



Federal Green Challenge

Federal Agencies Leading by Example
in Sustainable Operations

TOPICS:

- Making it easier to buy greener products and services
- Final FGC Data Reporting Presentation

January 17, 2018



epa.gov/fgc

 **Rethink**



Webinar Panelists

- Michael Bloom, Sustainability and Green Program Advisor, U.S. General Services Administration, Office of Federal High-Performance Green Buildings, Speaker
- Jennifer Hazelman - GSA, Federal Acquisition Service, Office of Policy and Compliance, Sustainability Branch, Speaker
- Rob Guillemín – Federal Green Challenge Regional Coordinator, USEPA New England, Boston, MA, Speaker
- Chris Newman – Federal Green Challenge Regional Coordinator, USEPA Midwest Region, Chicago, IL, Host
- Marlene RedDoor – Federal Green Challenge National Coordinator, USEPA HQ Office of Resource Conservation and Recovery, Washington, DC, Moderator

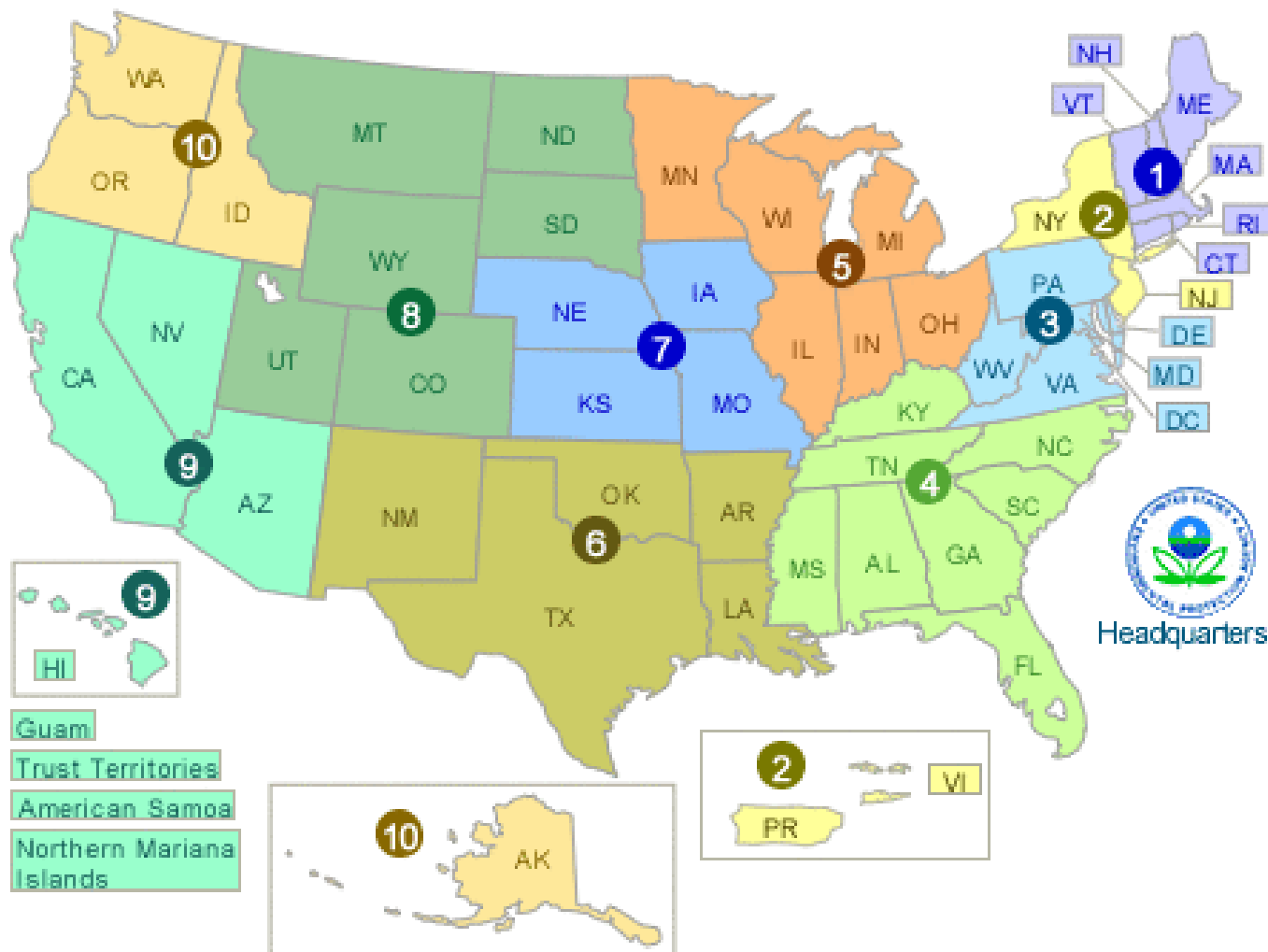
<https://www.epa.gov/fgc>





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 **Rethink**



Sustainable Facilities Tool

Make Effective Decisions

Presented by:

