and waste.
- Divert at least 50% non-hazardous solid waste by FY 2015 and every thereafter.
- Divert at least 50% C&D materials and debris by FY 2015 and every thereafter.
- 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 Rating: Yellow

2015 ACHIEVEMENTS AND INITIATIVES

In an effort to evaluate opportunities for food waste diversion, the CDC engaged with local community partners to gain knowledge of best practices and lessons learned from composting in cafeteria operations. Employees from QSO, AMSO and LMSO coordinated group site visits to both Emory University and the Federal Reserve Bank headquarters in Atlanta to observe composting operations in action. Groups exchanged ideas and discussed challenges associated with implementation of composting. The tours provided training and awareness of best practices in composting for CDC attendees, which included building managers, facilities personnel and other stakeholders. Establishment of this partnership between thought leaders provided mutual benefit and resulted in a 2014 HHS Green Champion Award. CDC is now piloting a composting program at Chamblee Campus. Cafeteria staff collect fruit and vegetable scraps from a preparation station, placing them into a compost bin. Rachel Worley, Executive Director of the CDC Community Garden, facilitated transport of these food scraps from the cafeteria to the garden each week and ensured proper administration of the composting. This pioneer effort is a tremendous success story for organic waste diversion.

This year CDC overhauled its waste removal and recycling vendor contracts at Atlanta Campuses. This represents a radical departure from the previous arrangements. The

goal was to consolidate as many waste operations as feasible to a single point, turn-key vendor who can better and more efficiently divert landfill waste, while at the same time providing more robust reporting data.

QSO also partnered with the CDC Wood Shop to conceptualize and craft a series of informational shadow boxes and tray holders for the waste disposal area in CDC's Roybal Building 21 Cafeteria. The boxes contain specific trash examples depicting what materials can and cannot be recycled. Recycling communication is a significant challenge due to language barriers,

CDC's Recycling shadow boxes at the Roybal Campus





GOAL 5

Pollution Prevention & Waste Reduction

time constraints and patrons moving through the trash receptacle area in a hurry to get back to work. In the past, signs took too long to read and lacked clear depiction of items sold in the cafeteria. The idea for the innovative shadow box tool was born after gathering examples from peer institutions and feedback from cafeteria patrons via an intranet survey. For maximum impact and clarity, each shadow box lists and illustrates the types of materials that can and cannot be recycled per our waste contract. Not sure where to throw your used coffee cup? A coffee cup is actually displayed in one of the shadow boxes. Simply drop the cup in the bin directly below. Samples of all cafeteria waste possibilities are included in the boxes.

Tri-fold informational brochures supplemented the concept and are placed on cafeteria tables. The shadow boxes were installed directly above trash receptors (point-of-decision) to be most effective. The Wood Shop team was exceptionally helpful with the process, providing excellent customer service. They invited the QSO team to the warehouse for initial brainstorming on design and construction. They also made multiple site visits after that initial meeting to ensure they thoroughly understood the requirements of the project, and they shared their expertise by repeatedly offering helpful suggestions that resulted in the creation of a professional product that was nominated for a 2015 OCOO Honor Award.

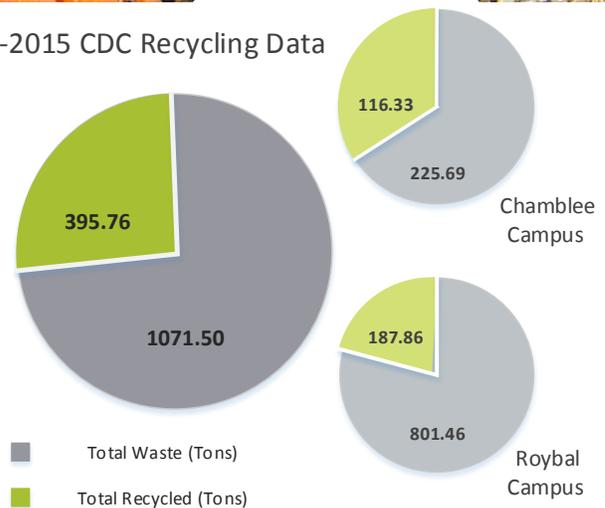


LOOKING AHEAD

In support of the Executive Order 13693 —

- CDC's goal is to divert at least 50% of agency-generated waste per year from landfills. This includes the establishment of at least one commercial composting program by the year 2017. A methane capture system utilizing Lawrenceville property will be considered as well as scaling up on-site efforts piloted at Chamblee to enrich plantings and landscaping campus-wide.

