



• August 15-18, 2010 • Dallas, Texas •
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ENERGY STAR Portfolio Manager and Federal Facilities

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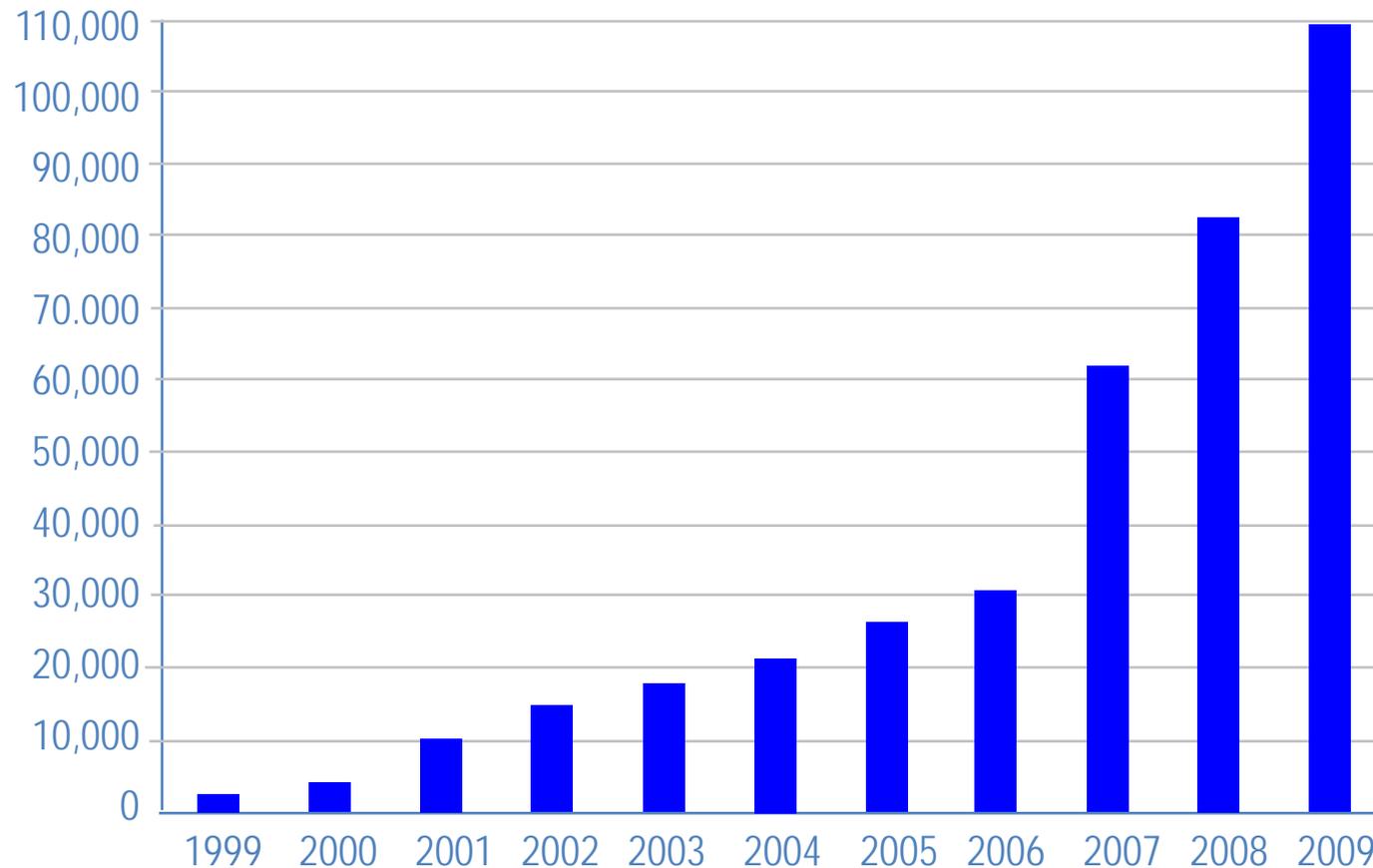
Agenda

- National Growth in Portfolio Manager Benchmarking Trends
- Overview of Portfolio Manager Functionality
- Portfolio Manager for EE Project Planning and Implementation