Michael Bloom

January 17, 2018

Sustainable Facilities Tool

Make Effective Decisions



FEATURED CONTENT



SFTool Product Search

Save time by searching brands and products that comply with federal sustainability requirements. Sort compliant products by performance, create projects, and gather documentation to streamline procurement.



Wayne L. Morse Courthouse

Discover Cost-Effective Upgrades

Determine what upgrades could be most cost-effective based on the size and location of your building.



Take the Assessment

Ensure economic facility operation by using FEDSAT to demonstrate compliance with the Federal Buildings Personnel Training Act.



Achieve High-Performance



SFTool Product Search

Save time by quickly finding brand name products that meet federal procurement requirements.



Green Procurement Compilation

Discover which products and services have federal green procurement requirements.



Facility Topics

ENERGY

WATER

HEALTH

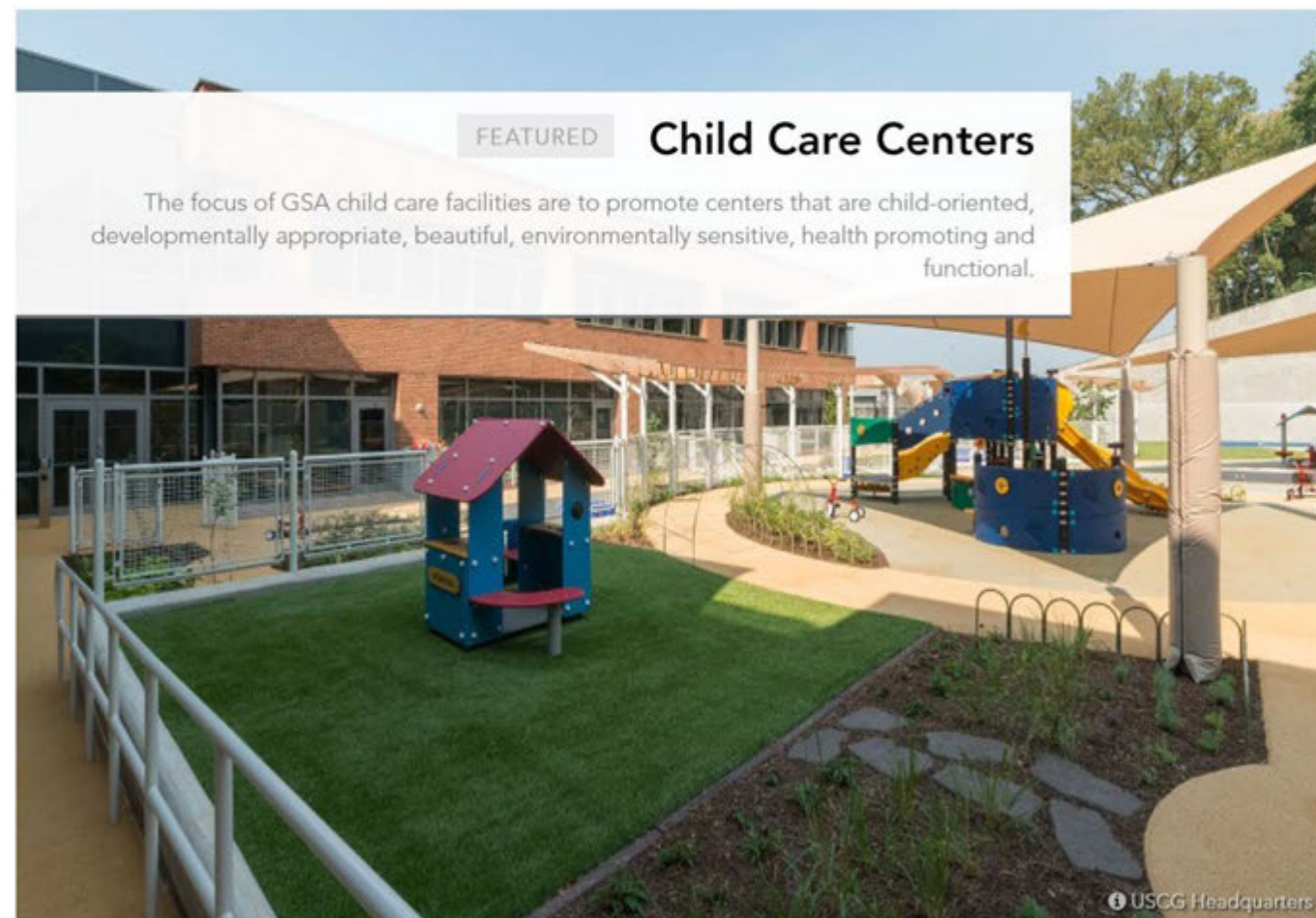
OTHER TOPICS

FEDERAL REQUIREMENTS

AGENCY PRACTICES

FEATURED

The first step to creating a high-performance facility is to learn about the components. Use the sections below to learn how you can reduce utility costs and improve occupant health in your facility.



◀ Choose a topic to learn more



Agency Green Building Practices

Federal agencies have discovered many effective practices to make their buildings sustainable. Many share policies, strategies, case studies and tools through the Interagency Sustainability Working Group (ISWG).

See how these resources relate to the requirements of Executive Order 13693 with SFTool's [Hot Annotations](#).

[FedCenter](#) Federal Officials Only

[Federal Green Building \(FedGB\)](#) Federal Officials Only



Selected policies and practices are provided below.

A link or mention anywhere on the SFTool is not an endorsement of the views, products, or services provided by the linked resource.



Policies & Strategies

This section is devoted to the broad policies and strategies covering the whole government or entire agencies, services or bureaus, which set the context for achievements in Federal green building.

[Read More](#)

Tools & Training

This section covers and links to systems, methods, databases, calculators, checklists, etc. designed to help Federal officials and their partners achieve their green building goals.

