



Portfolio Manager Overview

Benefits of Benchmarking with Portfolio Manager

What is Portfolio Manager?

- Free, web-based tool for benchmarking existing buildings
- Measure and track the energy use of all of your buildings – receive an energy use intensity (EUI)
 - Many buildings, including office buildings can receive energy performance scores on a 1-100 scale
- Track changes in energy and water use over time in single buildings, groups of buildings, or entire portfolios
- Facilitates applications for ENERGY STAR Certification and Leaders recognition

www.energystar.gov/benchmark

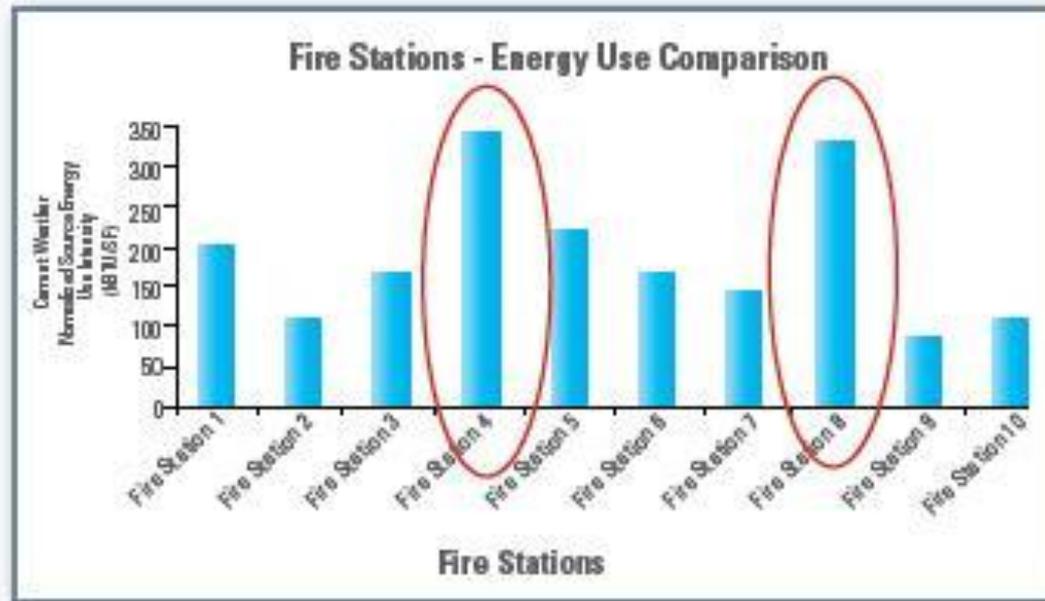


- Enable portfolio-wide, continuous energy management strategy and reductions
- Verify pre- and post-project energy use, GHG emissions, and energy costs
- Identify under-performing facilities
- Assess effectiveness of current operations, policies and practices
- Assist in planning: set goals, targets, and timelines
- Set investment priorities
- Be more responsive to on-going issues
- Identify billing errors



Identify Best Opportunities for Improvements

- Identify under-performing buildings to target for energy efficiency improvements.
- Conduct low cost “pre-audits” of building energy use



Prioritize efforts by identifying under-performing buildings.

Free simple analytical tool

Web-based, no cost, easily understood, 1-100 scale, weather normalized EUI

Industry standard

More than 200,000 commercial and institutional buildings benchmarked in Portfolio Manager

