



U.S. EPA's ENERGY STAR®

Using EPA's Portfolio Manager Tool to Measure and Track Energy Use - Ohio State Agencies and Ohio Executive Order 2007- 02S



June 4, 2007

Welcome to this ENERGY STAR Web Training



- To help improve audio quality for everyone, please mute your phone when you are not speaking. Press *STAR* 6 to mute. Press *STAR* 6 again to unmute.
- **Please do not put the call on hold!** If you need to leave, please hang up and join us again later.

*Be a Leader –
Change Our Environment for the Better*



U.S. EPA's ENERGY STAR® Overview

The U.S. Environmental Protection Agency (EPA) can help you create a successful energy management program, reduce operating costs, and demonstrate environmental leadership.

What is ENERGY STAR?



- A government-backed, voluntary program that helps businesses and individuals protect the environment through superior energy performance by providing energy efficient solutions for homes, businesses, and institutions.
- The national symbol for environmental protection through energy efficiency, recognized by more than 65% of all U.S. households.
- In 2006, Americans with the help of ENERGY STAR, prevented 37 million metric tons of greenhouse gas emissions and saved about \$14 billion on their utility bills.

Potential Impact



- Our governments, schools, and businesses spend billions annually on energy. **Typically, about 1/3 of this money is paid to utility companies unnecessarily due to energy inefficiency.**
- Instead, this money could be invested in energy efficiency which can improve the lighting, acoustics, thermal comfort, and indoor air quality creating a better working and learning environment.

Technology ≠ Performance

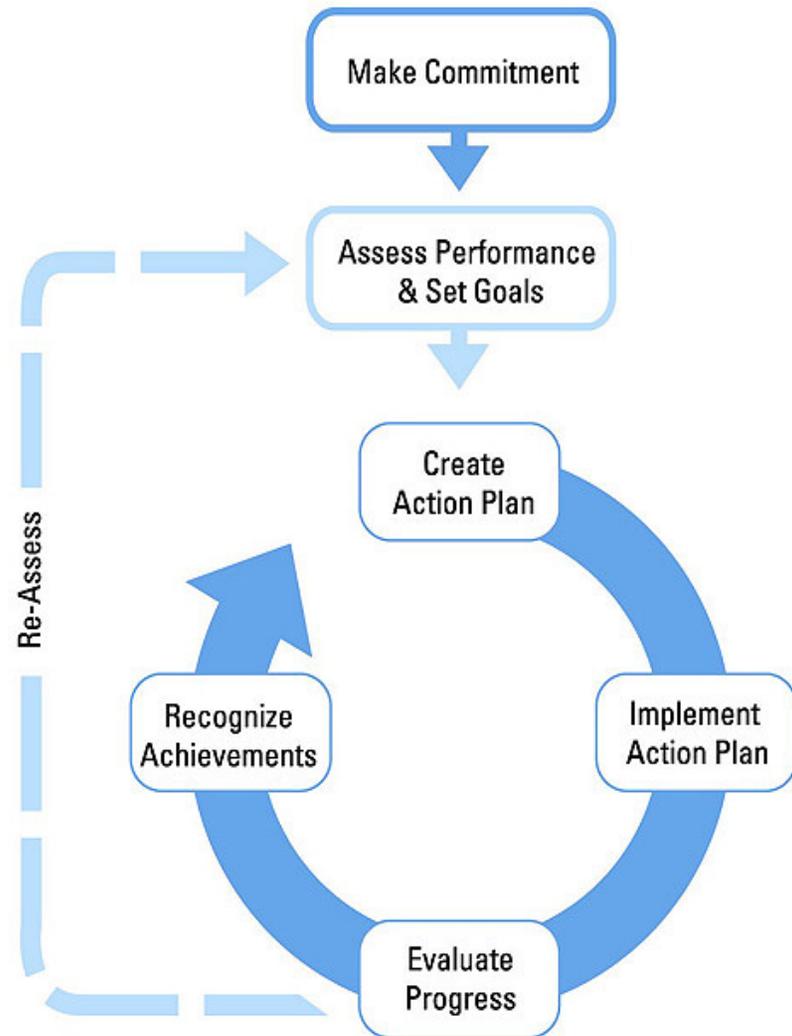


- 60% of building fan systems oversized on average by 60% (EPA fan study)
- Chillers oversized 50% to 200% (Lawrence Berkeley National Laboratory)
- Improper installation and poor maintenance

Superior Energy Management Approach



Based on the successful practices of ENERGY STAR partners, EPA has identified the key components for a successful energy management program.