[Read More](#)

Best Practices & Case Studies

One of the best ways to learn and make the case for green building innovations is to point to others' experience in implementing these innovations – both their successes and lessons learned. This section focuses on examples of specific practices and projects that agencies have actually employed.



SFTool – What do you need to do?

Tools to help with everyday tasks.

Understanding Federal Requirements



Annotated Executive Orders

Project Planning & Development



Cost Effective Upgrades

Procurement

**Green
Procurement
Compilation**

GPC

Operations & Maintenance



Federal Facilities Skills Assessment Tool

Guiding Principles for
Sustainable Federal Buildings
and
Associated Instructions
The Council on Environmental Quality
February 2016

Guiding Principles



Submetering



SFTool Product Search



Sustainable Facilities Tool

Make Effective Decisions

Search SFTool



FEATURED CONTENT

SFTool Product Search

Save time by searching brands and products that comply with federal sustainability requirements. Sort compliant products by performance, create projects, and gather documentation to streamline procurement.



Wayne L. Morse Courthouse

SFTool Product Search

Your link to simpler environmentally responsible purchasing

GSA has expanded our Sustainable Facilities Tool (SFTool) with a new tool that streamlines sustainable product procurement for vendors and buyers. GSA wants to make it easier for project teams to buy or specify environmentally preferable products. We believe teams will benefit from linking the environmental requirements in SFTool's [Green Procurement Compilation \(GPC\)](#) to a detailed product database that simplifies searching.

Search Brand Name Products

Light Bulbs

Last Updated: 09/19/17

Click to see brand name products that meet these requirements



A man-made source of optical radiation.

Or type <https://sftool.ecomedes.com>





Product Category

[Appliances \(6,701\)](#)
[Building Furnishings \(4,811\)](#)
[Cafeteria Products \(3,303\)](#)
[Construction Materials \(4,249\)](#)
[HVAC/Mechanical \(7,618\)](#)
[Lighting and Ceiling Fans \(247,626\)](#)
[Office Electronics \(9,823\)](#)
[Plumbing Systems \(25,568\)](#)

[show more](#)