National Growth in Portfolio Manager Benchmarking Trends

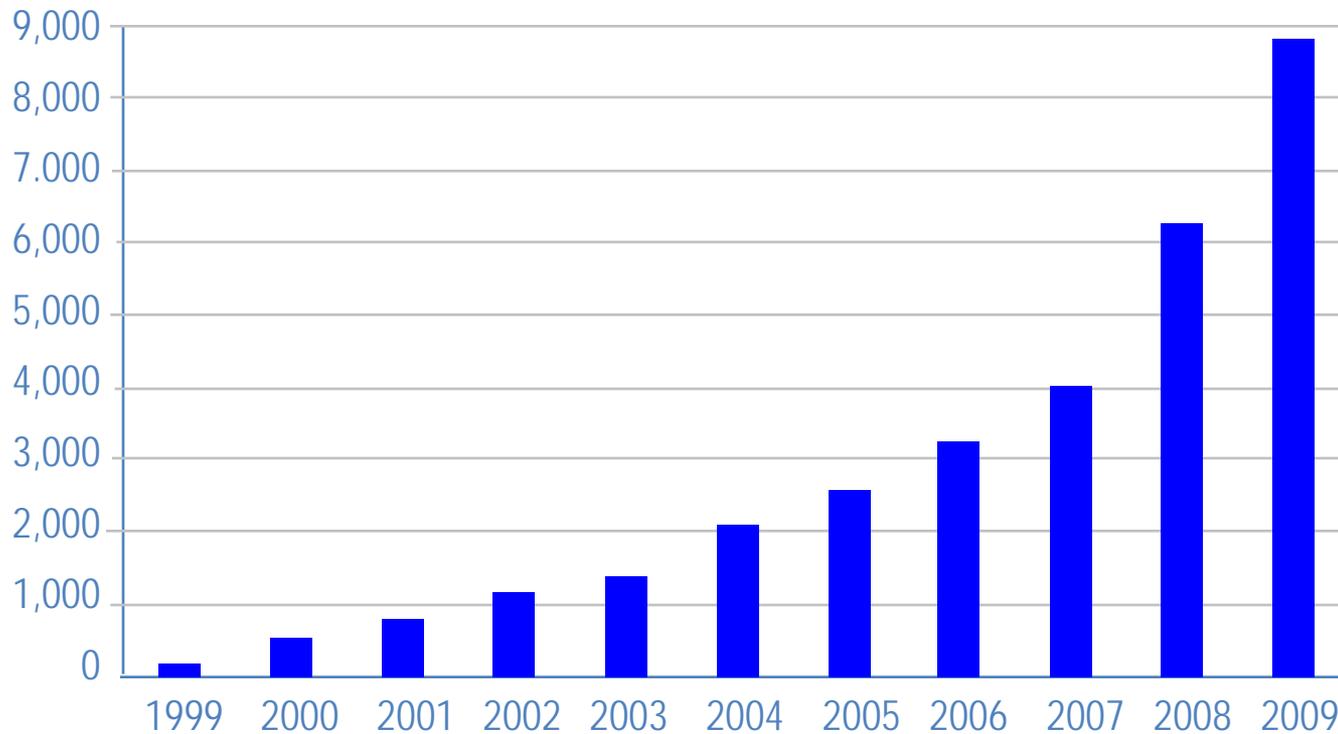
Benchmarking Activity in Portfolio Manager Continues to Increase

