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

CHANGING HOW WE THINK ABOUT OUR RESOURCES FOR A BETTER TOMORROW

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 Guillemin – 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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CHANGING HOW WE THINK ABOUT OUR RESOURCES FOR A BETTER TOMORROW

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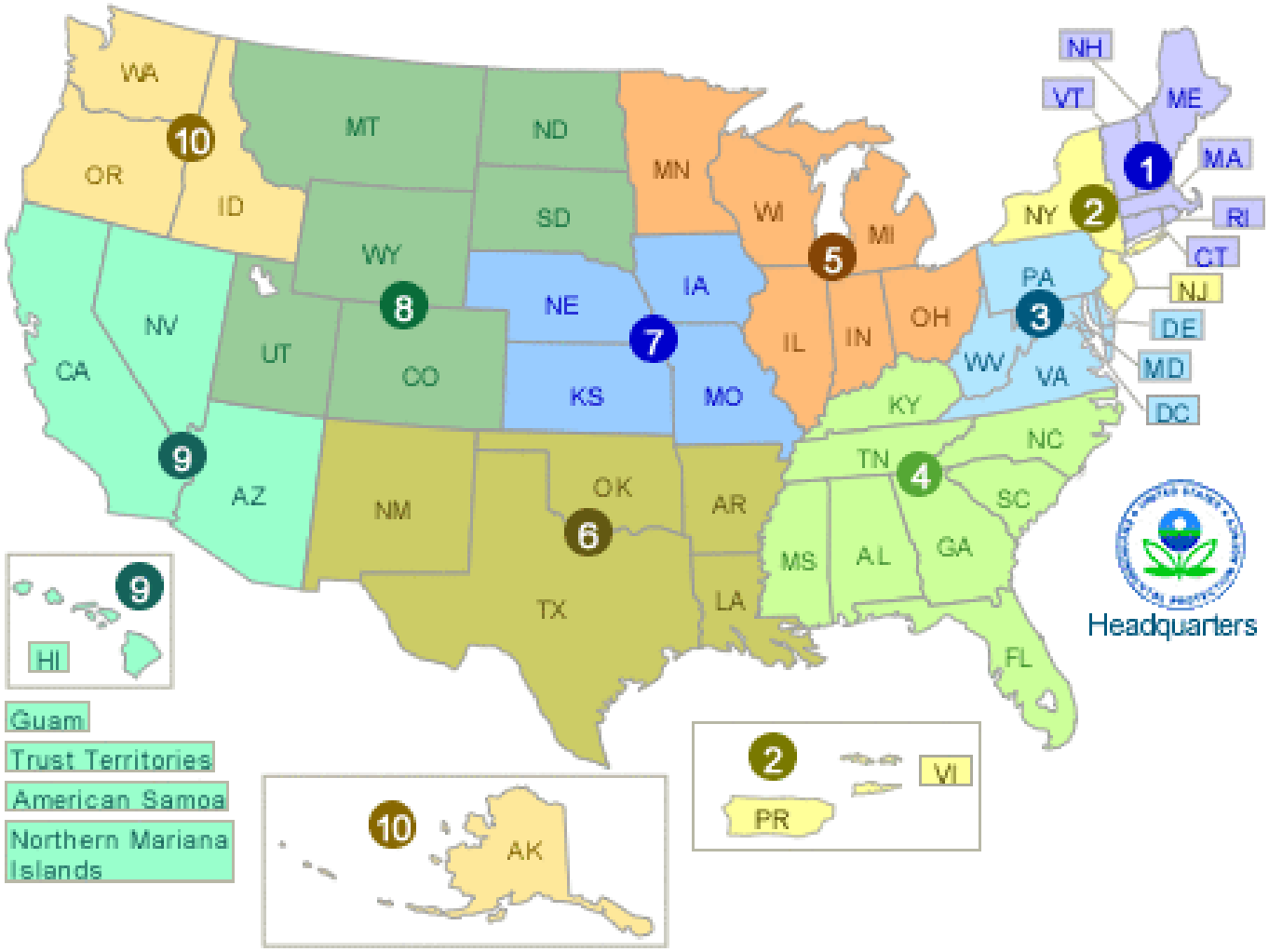


Rethink

CHANGING HOW WE THINK ABOUT OUR RESOURCES FOR A BETTER TOMORROW

EPA United States Environmental Protection Agency

www.epa.gov/smm

www.epa.gov/fgc

Rethink

CHANGING HOW WE THINK ABOUT OUR RESOURCES FOR A BETTER TOMORROW

Sustainable Facilities Tool

Make Effective Decisions

Presented by:

Michael Bloom

January 17, 2018

Log On

LEARN PLAN EXPLORE PROCURE ASSESS SHARE

Sustainable Facilities Tool

Make Effective Decisions

Search SFTool

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.