Brand

[Albeo \(2,564\)](#)
[Columbia Lighting \(6,594\)](#)
[HOLOPHANE \(4,801\)](#)
[kim Lighting \(2,583\)](#)
[Lithonia Lighting \(14,437\)](#)
[McGraw-Edison \(3,083\)](#)
[Metalux \(6,101\)](#)
[Streetworks \(6,534\)](#)

[show more](#)

Federal Programs

☐ [Energy Star Certified \(65,696\)](#)
☐ [Safer Choice Certified \(1,897\)](#)
☐ [WaterSense Certified \(25,604\)](#)

Third Party Standards and Ecolabels

☐ [BIFMA level \(3,986\)](#)
☐ [DLC Qualified \(210,087\)](#)

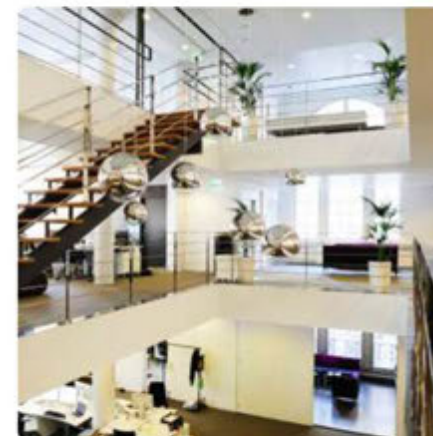
Welcome to SFTool Product Search

Welcome to the SFTool Product Search, your link to simpler environmentally responsible purchasing.

Have an idea about improving this service? Please [contact us!](#)



Appliances



Building Finishes



Building Furnishings





How can we help you today?

SEARCH

[Login or Signup](#) to submit a new ticket

[Solution home](#) / [SFTool Help](#)

Summary and FAQ



Summary

GEA is expanding our Sustainable Facilities Tool (SFTool) with [sftool.ecomedes.com](#), a new pilot platform that streamlines sustainable product...
Tue, 13 Dec, 2016 at 9:27 PM



Overview

1. Focus Here you will find only products that meet minimum federal guidelines. We have gathered and consolidated product information from ac...
Mon, 3 Oct, 2016 at 12:08 AM



Account Sign Up and Log In

Creating an account on ecomedes is easy and takes less than a minute... You are not required to create an account, but there are advantages to doing so...
Sun, 2 Oct, 2016 at 10:17 PM



Product Search

We provide a powerful set of search capabilities. With 150+ product categories/subcategories, 5,600+ brands and 300,000+ products, we provide you several...
Sun, 2 Oct, 2016 at 10:49 PM



Viewing Product Data

We organize product data using lenses, represented by the icons below. These lenses appear as part of each and every product data card you see when search...
Wed, 22 Mar, 2017 at 10:07 PM



Product Comparison

It is simple and easy to compare products. Step 1: To compare products side-by-side, just click within a product card. A blue outline will appear...
Sun, 2 Oct, 2016 at 11:40 PM



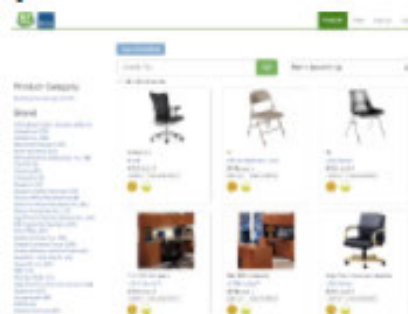
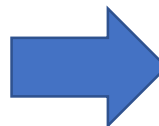
Product ROI Analysis

At launch, the Lighting and Plumbing Fixture categories include Product Return on Investment (ROI) analysis, which allows you to see the simple impact of ...
Sun, 2 Oct, 2016 at 11:45 PM



Project and Procurement Analysis

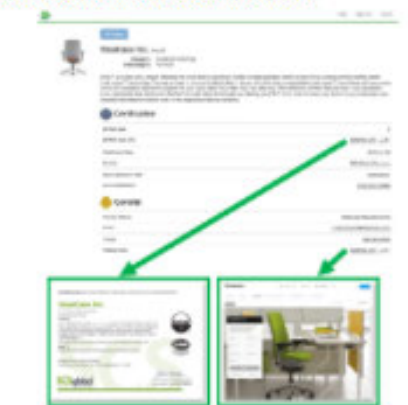
Create a Project to organize all your product choices in one place so you can track progress on energy and water savings, gather documentation and stream...
Wed, 22 Mar, 2017 at 10:18 PM



When you select a product name we display a full product data page. The product data displayed will have a source and date stamp. Note when you click on a product over the data stamp, you will not be product owner for the product. Images of your ecomedes.com. Our data from certification databases, such as GreenGuard, Greenguard and Greenguard. But these databases do not have a certain product image, then pictures and vendors interested in images of the user experience can contact us at [info@ecomedes.com](#) about providing product images and additional product data.