Commercial Buildings Rated- Cumulative



Benchmarking Activity in Portfolio Manager Continues to Increase

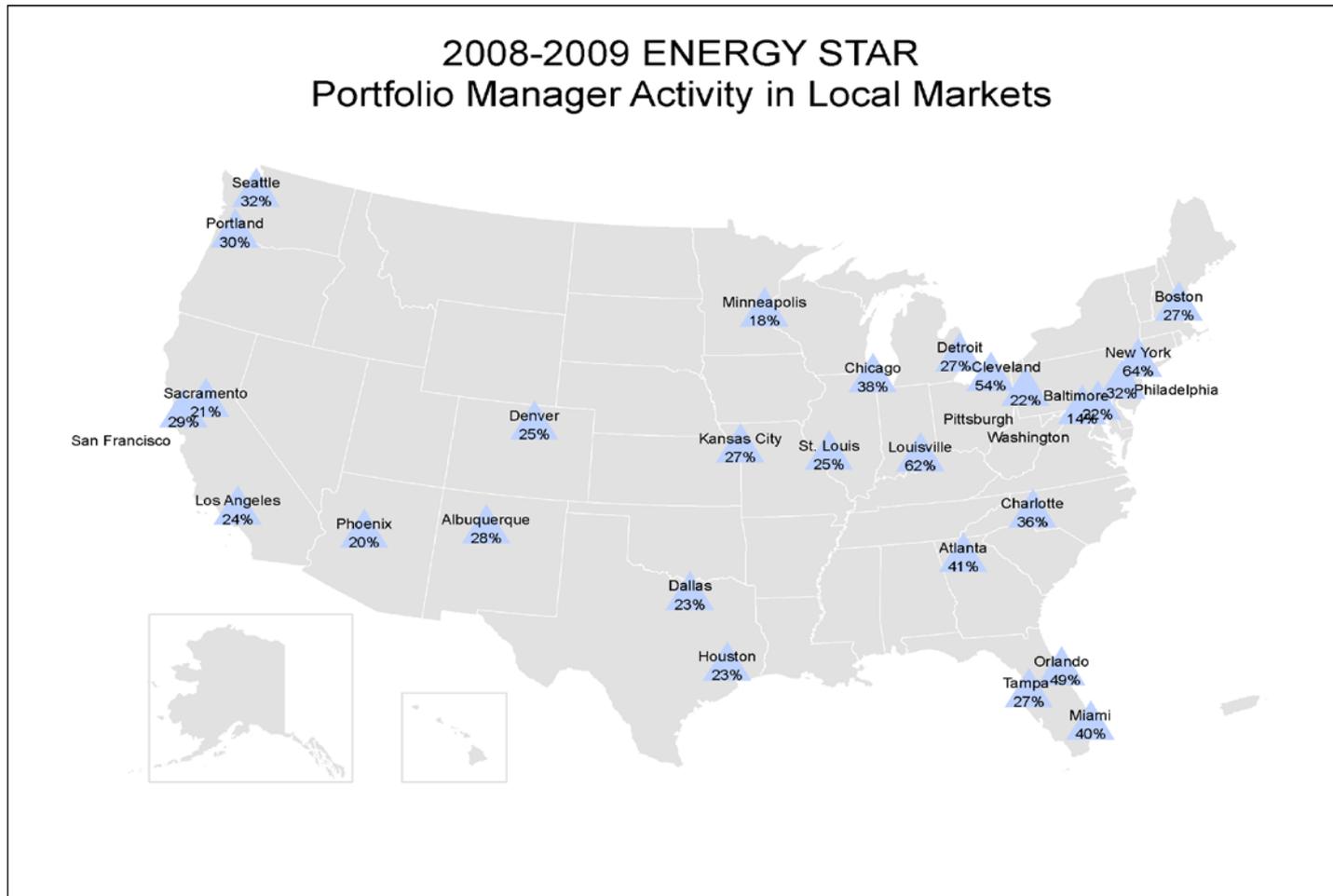
ENERGY STAR Labeled Buildings -Cumulative



Benchmarking Activity in Portfolio Manager Continues to Increase

- As of June 2010,
 - Over 140,000 buildings are benchmarked in Portfolio Manager
 - Over 10,000 buildings have qualified for the ENERGY STAR label, EPA's recognition for top energy performance