Over 12,000 buildings certified

Comprehensive development process

Extensive research and data base

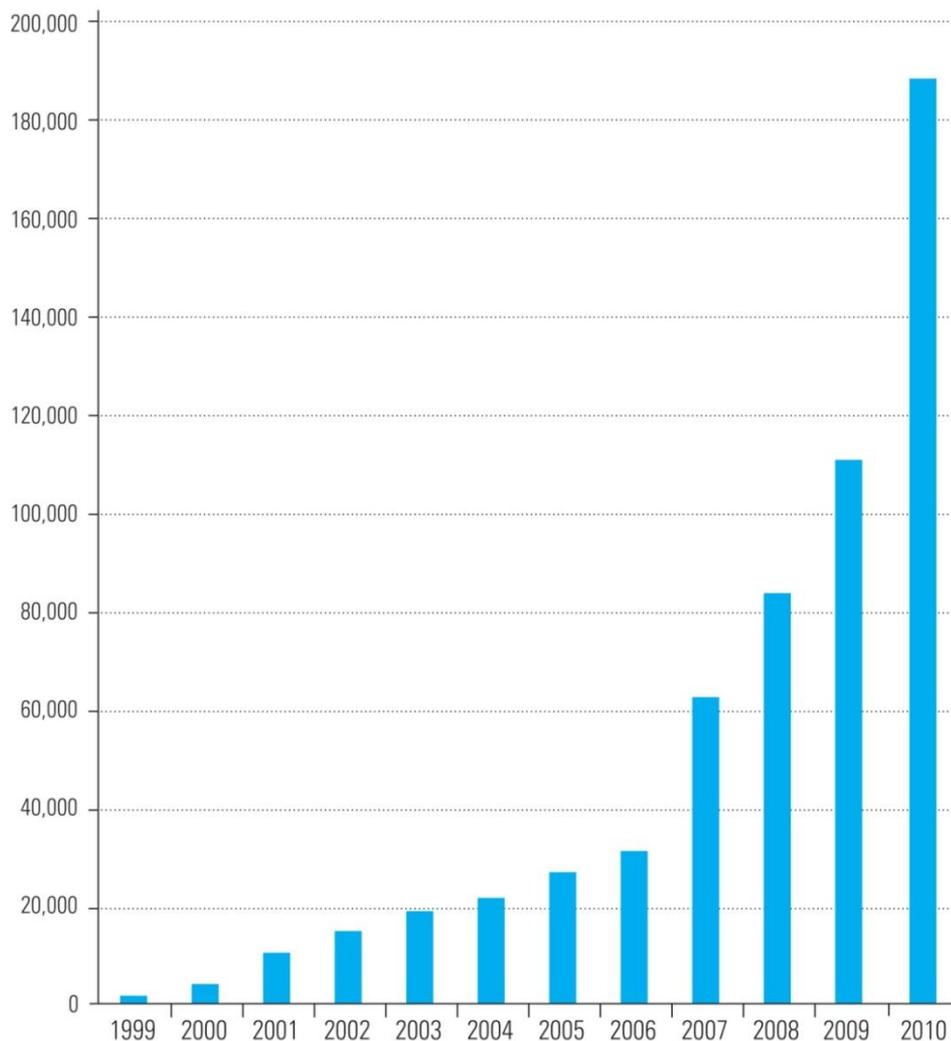
EPA, DOE, NOAA

Symbol of superior energy performance