Some products have additional data levels available, such as product pages and 2nd Party Audits. You can access these through the simple navigation on the product card to directly access that information without additional web searches.



Every product found on [SFTool.ecomedes.com](#) contains at least one of the environmental performance attributes required by federal procurement programs owned by the GSA. Some product cards list a full array of environmental performance data and others may include only a single attribute of certification. See something missing, contact a representative at [info@ecomedes.com](#) to let us know.

[View Comparison](#)



Name (ascending)

1 - 18 of 2,793 results

Product Category

Building Furnishings [remove](#)

Product Subcategory

Furniture [remove](#)

Product Type

Seating [remove](#)

Product Subtype

Classroom (64)

Executive (282)

Guest/Side (932)

Lounge (741)

Patient Room (173)

Patient Seating (9)

Stacking (134)

Task (854)

[show more](#)

Brand

Allseating (111)

Bernhardt Design (128)

Dauphin North America (113)

Global Furniture Group (306)

High Point Furniture Industries (133)

KI (113)

La-Z-Boy Furniture Contract (229)



izzy+

Gil

Category Building Furnishings

Subcategory Furniture

[add to](#) [documentation](#)


izzy+

Gulliver

Category Building Furnishings

Subcategory Furniture

[add to](#) [documentation](#)


izzy+

Matey

Category Building Furnishings

Subcategory Furniture

[add to](#) [documentation](#)


izzy+

Tess

Category Building Furnishings

Subcategory Furniture



Paoli, Inc.

Diverge

Category Building Furnishings

Subcategory Furniture



Paoli, Inc.

Sonora

Category Building Furnishings

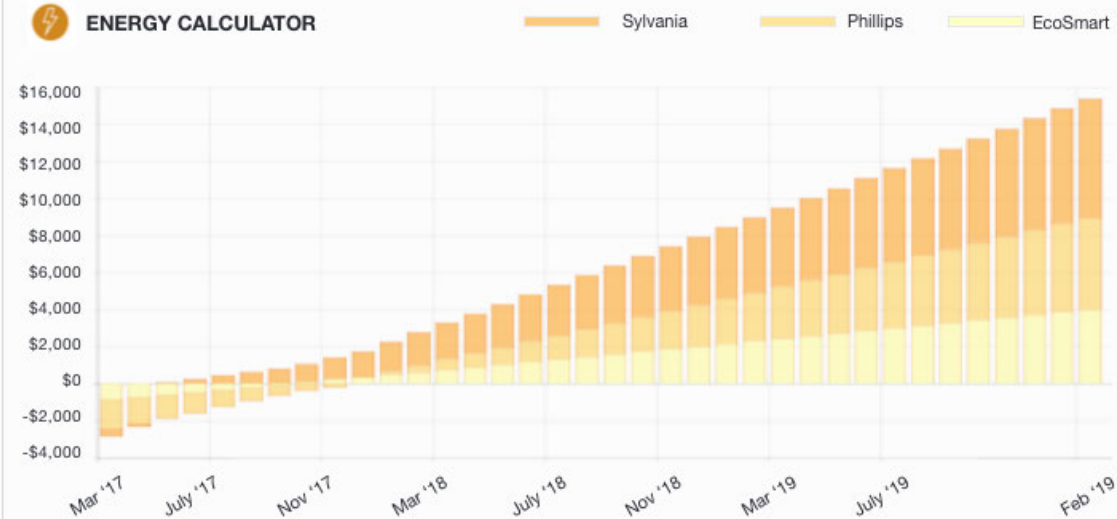
Subcategory Furniture

-  General
-  Energy
-  Water
-  Lifecycle
-  Materials
-  Planet
-  People
-  Certification
-  Economic

(3) PRODUCTS	 REMOVE	 REMOVE	 REMOVE
			
	Sylvania 2D4 sylv_oscarra	Phillips 034L phil_34L7	EcoSmart 2b eco_smart
UNIT QUANTITY	100 units	100 units	100 units
UNIT PRICE	\$7.00 ea	\$13.99 ea	\$20.00 ea
TOTAL	\$700.00	\$1,390.00	\$200.00



ENERGY CALCULATOR



SAVINGS SUMMARY

Monthly kWh Saved: 3,308 kWh
 Yearly kwh saved: 39,697kWh
 Total kWh saved: 119,092 kWh

Monthly cash saved: \$496
 Yearly cash saved: \$5,955
 Total cash saved: \$18,668



Cost-Effective Upgrades

Learn what energy conservation measures could be most cost-effective based on the size and location of your building.