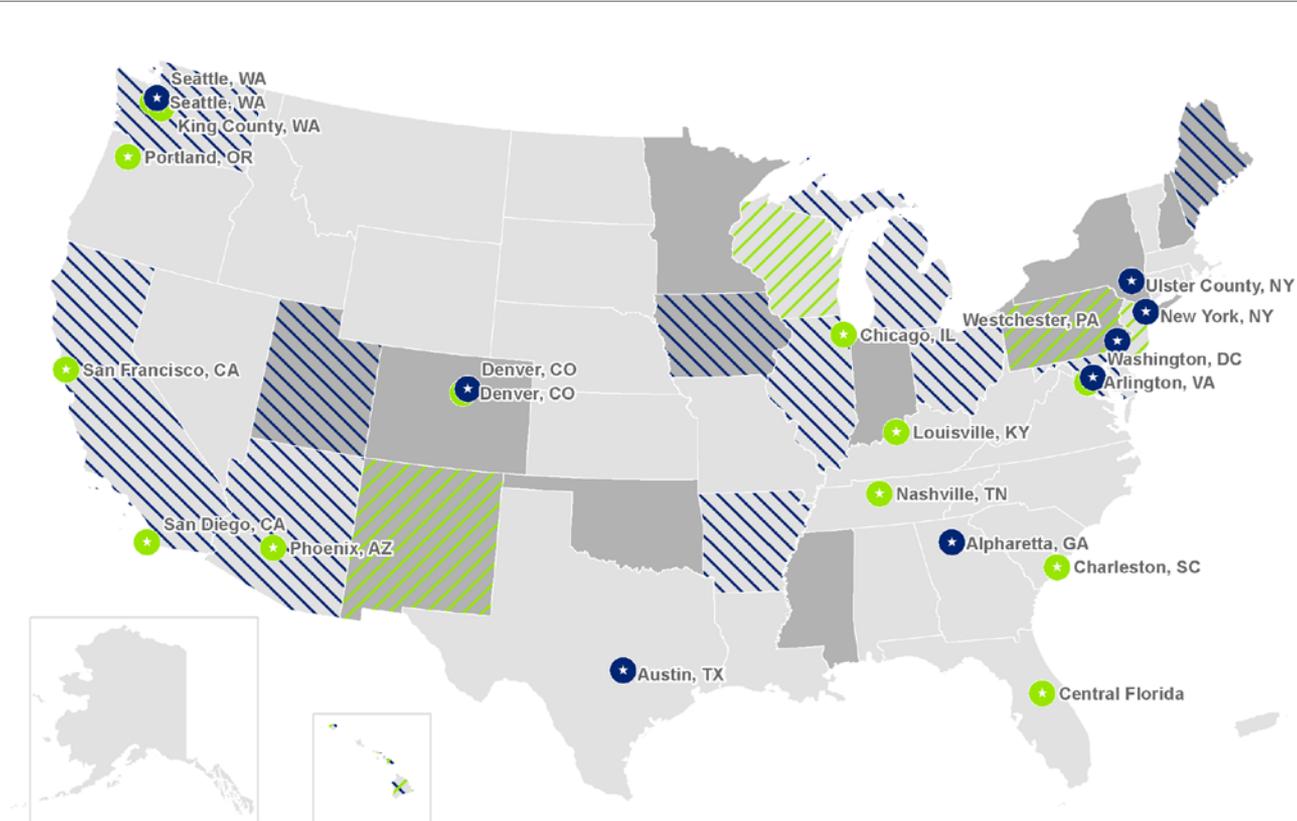
ENERGY STAR Portfolio Manager Activity by DMA: Percent Increase in Number of Buildings Benchmarked (Cumulative from 2008 to 2009)



State and Local Benchmarking Legislation Summary

Jurisdiction	Public Buildings	Private Buildings	Disclosure	Utility Data Requirement
California	√	√	Transactional	√
Washington	√	√	Transactional	√
Michigan	√			
Ohio	√			
Hawaii	√			
D.C.	√	√	Annual	
Austin, TX	√	√	Transactional	
Denver, CO	√			
West Chester, PA	√	√		
Seattle, WA	√	√	Transactional	√
City of New York	√	√	Annual	

State and Local Governments Leveraging Portfolio Manager



- ★ Local Benchmarking
- ★ Local Voluntary Program
- State ARRA-Funded Program
- State Benchmarking
- State Voluntary Program

Federal Agency Requirements

Through the Energy Independence and Security Act of 2007 (EISA 2007), Executive Order 13514, “Federal Leadership in Environmental, Energy and Economic Performance”, and Executive Order 13423, “Strengthening Federal Environmental, Energy, and Transportation Management,” Federal Agencies are required to do the following:

- Benchmark building energy use with ENERGY STAR Portfolio Manager,
- Reduce greenhouse gas emissions from energy used to run buildings,
- Reduce energy and water use,
- Assess sustainability of buildings,
- Lease ENERGY STAR buildings,
- Set design targets for energy efficiency of new buildings,
- Purchase ENERGY STAR products, and
- More.

ENERGY STAR tools and resources can help Federal Agencies meet these requirements!

Overview of Portfolio Manager Functionality – with Updates

Portfolio Manager – Assess and Track Performance in Existing Buildings

- Free online tool for existing buildings:
 - Assess whole building energy use for any building using weather-normalized energy use intensity (EUI)
 - Compare your energy use against your peers
 - Select building types receive an energy performance score (1-100 scale)
 - Track changes in energy use over time in single buildings, groups of buildings, or entire portfolios
 - Track CO₂ reductions and cost savings
 - Track water usage