2014-2015 CDC Recycling Data



CDC Recycling Data was collected monthly 08/2014-09/2015 for the Roybal, Chamblee, and L'ville campuses.

GOAL 6



- 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 Rating: Green

2015 ACHIEVEMENTS AND INITIATIVES

The Office of Acquisition Services recently underwent a reorganization, which resulted in the selection of a new Director of the Office of Financial Resources, Christa Capozzola. Christa and fellow OAS/OFR leadership team members are collaborating with team leads to establish solid goals, create measurable approaches to reach those goals, and improve overall visibility of sustainable acquisitions efforts while pursuing our mission as an organization.

The contract reporting function has been realigned and clear guidelines have been established for demonstrating compliance. The new reporting parameters caused a shift in the percentage of contracts compliant and therefore required a more detailed review of all contract actions. However, the new approach has established a solid base for more accurate reporting in the future. In agreement with HHS, The Office of Acquisition Services considers training to be the key to success in Contracting within the new Sustainable and Bio-based requirements for contracts. Every Contract Specialist is required to complete Green Procurement Training once every two years. CDC is 100% compliant with this self-imposed requirement. We hope to augment this basic training by leading another course in Green Procurement in conjunction with the OCOO Training Forum in May, 2016. Performance contracts, addressed also under Goal 10, have been a major

focus of the procurement office this year. Both the Utility Energy Services Contract in Atlanta and the Energy Services Performance Contract in Pittsburgh went through rigorous review and approval processes, and are on track to meet HHS deadlines. Significant training and education was necessary to navigate the procurement process for these contracts and OAS/OFR made the resources available for us to be successful. The UESC team was honored with the 2014 Green Champion Award for Sustainable Acquisitions in an award ceremony at the Roybal Campus last June. This continues to be an exciting new model for government contracting. As the largest domestic buyer and user of energy, the Federal Government is leading the way and setting the example for private industry to follow.

LOOKING AHEAD

In support of the Executive Order 13693 —

- Office of Financial Resources/Office of Acquisition Services will partner with HHS OPDIVs to implement strategies to create awareness and collect data for credit card purchases to measure compliance for purchasing of bio-based products.



GOAL 7

Electronic Stewardship & 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 Rating: **Green**

2015 ACHIEVEMENTS AND INITIATIVES

CDC's Information Technology Services Office (ITSO) continues to meet or exceed standards set by the Executive Order in regard to electronics stewardship. As of FY2015, 100% of CDC's 22,000 laptops, PC computers, televisions and servers 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. CDC has consolidated all Atlanta based data centers into three centralized facilities and continues consolidating and converting physical servers into virtual servers whenever possible. Lastly, CDC continues to ensure that all network printers are set to migrate to a power saving mode when not in use, and all printers are set to print in duplex mode by default.

CDC has established an excellent Remote Access Capability which enables thousands of staff members to telework daily thereby producing outstanding energy savings, reduced carbon emissions and ultimately reducing the need for office and building space both for individual office space as well as conference and meeting space. Specifically, CDC has created an excellent and robust Remote Access which allows CDC staff to remotely access email, file

shares, intranet and software applications. Statistics reveal that daily, nearly one third of the CDC workforce utilize this remote access capability. For situational telework, such as ice storms, our remote access systems are utilized by as many as 11,000 staff simultaneously resulting substantial resource conservation.

Over the last year, the CDC has substantially reduced the number of shipping cartons used to ship and deliver CDC IT equipment. Specifically, each year, CDC orders and receives thousands of computers, monitors, printers and other miscellaneous IT related equipment. Vendors typically ship these devices individually requiring each item to be individually wrapped and packaged in typical plastic and cardboard containers. During FY 2014 and 2015, CDC requested that our primary vendor, Dell Computers, consolidate all IT equipment delivered to CDC, thereby saving thousands of cardboard cartons and hundreds of plastic bags. As a result, CDC saved 3,457 boxes and cartons and most of the individual plastic parts involved in the shipping and packaging process. Furthermore, CDC also saved over 700 ninety-gallon plastic bags that cannot be compressed or recycled.

The exceptional efforts of the CDC ITSO team were awarded with two 2014 HHS Green Champion Awards in Electronic Stewardship.

GOAL 8



- Utilize renewable energy sources for 7.5% of total facility energy use, including at least half from new renewable sources.