[Go to the Tool](#)

Why Upgrade?

Incorporating the right high-performance measures into your building can drive efficiency and cost savings while also increasing occupant productivity and improving health and satisfaction. In short, it's just good business.

While building owners and tenants increasingly demand incorporation of sustainability in their facilities, they often struggle to identify high-performance improvements that can be performed within a certain budget or timeframe.

The Cost Effective Upgrades Tool

This tool is designed to help identify upgrades and energy conservation measures that can enhance your building's sustainability. Get started by clicking the button above and selecting your building size and climate zone! If you're curious about where the data for the tool comes from, [visit our FAQ](#). To help with procurement, you can generate reports outlining each upgrade, including its economic benefits. This tool is just one way



Cost-Effective Upgrades Tool

Please choose the building size and climate zone that most closely resemble your building's size and location. Note that the data may vary if you only occupy a portion of a building. Click the continue button when finished.

Select Your Building Size



5,000 gsf



10,000 gsf



25,000 gsf

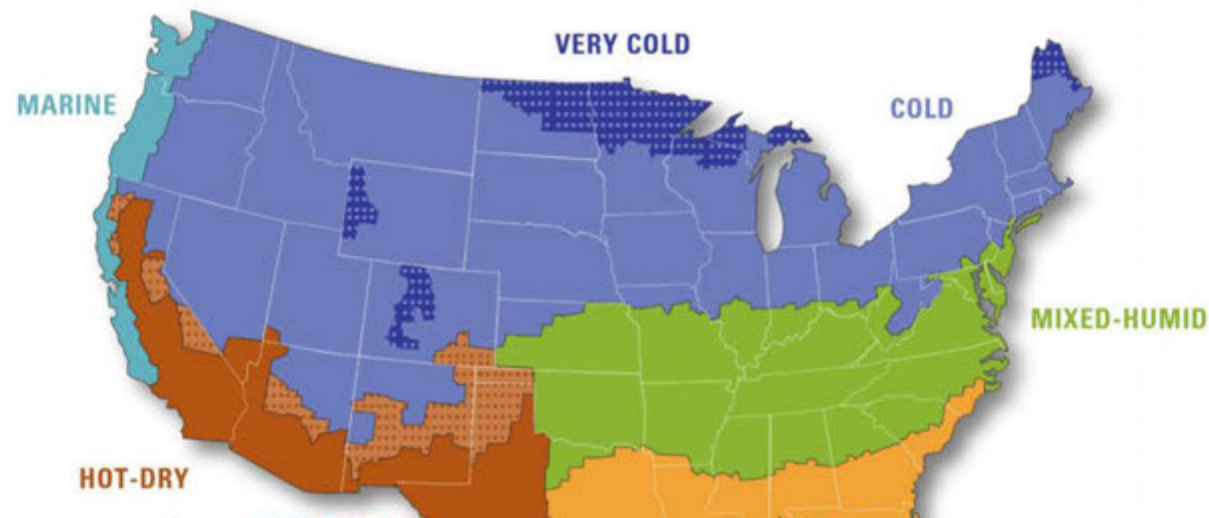


50,000 gsf



100,000 gsf

Select Your Climate Zone





Cost-Effective Upgrade Data

Below are the costs and savings for the chosen building size and climate zone. Click on a measure name for more information.

NOTE: The Cost-Effective Upgrades Tool is intended to guide conversations with building tenants, owners, and engineers. Costs and savings will vary and this list is not exhaustive. Please use the resources in the Sustainable Facilities Tool for additional measures and guidance on implementation.