<http://www.energystar.gov/benchmark>

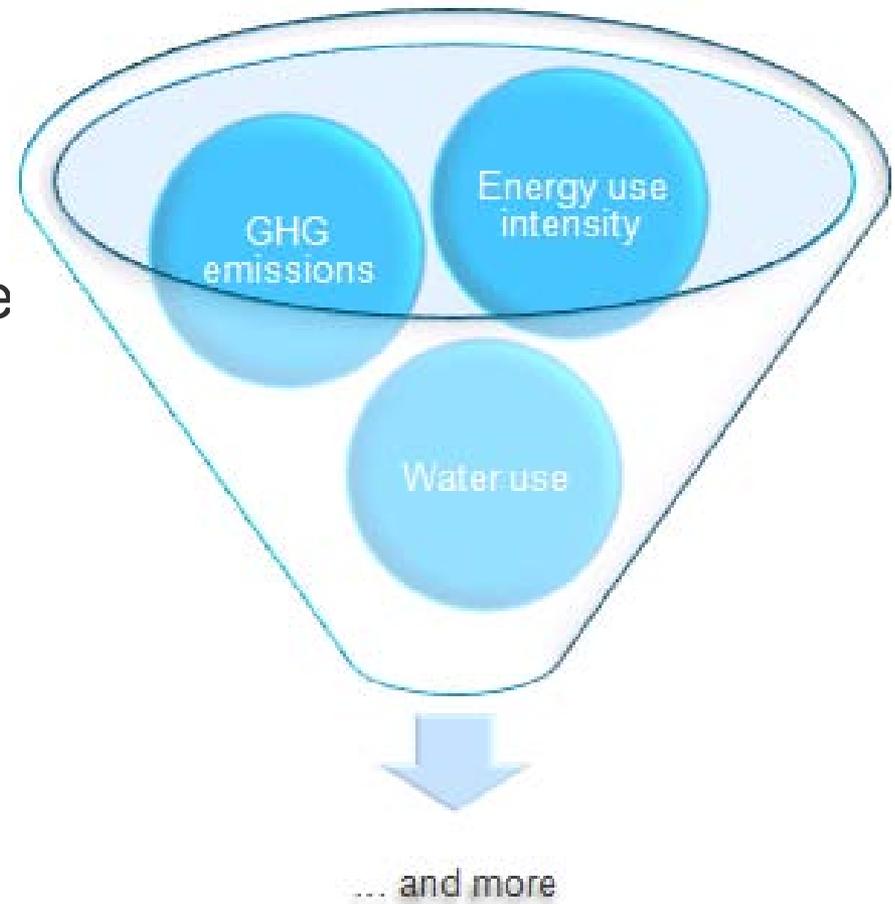
GovEnergy 2010

ENERGY STAR Portfolio Manager –What's New

- Custom reporting and graphing features - for your own buildings *and* external sharing
- Enhanced water use tracking (change from baseline per SF, %, total)
- 1-100 Score now available for data centers and houses of worship
- Track onsite wind and solar energy use
- Track Renewable Energy Certificates (RECs) at the building level and see emissions avoided

Valuable Performance Tracking for ALL Commercial Buildings

- Such as:
 - Police Stations
 - Fire Stations
 - Assisted Living Facilities
 - Convention Centers
 - Laboratories
 - Libraries
 - Malls
 - Movie Theatres
 - Restaurants
 - Stadiums and Arenas



ENERGY STAR Score Eligible Building Types



**Bank/Financial
Institutions**



Courthouses



Data Centers



Dormitories



Hospitals



Hotels



**Houses of
Worship**



K-12 Schools



Medical Offices



Office Buildings



Retail Stores



Supermarkets



Warehouses



**Wastewater
Treatment Plants**

ENERGY STAR Portfolio Manager – What Data Is Required?

- **Building Identifiers**

Name, street address

- **Space Type Data (depends on space type)**

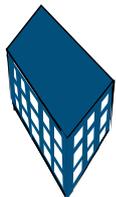
- Office example: Square footage, hours of operation, number of workers on main shift , # of PC's, percent of gross floor area that is air conditioned, heated

- **Energy Use**

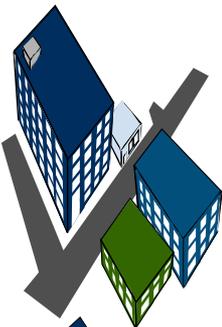
- Monthly energy use by meter for all fuel used on site – minimum 11 consecutive months of data required

Learn more about data requirements in the ENERGY STAR Data Collection Worksheet at [www.energystar.gov/ia/business/downloads/PM Data Collection Worksheet.doc](http://www.energystar.gov/ia/business/downloads/PM_Data_Collection_Worksheet.doc)

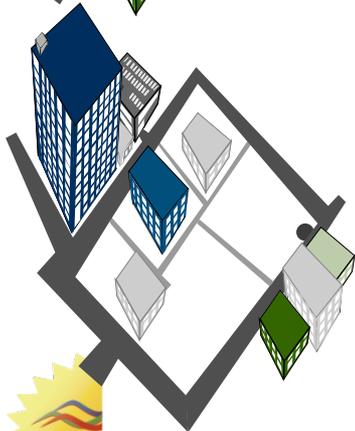
ENERGY STAR Portfolio Manager –How is Data Entered?