Comprehensive Framework



- **Demonstrate commitment**
 - Adopt ENERGY STAR: a tested methodology compatible with clean energy and green building goals
 - Become an ENERGY STAR Partner
- **Use proven measurement tools: Portfolio Manager**
 - Set baseline and goals for existing buildings
 - Measure performance and progress
- **Educate staff, peers, community**
 - Guidelines for Energy Management and other tools
 - Compare results
- **Provide motivation and recognition**
 - Third party validation
 - Make performance part of culture

EPA's Portfolio Manager Tool



- **Normalize building energy consumption**
 - Weather (using the zip code)
 - Whole building energy intensity (kbtu/sf/yr) (At least 16 consecutive months for each source to be able to set a baseline)
- **Benchmark for comparison**
 - Measure and track ANY facility or campus
 - 1-100 rating scale for select building types
- **Recognition for Individual Building**
 - Top 25% can qualify for the ENERGY STAR
- **Earn LEED-EB points**
 - Required score is 60

Ratable Space Types



Offices



Hospitals



K-12 Schools



Supermarkets



Hotels



Med. Office Bldgs.



Others include: Warehouse, Residence Halls, Courthouses, Financial Centers

Track All Buildings' Energy Use



- **Any building type (Other non-ratable space types)**
 - Weather normalized energy use intensity (kbtu/sf/yr) for any building
- **Any campus configuration**
 - Central office loops
 - Multi-facility complexes
 - Universities
- **Any combination of meters**
 - One building one meter
 - One building many meters
 - Many buildings one meter
 - Many buildings many meters

Ohio Account Setup



- The Cadmus Group, an EPA subcontractor, has created a master Portfolio Manager account for Ohio and sub-accounts for each agency. Among the 32 agencies, 26 have a single account while six agencies (DOT, DRC, DYS, DMH, DMR, DNR) will have multiple accounts. Multiple account agencies will have a master account and sub-accounts for each district or institution.

Logging Into Your Account



- **Logging into your account.** To log into the Portfolio Manager system, go to:
<http://www.energystar.gov/benchmark>
- Your username is "OhioGov" followed by your agency's 3-character agency abbreviation (e.g., "OhioGovDAS" for Administrative Services) and the temporary password has been set to "changeme". Agencies with multiple accounts will have additional characters after the agency code for their sub-accounts.

Tasks To Complete.



- Each agency is responsible for confirming the information that has been set up in their account(s). Information to confirm includes buildings, area in square feet, number of occupants, hours of operation, etc.
- Each agency is responsible for matching their energy bills, or meter numbers, to each of their buildings, and entering historical consumption data into Portfolio Manager.
- Enter energy data for each billing period beginning with the billing period that includes July 1, 2005 to the present, to create a consistent baseline.
- Please note that your billing records may indicate multiple energy bills (gas, electric, water) for a single building, or multiple buildings consolidated onto a single energy bill.

Sources of Energy Consumption Data



- One way to collect energy consumption data is to simply gather paper copies of the utility bills for that period.
- If your agency participates in the DAS Natural Gas Program, you may use the data from the program subcontractor's web site at <https://www.utilityinvoice.com/>.
- Other utility data or summaries of utility bills may be provided upon request from your local utilities. Please contact the customer service representative of your local utilities at the phone number listed on your utility bills.
- Please note that PUCO rules require the utility to provide at least one year of consumption data and two years of payment data upon request of the consumer. If you have difficulty obtaining the billing history, please contact the Help Desk listed below for assistance.