Recognized by 80% of Americans

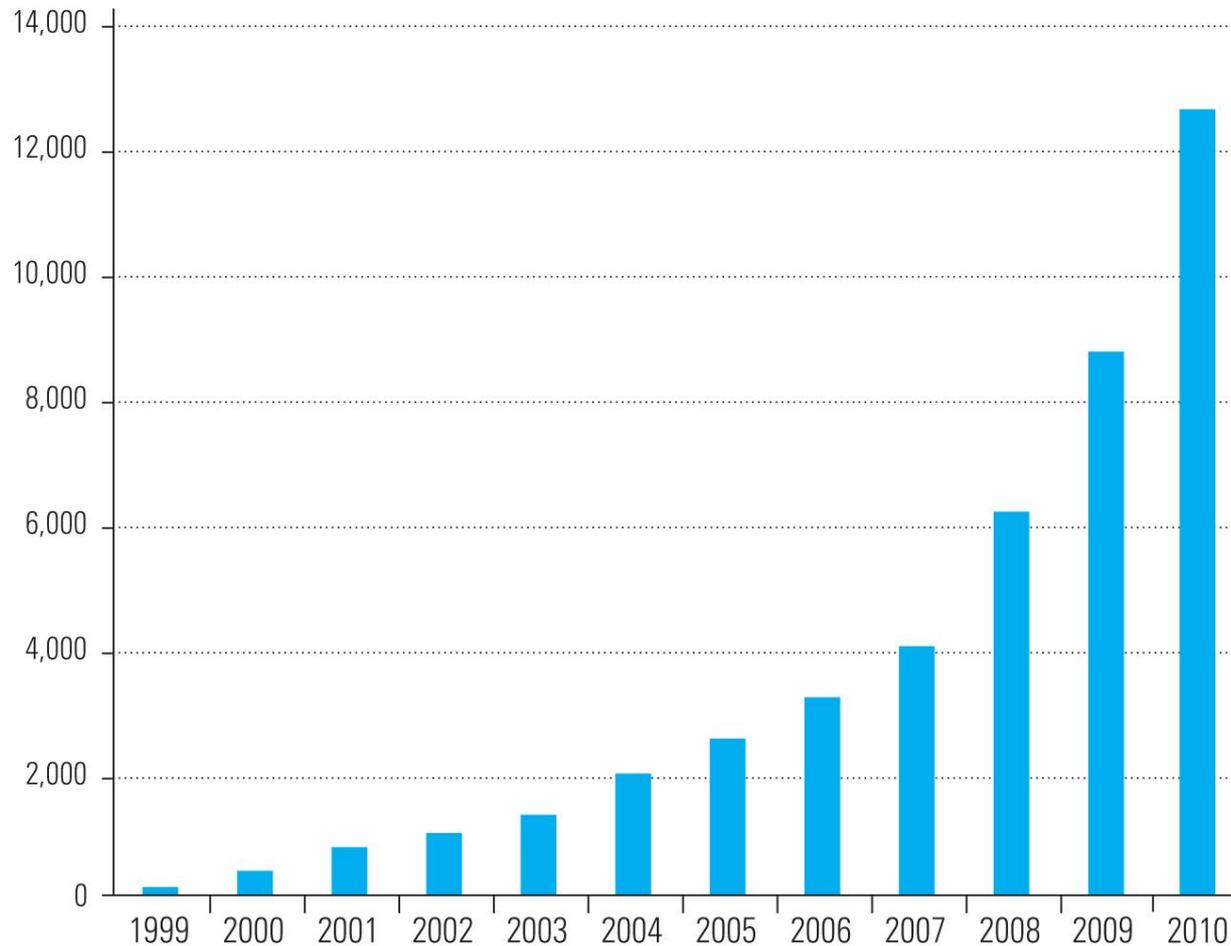
Benchmarking Activity in Portfolio Manager Continues to Increase

Commercial Buildings Benchmarked (cumulative)