- **Single Building Manual Entry**
 - Enter building and energy consumption information into Portfolio Manager.



- **Bulk Data Upload**
 - Upload large sets of building data in Portfolio Manager using an Excel template.



- **Automated Benchmarking Services**
 - Use Service and Product Provider to have the rating automatically integrated into your energy information and bill handling system

Utility-based Automated Benchmarking

- Option 1: Provide utility data
- Option 2: Provide automated benchmarking services

Service Providers Offer Automated Benchmarking with PM

Advantage IQ

Angus Systems

ComEd

EduCon

ei3

Energard Technologies

Energy Print

Energy Watchdog

EnergyCAP, Inc.

EnergySolve

IBS, Inc.

Johnson Controls

LPB Energy Management

New Energy Technology

NISC

NorthWrite

Pacific Gas & Electric

Performance Systems Development

San Diego Gas & Electric

Siemens

Southern California Edison

Southern California Gas Company

Summit Energy

The E Group

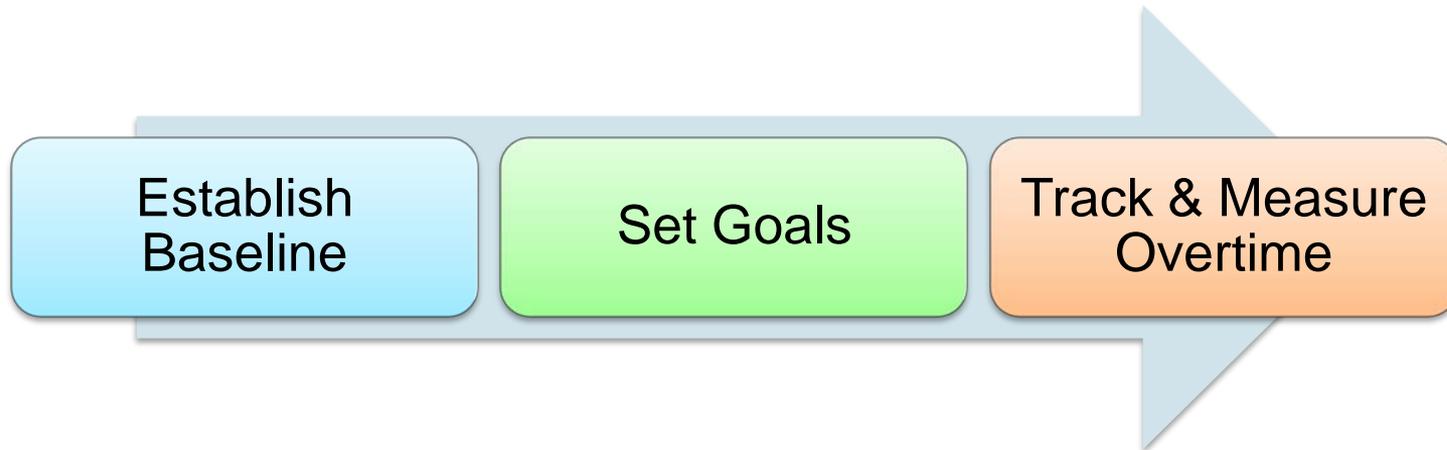
UtilityAccounts.com

More information at www.energystar.gov/abs

Portfolio Manager for EE Project Planning and Implementation

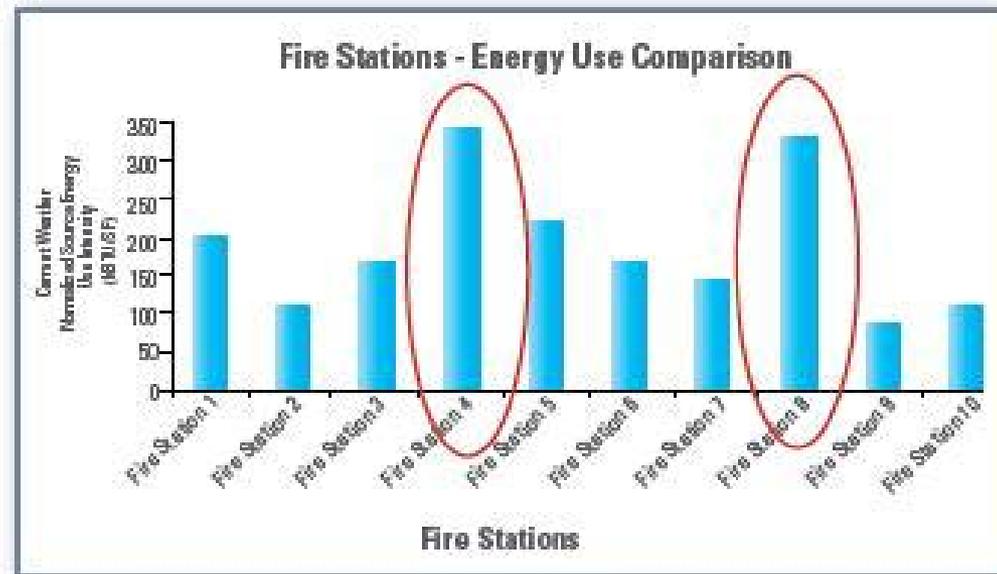
Assess Performance for Strategic Energy Management