Let's go live with Portfolio Manager

www.energystar.gov/benchmark

Portfolio Manager




PORTFOLIO MANAGER
 ACCOUNT INFORMATION
 CONTACTS
 CONTACT US
 HELP
 LOGOUT

[Home](#) > **My Portfolio**

Welcome: Michael Mungal

Summarized below are the facilities in your account. Groups and Views are provided below to help you customize the way in which you view your Portfolio. To improve system performance, users are strongly encouraged to create multiple Groups to help manage large Portfolios of facilities. **Select a facility to view or edit more detailed information about it.**

[Add Facility](#)

[Download this View in Excel](#)

GROUP: All Facilities <small>Create Group View All</small>		VIEW: Status <small>Create View Edit View View All</small>					
Results 1 - 9 of 9		All # A B C D E F G H I J K L M N O P Q R S T U V W X Y Z					
Facility Name <input type="checkbox"/>	Total Floor Space (Sq. Ft.)	Actual Annual Energy Intensity (kBtu/Sq. Ft.)	Rating (1-100)	Energy Use Alerts	Period Ending	Full Year	Last Modified
Administration Office	12000	51.1	65	Data > 3 months old	11/30/2003	Yes	02/27/2004
Argus Junior High School	117868	38.8	94		01/31/2004	Yes	02/27/2004
Cold Mountain Middle School	99534	76.5	15		01/31/2004	Yes	02/27/2004
Margrave High School	351355	17	93		01/31/2004	Yes	02/27/2004
Muddy Pond Elementary School	51231	41.2	71		11/30/2003	Yes	02/27/2004
Nobby Knee School	47221	30.9	77		01/31/2004	Yes	03/02/2004
Palacio de la Luna High School	299973	46.8	51		12/31/2003	Yes	02/27/2004
Rider Elementary	44172	75.1	18		12/31/2003	Yes	03/02/2004
Ugly Ducking Migrational School	46142	72.5	36		01/31/2004	Yes	02/27/2004
Results 1 - 9 of 9		All # A B C D E F G H I J K L M N O P Q R S T U V W X Y Z					

My Portfolio

- Provides summary information for all buildings.
- Allows user to customize views and sort by column headings.

Portfolio Manager



Facility Summary: Administration Office

[How do I use this page?](#)

Building ID: 1026214

Level of Access: Building Data Administrator

General Information [Edit](#)

Address: 5555 North Little Street
Stormwater, KY 42002

Year Built: 1953

Facility Performance [Set Energy Performance Baseline and Targets](#)

Select View: [Create View](#) | [Edit View](#)

12 Months Ending	Total Floor Space (Sq. Ft.)	Actual Annual Energy Intensity (kBtu/Sq. Ft.)	Rating (1-100)	Energy Use Alerts	Period Ending	Full Year	Last Modified
November 2003	12,000	51.1	65	Data > 3 months old	11/30/2003	Yes	02/27/2004
October 2003	12,000	46.8	65	Data > 3 months old	11/30/2003	Yes	02/27/2004

REFRESH VIEW

Space Use [Add Space](#)

Space Name	Space Type	Floor Area (Sq. Ft.)	% Floor Area	Alerts	
Sample Space Name	Office (General)	12,000.00	100		Delete Space
Total		12,000.00	100 %		

Due to rounding, the % Floor Area Total may not always equal 100%.

Energy Meters [Add Meter](#)

Meter Name	Energy Type	Space(s)	Last Meter Entry (End Date)	Alerts	
Sample Meter	Electricity (kWh (thousand Watt-hours))	Sample Space Name	11/30/2003	Data > 3 months old. more	Delete Meter

General Facility Administration

[Track](#) Energy Performance Improvements
[Delete](#) this Facility from Portfolio Manager
[Contact](#) us

Sharing Data

[Add](#) user to share this Facility
[Modify](#) list of users
[Transfer](#) Facility to another user
[View](#) entire Access List for this Facility

Statement of Energy Performance

[Generate](#) a Statement of Energy Performance
[View](#) Statement of Energy Performance

Applying for the ENERGY STAR Label

[Apply](#) for the ENERGY STAR Label
[View](#) status of ENERGY STAR Label Applications

Labeled Building Profiles

[Create](#) a New Building Profile
[Edit](#) Current Building Profile

Facility Summary

➤ This view is the same for all space types.

➤ Includes building address, summary space use, summary energy use, and baseline/target usage.

➤ Click on Space Name to see space use details.