[Return to Selections](#)[FAQ](#)[Where does this data come from?](#)

50,000 gsf



Hot - Dry

Relevant Data



Rows per page

20



Measure	Simple Payback ↑ (years)	Approximate Capital Cost (\$)	Annual Energy Savings (kBtu/sf)	Annual Energy Savings (kBtu/yr)	Annual Cost Savings (\$/sf)	Annual Cost Savings (\$/yr)
Shut down heating plant when there is no heating load	0-1	\$500	3.2	160,000	\$0.06	\$3,200
Implement a retro-commissioning (RCx) package	1-2	\$15,300	21.5	1,070,000	\$0.30	\$15,000
Widen zone temperature deadband and add conference room standby control (DDC zone controls)	1-2	\$9,300	7.0	350,000	\$0.13	\$6,700

Shut down heating plant when there is no heating load



What is this measure?

Facilities often run their heating plants throughout the year, even on warm days. This is often done to satisfy year-round reheat loads that are inherent in multi-zone VAV systems commonly used in large office building. Summertime reheat loads can occur in zones that require ventilation yet have relatively low cooling requirements. Reheat is provided to prevent overcooling these zones, which are typically interior zones. In humid climates, reheat may also be required at the [air handler](#) level to reheat the air after dehumidification.

If the reheat load can be reduced, then there is less need for heating plant operation and energy can be saved. If the reheat load can be eliminated altogether, greater savings can be achieved by shutting off the entire heating plant ([boilers](#) and pumps) to reduce standby and distribution losses, and to reduce auxiliary equipment operation.

Special Considerations

- A common strategy for implementing this measure is to shut down the heating plant when the outside air temperature is above a certain value, e.g., 75°F. To be able to do this, though, reheat loads above this temperature must be eliminated or, at least, greatly reduced. Many [HVAC systems](#) in large commercial buildings operate with a certain amount of simultaneous heating and cooling, due to the nature of the systems. Minimizing this paves the way for shutting off the heating equipment.
- In addition to energy savings, this measure should result in increased equipment life due to less run hours for the heating plant.

Estimates for this measure come from the Department of Energy's [Advanced Energy Retrofit Guide](#).

Cost-I

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Annual Cost
savings (\$/yr)

\$3,200

\$15,000

\$6,700

12/2017

Submetering

Not sure what submeter is best for you? Use the Submetering Wizard to learn about submetering techniques and benefits by system. You can also mark which benefits you've already attained and print or export your customized list of benefits. Start by selecting the type of system you want to meter below.



Electrical Circuit

Electrical circuit submeters measure resource use of a single panel, or submeters can be placed at multiple points within a panel system, or at branches of a circuit to measure resource use of multiple circuits. Circuit submeters enable occupant energy-use behavioral awareness, improved tenant billing, enhanced space resource use, and optimized operations and maintenance programs.

[Learn More](#)

Electrical System

System-level electric submeters enable management to easily control systems such as lighting, heating and cooling, and control start and stop times from one central platform. System-level submetering enhances the O&M Staff's ability to analyze specific energy load performance at the system-level, benchmark and optimize building performance, and enables more refined project measurement and verification.

[Learn More](#)

Electrical - End Use Device

End-use submetering provides the finest data resolution for energy and resource use of a particular system or equipment type for more detailed analysis. An objective of end-use submetering is to monitor equipment performance of high energy users in order to identify technology inefficiencies and validate savings estimates. Chillers, boilers, cooling towers, pumps, and motors are examples of equipment that are submetered to capture more granular performance metrics. End-use submeters can provide informative feedback mechanisms and data that can influence occupant behavior and



Measurement and Evaluation

Data is accessible to building occupants in graphical form

Frequent data collection

Measure Resource Use

Measure source of power, amount, and quality

Occupancy Data

Align circuit data/ consumption by tenant in multi-tenant facility

Visibility of tenant consumption data

Visibility of tenant performance data

System and Space Monitoring

Enables space management

Fault or Anomaly Detection

Identification of where resource is consumed

Monitoring of Voltage

Remote meter reading

Fault or Anomaly Detection

[REMOVE FUNCTIONALITY](#) ✕

Security

Energy Security

- Reduce fossil fuel usage
- Reduce wide-scale blackouts

Data Security

- Improve Cybersecurity

Tenant/ Personnel Safety

- Reduce injuries, hazards

Environmental

Increase Occupant Comfort

- Improve air quality
- Better balance of temperature, humidity and CO2 levels

Improve Tenant Productivity

Decrease sick days

Behavioral

- Not Applicable

\$ Economic

Improved Asset Utilization

- Optimize building system operation
- Improve economic operation of plants
- Extended useful life of assets due to optimized utilization