- Growing need for consistent, *transparent*, and *accountable* energy and GHG savings tracking
- Benchmark for municipal building projects
- Incorporate benchmarking into EE programs for building owners in your community



1. Identify Best Opportunities for Energy Efficiency Improvements

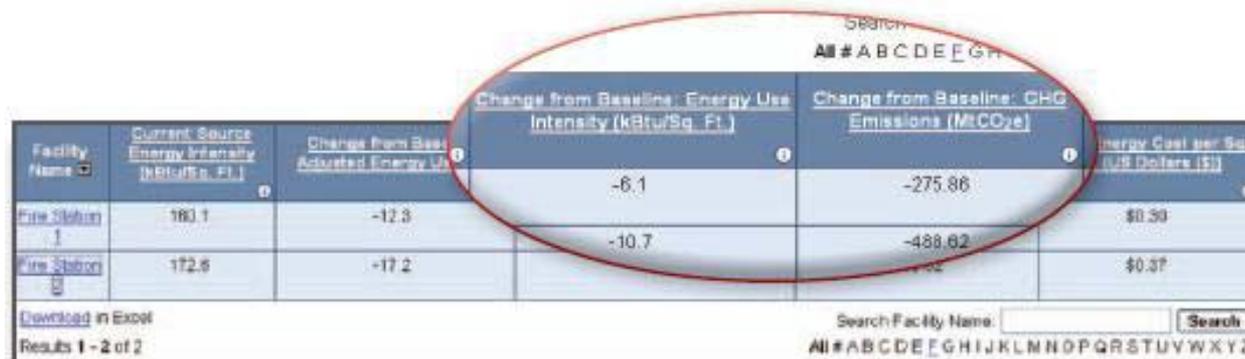
- Identify under-performing buildings to target for energy efficiency improvements.
- Establish baselines to set goals and measure progress



Prioritize efforts by identifying under-performing buildings.

2. Track Progress Over Time

- Set a baseline and monitor energy efficiency improvements over time
- View percent improvement in weather-normalized energy use intensity.
- Track reductions in greenhouse gas emissions.
- Monitor energy and water costs



Search
All # A B C D E F G H

Facility Name	Current Source Energy Intensity (kBtu/Sq. Ft.)	Change from Baseline Adjusted Energy Use	Change from Baseline: Energy Use Intensity (kBtu/Sq. Ft.)	Change from Baseline: GHG Emissions (MtCO ₂ e)	Energy Cost per Sq. (US Dollars (\$))
Fire Station 1	180.1	-12.3	-6.1	-275.86	\$0.50
Fire Station 2	172.6	-17.2	-10.7	-488.62	\$0.37

Download in Excel
Results 1 - 2 of 2

Search Facility Name: Search
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

View and compare energy performance and GHG metrics.

3. Documenting Savings Results

- Provide *transparency* and *accountability* to help demonstrate strategic use of capital improvement funding.
- Quickly and accurately demonstrate savings for an individual building or entire portfolio:
 - Energy use
 - GHG emissions
 - Water use
 - Energy costs

STATEMENT OF ENERGY PERFORMANCE
Fire Station 2

Building ID: 1142251
For 12-month Period Ending: December 31, 2009*
Date SEP becomes ineligible: N/A

CMB No. 2065-0347
Date SEP Generated: March 05, 2010

Facility: Fire Station 2
Facility Owner: N/A
Primary Contact for this Facility: N/A
100 Blank Street
Arlington, VA 22200