CDC Sustainability Scorecard Rating: Green

2015 ACHIEVEMENTS AND INITIATIVES

For the fifth consecutive year, CDC has exceeded its renewable energy goals, procuring 11.8% 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 utility 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 operations. CDC also purchases green power from Georgia Power for several of its Atlanta-area campuses as part of a three-year agreement,

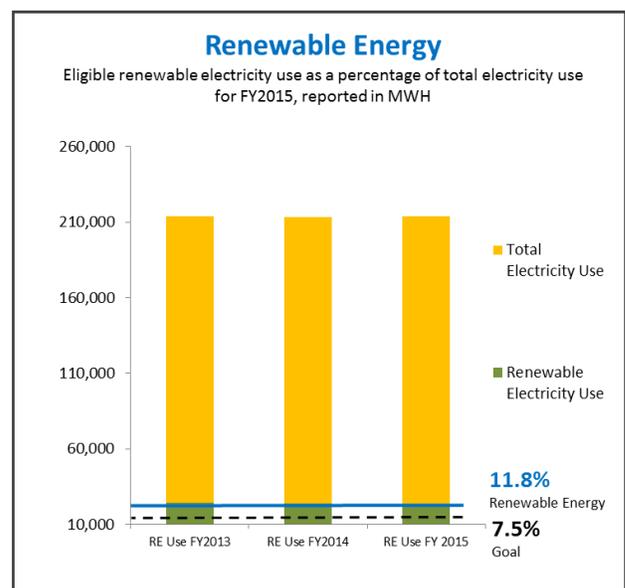
which it plans to renew at the contract's end. In addition to green power purchasing, CDC is also exploring opportunities for on-site renewable energy generation. At its Atlanta campuses, solar photovoltaic energy is the most viable option for renewables. The team is embarking on a demonstrative solar array installation at the Roybal Campus Visitor's Center, which will feature approximately 10KW of solar capacity. The Utility Energy Savings Contract, as discussed in Goal 10, is also considering up to 200MWH of solar energy generation across all Atlanta owned campuses. These projects will contribute greatly to a multi-faceted approach to renewable energy at CDC.

CDC has reduced agency-wide water use intensity by 30.1% since to the 2007 baseline year.

LOOKING AHEAD

In support of the Executive Order 13693 —

- CDC pledges to install on-site renewables, with a project minimum of 10KW output, on at last one CDC-owned campus in FY2016 toward the achievement of 20% renewable electricity portfolio-wide by 2020. CDC has also started planning for its first net-zero energy building to be located at the Lawrenceville campus.





GOAL 9

Adaptation & 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.

CDC Sustainability Scorecard Rating: N/A

2015 ACHIEVEMENTS AND INITIATIVES

As required by the Executive Order, CDC strives to incorporate climate adaptation and resilience solutions into the design of its built environment via campus master planning. Further, CDC continues to develop and implement programs to address the health impacts of climate change on a national, regional and community scale.

CDC's National Center for Environmental Health (NCEH) has developed The Building Resilience Against Climate Effects (BRACE) framework, a five-step process that allows health officials to develop strategies and programs to help communities prepare for the health effects of climate change. Part of this effort involves incorporating complex atmospheric data and both short and long range climate projections into public health planning and response activities. Combining atmospheric data and projections with epidemiologic analysis allows health officials to more effectively anticipate, prepare for, and respond to a range of climate sensitive health impacts.

The American Public Health Association "Adaptation in Action" report published this year highlights the BRACE framework among other national case studies in climate health and adaptation.

The full report can be found [here](#).

CDC's George Luber, Program Chief of Climate and Health, was the lead author and editor of "Global Climate Change and Human Health: From Science to Practice," which was published in November 2015. The book examines the environmental crisis from a public health and clinical health perspective, giving students and clinicians the information they need to prepare for the future of health care. Additionally, NCEH hosted several webinars on climate and health throughout the year and a special session at the annual CDC Epidemic Intelligence Services (EIS) conference, which was held in Atlanta in April.



LOOKING AHEAD

In support of the Executive Order 13693 —

- In support of addressing climate resilience, CDC will explore fuel cell, geothermal, on site water treatment and other new technologies to work toward municipal utility independence where possible.

GOAL 10



- Evaluate 25% of agency’s most energy intensive buildings for use with energy performance contracts.
- Prioritize top ten projects, which will provide greatest energy savings potential.
- Identify and commit to include 3-5 onsite renewable energy projects in energy performance contracts.
- Provide measurement and verification data for all awarded projects.
- Provide monthly contract status updates to HHS and CEQ as required.