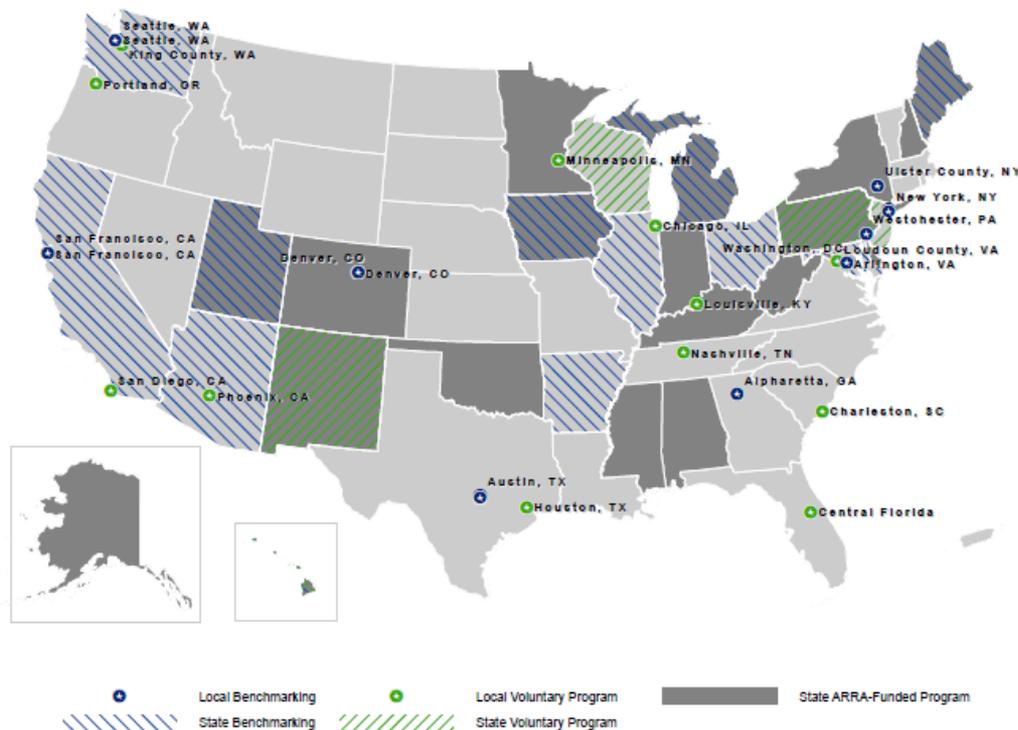
Certification of ENERGY STAR Buildings Continues to Increase

ENERGY STAR Certified Buildings (cumulative)



Benchmarking for Local and State Governments

- Governments across the US are using Portfolio Manager to measure and track energy and water use
 - http://www.energystar.gov/ia/business/government/State_Local_Govts_Leveraging_ES.pdf



- City GHG inventory found that buildings responsible for 74% of emissions
- Benchmarked all buildings in Portfolio Manager in 2009:
 - Received below average results
 - Disclosed results by building type
 - Published list of opportunities for improvement
- Using ARRA funds for energy audits for 260 facilities

<http://green.dc.gov/green/cwp/view,a,1235,q,463697.asp>

- Set a goal to reduce county wide building energy use by 10%
- In 2010:
 - Reduced energy use by 10.1% in 43 County owned buildings
 - Saved \$265,000 in energy use over 2009.
 - Average ENERGY STAR score went from 55 to 61
- Portfolio Manager metrics in 2010 Sustainability Report

<http://www.co.pierce.wa.us/pc/abtus/ourorg/facmgmt/sustainability/homeR.htm>

Overview of Benchmarking with Portfolio Manager

What is the ENERGY STAR Energy Performance Scale?

- 1 to 100 score for existing commercial buildings
 - 50 = national average
 - 75 = required for ENERGY STAR Certification
- Normalizes for weather, operating hours, occupant density, plug load

FAQ: Do buildings added to the tool affect the 1 to 100 scale?

Performance of buildings added to Portfolio Manager does not change the scale. The scale is based on a national survey of commercial buildings.

ENERGY STAR Energy Performance Scale

Is 60 MPG high or low
for this automobile?

Compare this vehicle to others in the FREE FUEL ECONOMY GUIDE available at the dealer.

CITY MPG	Fuel Economy Information	HIGHWAY MPG
60	2004 TOYOTA PRIUS 4-CYL. 1.8 LITER I4 EPA 24/34/41 CITY/HTWAY/COMB. SEI ENGINE AUTOMATIC VARIABLE GEAR RATIO TRANSMISSION	51

Estimated Annual Fuel Cost: \$ 382

see www.fueleconomy.gov

Fuel Efficiency:
MPG

Is 90 kBtu/SF/YR high or low
for this building?