12/2017

Facility Topics

ENERGY

WATER

HEALTH

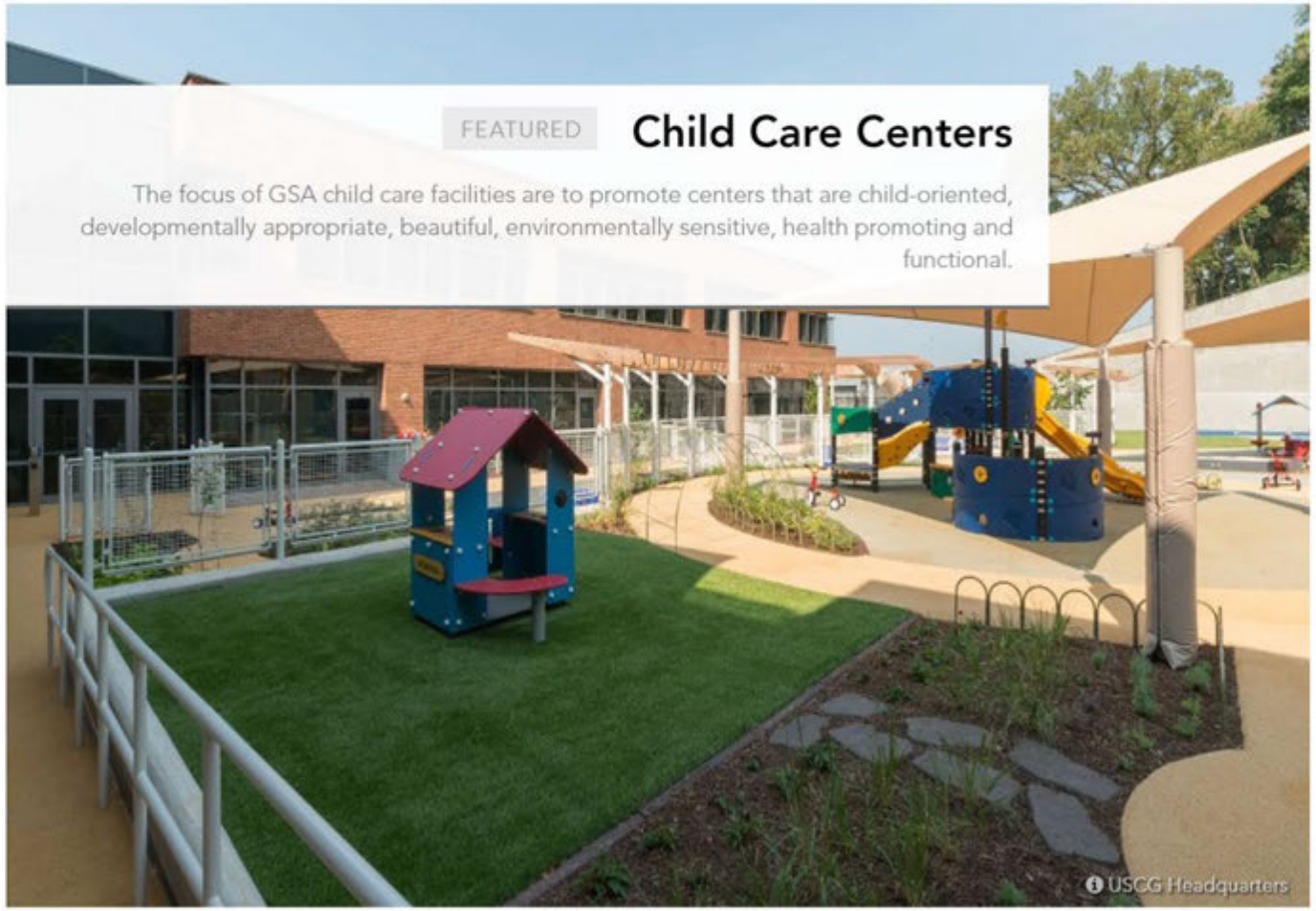
OTHER TOPICS

FEDERAL REQUIREMENTS

AGENCY PRACTICES

FEATURED

The first step to a 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 Officals Only