Year Built: 1990
Gross Floor Area (ft²): 300,000

Energy Performance Rating¹ (1-100): N/A

Site Energy Use Summary²
Electricity (kBtu): 15,000,000
Natural Gas (kBtu)³: 0
Total Energy (kBtu): 15,000,000

Energy Intensity⁴
Site (kBtu/ft²/yr): 52
Source (kBtu/ft²/yr): 173

Emissions (based on site energy use)
Greenhouse Gas Emissions (MTCO₂e/year): 2,352

Electric Distribution Utility
Virginia Electric & Power Co

National Average Comparison
National Average Site EUI: 75
National Average Source EUI: 107
% Difference from National Average Source EUI: 10%
Building Type: Fire Station/Police Station

Meets Industry Standards⁵ for Indoor Environmental Conditions:
Ventilation for Acceptable Indoor Air Quality: N/A
Acceptable Thermal Environmental Conditions: N/A
Adequate Illumination: N/A

Certifying Professional
N/A

Stamp of Certifying Professional
Based on the conditions observed at the time of my visit to this building, I certify that the information contained within this statement is accurate.

Notes:
1. Application for the ENERGY STAR label is submitted to EPA within 4 months after final design date. Award of the ENERGY STAR is not final until approval is received from EPA.
2. The EPA Energy Performance Rating is based on source energy. A rating of 75 is the minimum to be eligible for the ENERGY STAR.
3. Values represent energy consumption, not production.
4. Natural Gas values in units of volume (e.g., cubic feet) are converted to kBtu with adjustments made for conversion based on facility zip code.
5. Values represent energy efficiency, not absolute energy.
6. Based on meeting ASHRAE Standard 62.1 for ventilation for acceptable indoor air quality, ASHRAE Standard 55 for thermal comfort, and ASHRAE Lighting Handbook for lighting quality.

New Custom Reporting: Request and Receive Data from Other PM Users



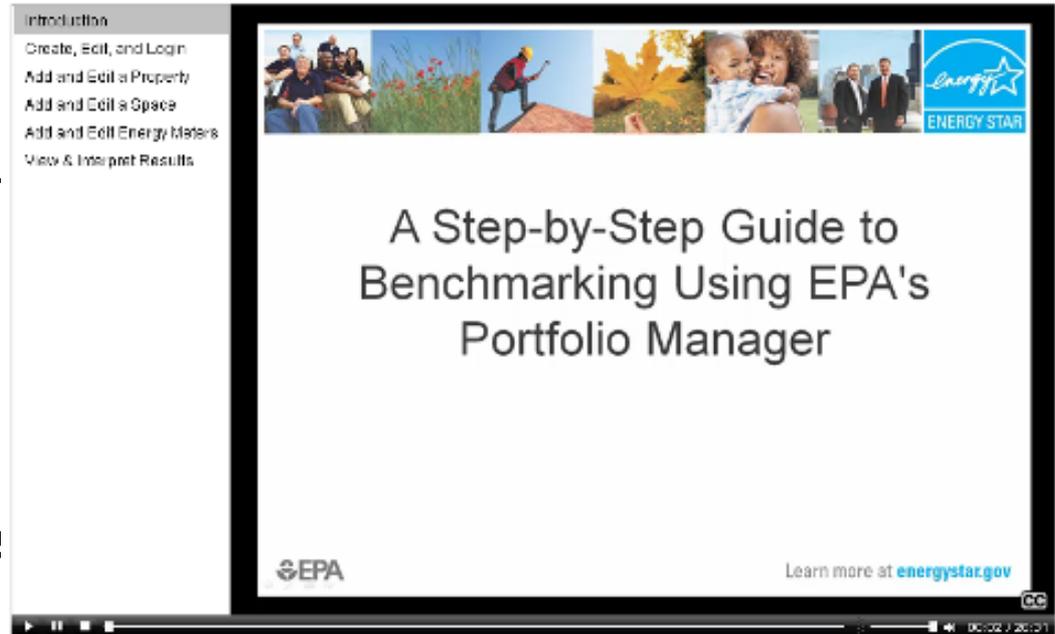
1. Choose data (performance metrics) needed for reporting
2. Add custom instructions
3. Distribute report via unique URL
4. Data from recipients is aggregated electronically

Enhanced User Support is Available

Benchmarking Starter Kit

- Animated Portfolio Manager training
- Data Collection Worksheet
- Step-by-step Quick Reference Guide

Cost-free live and recorded trainings



Available at www.energystar.gov/benchmark

For More Information

ENERGY STAR Buildings:

www.energystar.gov/buildings

Portfolio Manager:

www.energystar.gov/benchmark

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