Building and Regional Capital Savings

- Reduce onsite generation capacity investments
- Defer onsite generation capacity investments
- Defer building system investments
- Optimize use of capital for major maintenance and repairs
- Optimize use of capital for retrofits

Building and Regional O&M Savings



FEDSAT

Helping your agency comply with the Federal
Buildings Personnel Training Act of 2010

[LEARN MORE](#)

VIDEO
INTRODUCTION



(2min)

[LOGIN / REGISTER](#)

[ACCELERATE FM](#)

[CONTINUING EDUCATION](#)

The General Services Administration (GSA) Office of Government-wide Policy (OGP) developed Accelerate FM as a "cloud institute," a site to help federal facility managers keep track of progress and work toward fulfilling the FBPTA requirements.

[LEARN MORE >](#)



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<https://sftool.gov>

sftool@gsa.gov

Green Procurement Compilation

The Green Procurement Compilation (GPC) is a comprehensive green purchasing resource designed for federal contracting personnel and program managers.

What is the GPC?

- Identify green requirements for products
- Find out how to green service contracts
- Learn about the Federal Environmental Programs that make up the GPC
- Download previous green solicitation examples and sample contract language

www.sftool.gov/greenprocurement

Includes the supply, operations and maintenance, and disposal of electronic products, such as computers or imaging equipment.

BioPreferred

The U.S. Department of Agriculture (USDA) manages the BioPreferred program. BioPreferred includes both a preferential procurement program for Federal agencies and their contractors and a voluntary labeling program for the broad scale consumer. Under the Federal procurement preference program, USDA designates categories of biobased products (e.g., glass cleaners). Federal agencies and their contractors are then required to give preferential consideration to biobased products in the designated BioPreferred product categories when making purchases. As a part of the designation process, USDA establishes the minimum biobased content for the category. The technical, health, and environmental characteristics of these products are also considered.

Buying BioPreferred products? View [sample solicitation/contract language](#).

Visit Program Site: [BioPreferred](#)

Comprehensive Procurement Guidelines (CPG) Program

Under the Comprehensive Procurement Guideline (CPG) program, the U.S. Environmental Protection Agency (EPA) designates products that are or can be made with recovered materials, and recommends practices for buying these products. Once a product is designated, procuring federal agencies are required to purchase it with the highest recovered material content level practicable. Buying recycled content products helps to ensure that the materials collected in home and office recycling programs will be used again in the manufacturing of new products.

Buying CPG products? View [sample solicitation/contract language](#).

Visit Program Site: [CPG](#)

Electronic Product Environmental Assessment Tool (EPEAT)

EPEAT® is a comprehensive environmental rating system that makes it easy for purchasers to select environmentally preferable electronic products, and, in doing so, reward manufacturers for their environmental design efforts and create environmental benefits. Under the EPEAT system, products are measured against both required and optional criteria that cover the full life cycle of electronic products. A product must meet all of the required criteria in its category to be added to the registry. It is then rated Bronze, Silver or Gold depending on how many of the optional criteria it meets. EPEAT is staffed and managed by the Green Electronics Council (GEC), a program of the International Sustainable Development Foundation (ISDF). Federal agencies must ensure that they meet at least 95 percent of their annual acquisition requirement for electronic products with



Search the GPC for green products and services...

Search

What's New

February 2017

Now on the GPC: EPA's FY17
Recommendations

[Learn More](#)

Green Procurement Compilation

The Green Procurement Compilation (GPC) is a comprehensive green purchasing resource designed for federal contracting personnel and program managers.

[More](#)

Video Introduction

o o o o

Find out about
Environmental Programs



Download GPC Data

CSV

Text

Workspaces

Find product requirements

Find services requirements and optional green practices

Federal

of Defense

DOE Priority Products

GS

Products

Appliances

Commercial and residential appliances, such as clothes washers, ovens, and refrigerators. Products in this category may also apply to the acquisition of janitorial, laundry, construction, and cafeteria...

[21 Products](#)

Biomedical Equipment and Supplies

Equipment and supplies that assist with activities and applications of clinical medicine.

[17 Products](#)

Services

Cafeteria & Food Services

Includes the preparation and offering of food and beverage items, waste management, and the ongoing management of the cafeteria space.

Electronic Equipment Leasing

Includes the supply, operations and maintenance, and disposal of electronic products, such as computers or imaging equipment.

Begin live demo of the tool.

Questions?

SFTool: sftool.gov

GPC: sftool.gov/greenprocurement

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