Federal Green Building (FedGB) Federal Officals 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

FEDSAT

Federal Facilities Skills Assessment Tool

Guiding Principles

Submetering

SFTool Product Search

SFTool Product Search

Your link to simpler environmentally responsible purchasing

Search Brand Name Products

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.

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**

Products Help Sign Up Log In

Search products by name, brand, category

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

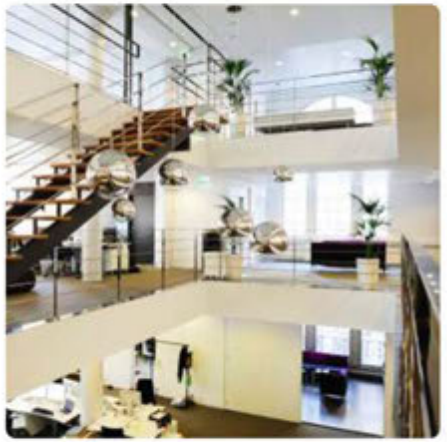
- BIFMA level (3,986)
- DLC Qualified (210,087)

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

SFTool Product Search Help

Welcome
Login Sign up

Home | Solutions

How can we help you today?

Enter your search term here... SEARCH

Login or Signup to submit a new ticket

Solution home / SFTool Help

Summary and FAQ

Summary
GSA 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

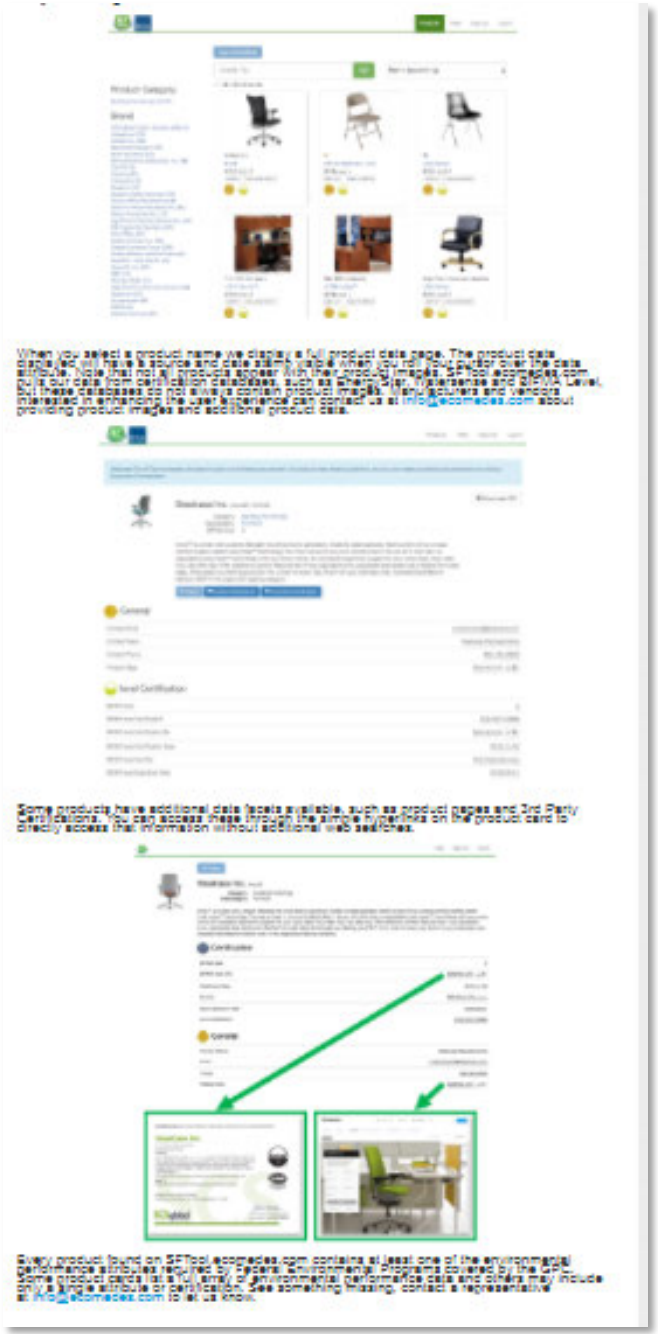
Product Search
We provide a powerful set of search capabilities. With 150+ product categories/subcategories, 5,600+ brands and 300,000+ products, we provide you several...
Sun, 2 Oct, 2016 at 10:49 PM