CDC Sustainability Scorecard Rating: N/A

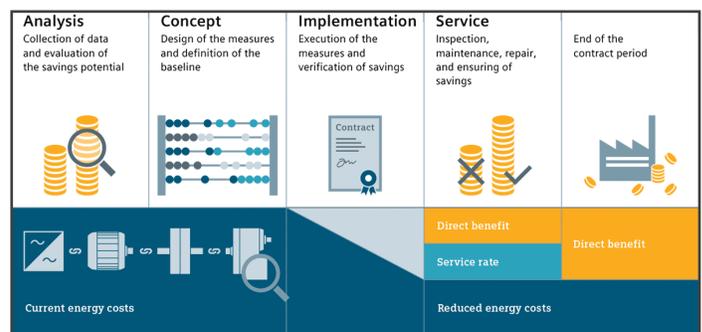
2015 ACHIEVEMENTS AND INITIATIVES

Energy Performance Contracting is an innovative financing technique that uses cost savings from reduced energy consumption to repay the cost of installing energy conservation measures. Normally offered by local utilities and private sector companies, this innovative financing technique allows building users to achieve energy savings without up-front capital expenses. The costs of the energy improvements are borne by the performance contractor and paid back out of the energy savings. Other advantages include the ability to use a single contractor to do necessary energy audits and retrofits and to guarantee the energy savings from a selected series of conservation measures. (Source: HUD.gov)

HHS has committed to \$92.7 million of performance contracts to be awarded by the end of CY 2016. As of April 15, 2015, \$43.9 million in contracts were awarded and an additional \$30.8 million were in the pipeline. Currently, \$63.2 million of contracts are awarded, \$11.8 million of contracts are in the pipeline to be awarded by December 31, 2016. Of the HHS total, CDCs commitment to performance contracts is approximately \$20.46 million, or 22%.

At time of publication, the Utility Energy Savings Performance Contract, which covers all CDC Atlanta owned campuses, is currently beginning the Investment Grade Audit (IGA) phase.

Below is a diagram of the ESPC process and how the method is able to provide cost savings over the length of the performance contract.



Graph of cost savings before and after ESPC usage.

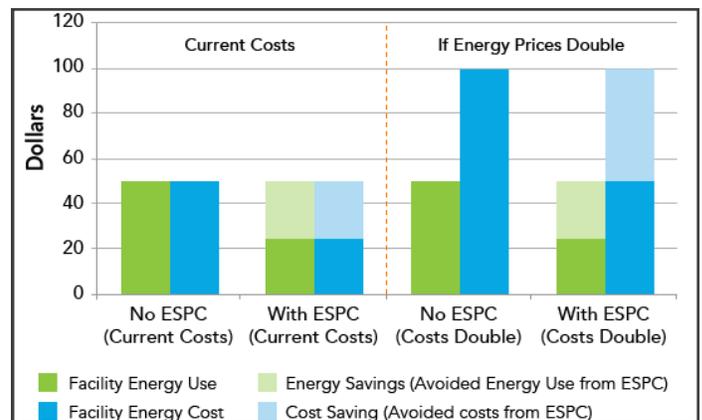


Diagram Credit: www.energy.gov



GOAL 10

Performance Contracting

BEFORE PERFORMANCE CONTRACTING



AFTER PERFORMANCE CONTRACTING



ENERGY & UTILITY

Costs

MAINTENANCE

Costs

SAVINGS

Greater or equal to contract costs

PEOPLE SAVINGS

Additional reduction of energy costs

During the IGA phase, selected Energy and Water Conservation Measures (ECMs/WCMs) are analyzed in detail by the contractor to provide guaranteed estimates of construction costs, utility savings and payback figures. This project includes \$4.23 million of direct investment. Selected ECMs thus far concentrate on LED lighting upgrades, energy recovery systems, and solar PV systems.

The \$16.23 million, 19-year Energy Savings Performance Contract at the Pittsburgh campus provides a unique opportunity to bundle several urgent energy and water upgrades together under one contracting mechanism. Among other ECMs and WCMs, this project will provide relief and remedy for an antiquated steam distribution system as well as decommission several obsolete buildings that are no longer in use. The ESPC is currently entering the IGA phase as well and construction is expected to be awarded by October 2016.

LOOKING AHEAD

In support of the Executive Order 13693 —

- CDC' has projected \$16.2 million in savings as a result of obligated Energy Saving Performance Contracts over the next 20 years.
- CDC' has projected \$4.2 million in savings as a result of obligated Utility Energy Saving Performance Contracts over the next 20 years.

CONTACT US:

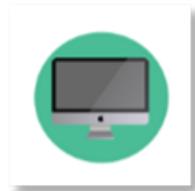
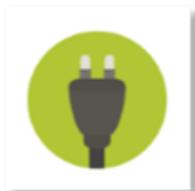
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