Portfolio Manager



PORTFOLIO MANAGER



ACCOUNT INFORMATION



CONTACTS



CONTACT US



HELP



LOGOUT

[Home](#) > [My Portfolio](#) > [Administration Office](#) > [Edit Facility Space](#)

Edit Facility Space: Sample Space Name

Entered values are used when generating a **1-to-100 rating** of the facility's energy efficiency. Portfolio Manager provides default values for certain Space attributes. Using default values will not overwrite data that you have entered, however, while using the default values, your data will not be used in Space Use and Facility Performance calculations.

REQUIRED

*Space Name:

CANCEL

SAVE

Current Space Attribute Values [What is this?](#)

Space Attribute	Value	Use Default Value	Units	As of (MM/DD/YYYY)	
Gross Floor Area (required for benchmarking)	12000	N/A	Sq. Ft.	01/01/2001	Edit
Number of PCs (required for benchmarking)	32			01/01/2001	Edit
Occupants (required for benchmarking)	35			01/01/2001	Edit
Operating Hours/Week (required for benchmarking)	55		Hours	01/01/2001	Edit

Space Revision History

Space Attribute	Value	Use Default Value	Units	As of (MM/DD/YYYY)	Revised by	
No Revision History						

Portfolio Manager



PORTFOLIO MANAGER



ACCOUNT INFORMATION



CONTACTS



CONTACT US



HELP



LOGOUT

[Home](#) > [My Portfolio](#) > [Abbott Hall](#) > [Edit Facility Space](#)

Edit Facility Space: Rooms

Entered values are used when generating a **1-to-100 rating** of the facility's energy efficiency. Portfolio Manager provides default values for certain Space attributes. Using default values will not overwrite data that you have entered, however, while using the default values, your data will not be used in Space Use and Facility Performance calculations.

*** REQUIRED**

*Space Name:

CANCEL

SAVE

Current Space Attribute Values [What is this?](#)

Space Attribute	Value	Use Default Value	Units	As of (MM/DD/YYYY)	
What percent of this space is air-conditioned? (required for benchmarking)	100	Yes		01/01/2002	Edit
What percent of this space is heated? (required for benchmarking)	100	Yes		01/01/2002	Edit
Gross Floor Area (required for benchmarking)	10000	N/A	Sq. Ft.	01/01/2002	Edit
Number of Rooms (required for benchmarking)	100			01/01/2002	Edit
Does building have a computer lab?	Yes			01/01/2002	Edit
Does building have a dining hall where food is prepared and heated?	No			01/01/2002	Edit

Space Revision History

Space Attribute	Value	Use Default Value	Units	As of (MM/DD/YYYY)	Revised by
No Revision History					



Returning from the Web

What does the EUI (energy use intensity) mean?

How can you use this information?

Use the Rating to:



- Establish portfolio baseline, set goals, measure and track performance over time
- Verify gains from upgrade efforts
- Require specific rating gains from service providers in select building types such as office or warehouse

Automated Benchmarking



Automated benchmarking provides utilities and energy information service providers with a powerful platform to:

- Securely exchange building and utility data with the EPA ENERGY STAR program
- Leverage the ENERGY STAR rating within their own systems
- Reduce the burden on energy end users of benchmarking their energy performance

Other Portfolio Manager Features



- **Master account feature:** Allows organizations to track progress of campaign participants
- **Grouping capability:** Includes functionality to organize facilities into groups
- **Percent energy reduction:** Provides a metric to show a percent change in energy use over time
- **Water tracking:** Allows users to track water in Portfolio Manager
- **Multi Facility Meter Update:** provides the ability to easily update meter data for a large number of facilities, greatly increasing the efficiency for meter updates to large Portfolio Manager accounts, especially if updates are done on a monthly basis.
- **Automated benchmarking:** Allows users to securely exchange building and utility data with the EPA ENERGY STAR program and reduce the burden on energy end users of benchmarking their energy performance

Recognition Opportunities for State Facilities



- **Estimate Energy Use at Design**

- Target Finder
- Designed to Earn the ENERGY STAR



- **Verify energy use in operation**

- Portfolio Manager
- ENERGY STAR for buildings



Contact Information



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