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 P

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



View Comparison

Search products by name, brand, category

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

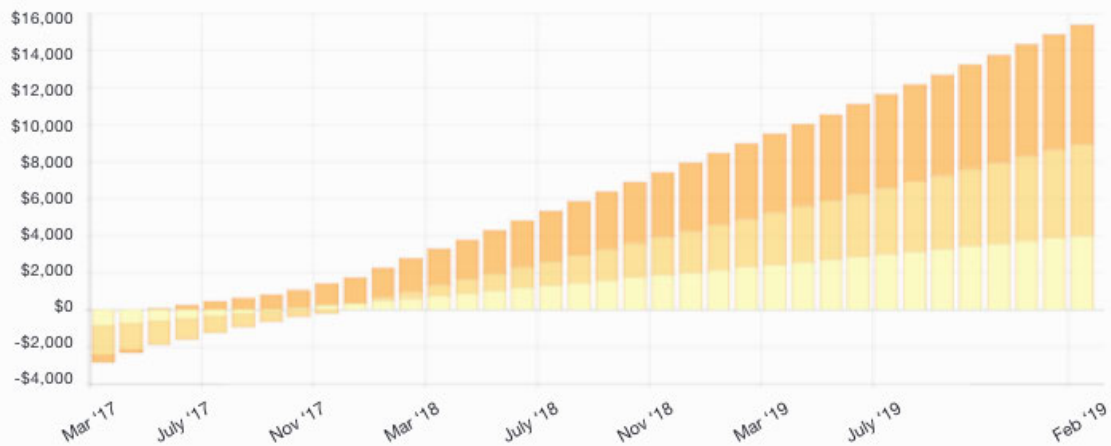
Paoli, Inc.
Sonora
Category Building Furnishings
Subcategory Furniture

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

COMPARE DETAILS | **IMPACT CALCULATOR**

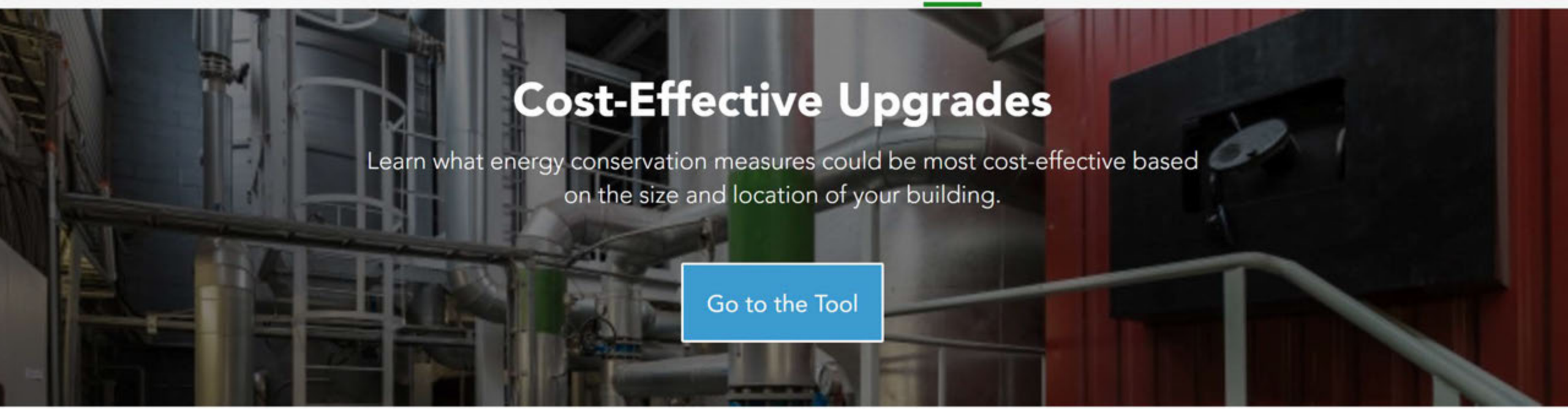
(3) PRODUCTS	× REMOVE	× REMOVE	× REMOVE
	Sylvania 2D4 sylv_oscarra	**Phillips 034L** phil_34L7	**EcoSmart 2b** eco_smart
UNIT QUANTITY	100 units	100 units	100 units
UNIT PRICE	$7.00 ea	$13.99 ea	$20.00 ea
TOTAL	$700.00	$1,390.00	$200.00

ENERGY CALCULATOR



SAVINGS SUMMARY

Monthly kWh Saved:	3,308 kWh	Monthly cash saved:	$496
Yearly kwh saved:	39,697kWh	Yearly cash saved:	$5,955
Total kWh saved:	119,092 kWh	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

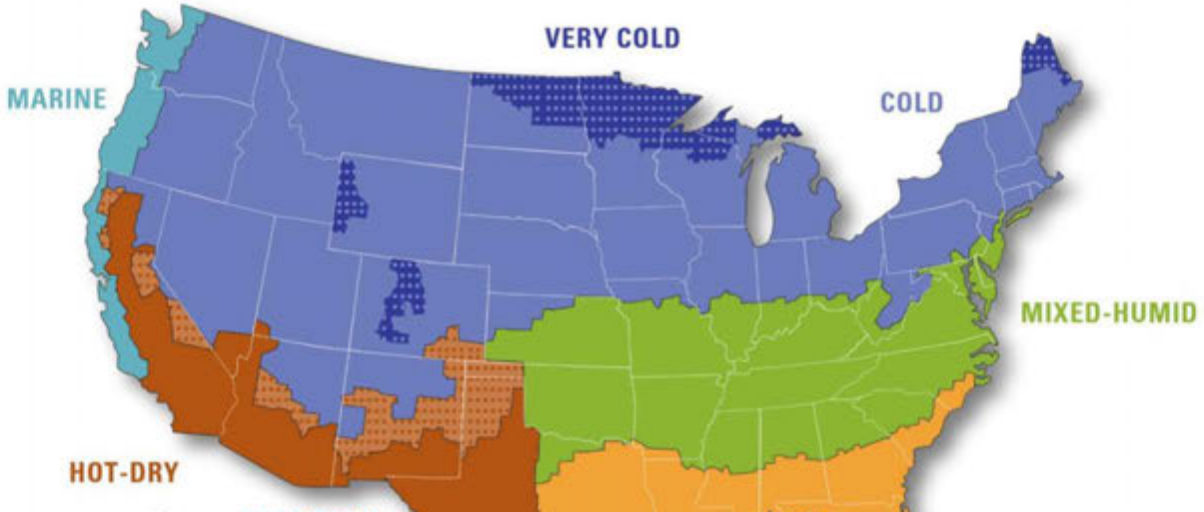
10,000 gsf

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.

50,000 gsf

Hot - Dry

Return to Selections | FAQ

Where does this data come from?

Relevant Data

Type here to filter by keyword

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.

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

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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TOOL
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

Log On

Green Procurement Compilation

PLAN EXPLORE PROCURE ASSESS SHARE

Search for a product

Search the GPC for green products and services...

Search

What's New

February 2017

Now on the GPC: EPA's FY17 Recommendations

Learn More

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Learn More

Video Introduction

Learn about the environmental programs

Find out about Environmental Programs

Download GPC Data

Excel CSV Text

Federal | Department of Defense | DOE Priority Products | GSA Public Buildings Service | Workspaces

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 cafeter...

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.

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

Log On

Green Procurement Compilation

LEARN PLAN EXPLORE PROCURE ASSESS SHARE

Search the GPC for green products and services... Search

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

Find product requirements

Find services requirements and optional green practices

What's New

February 2017

Now on the GPC: EPA's FY17 Recommendations

Learn More

Find out about Environmental Programs

d GPC Data

CSV Text

Federal ... of Defense DOE Priority Products G... Workspaces

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Begin live demo of the tool.

Questions?

SFTool: sftool.gov

GPC: sftool.gov/greenprocurement

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