STATEMENT OF ENERGY PERFORMANCE
Margrave High School
Building ID: 102110
For 12-month Period Ending: January 31, 2004¹
Date SEP Generated: March 30, 2004

Facility Space Use Summary	Area ⁽¹⁾	Number of Students	Number of PCs	Cooling Percent
Space Type	154	NA	NA	NA
Computer Data Center	351221	1,021	420	100

Site Energy Use Summary	Professional Verification
Electricity (kBtu)	5,680,861
Propane (kBtu)	320,812
Natural Gas (kBtu)	0
Total Energy (kBtu)	5,979,229

Energy Performance Rating⁽¹⁻¹⁰⁰⁾: 94

Energy Intensity⁽¹⁾
Site (kBtu/SF-yr): 17
Square (kBtu²/yr): 48.4

Exhaustion
CO₂ (1000 lbs/yr): 6,791
SO₂ (1000 lbs/yr): 260
NO_x (1000 lbs/yr): 21

Energy Cost
Cost (\$/yr): \$214,460
Intensity (\$/SF-yr): \$0.72

Indoor Environment Criteria⁽¹⁾
Index or sub-index available? Yes
Adequate ventilation provided? Yes
Thermal conditions met? Yes
Adequate illumination provided? Yes

Notes:
⁽¹⁾ For more information on the Energy Performance Rating, see the Energy Performance Rating Handbook at www.eere.energy.gov.

Energy Performance
Rating: **1 to 100**

1-100 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

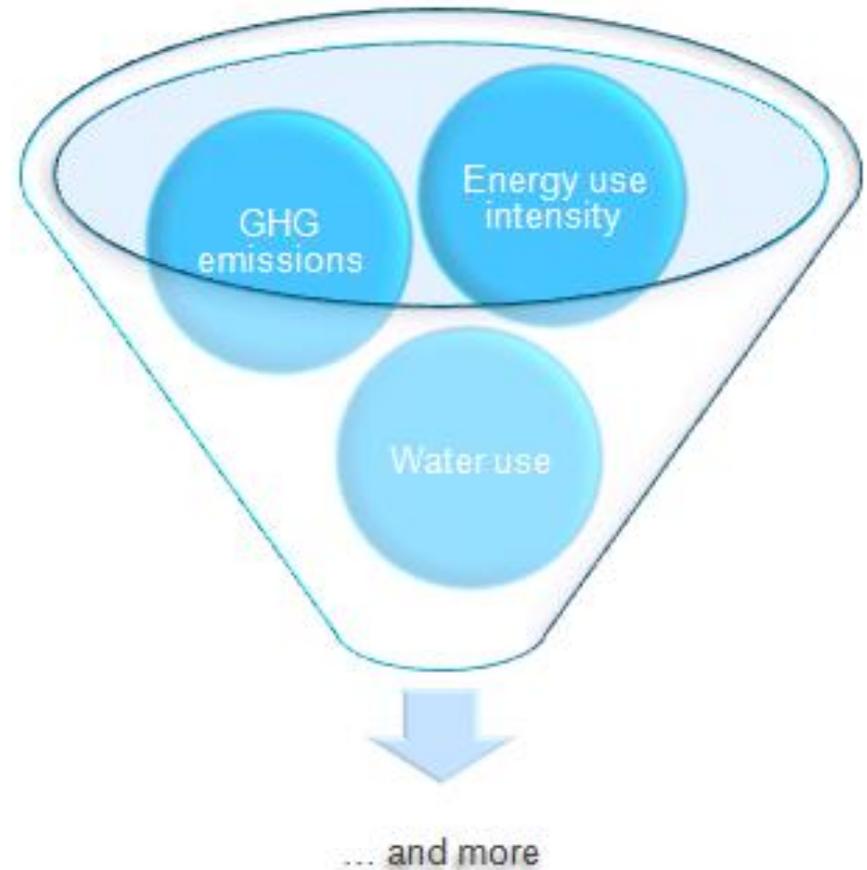


**Wastewater
Treatment Plants**



**Senior Care
Communities**

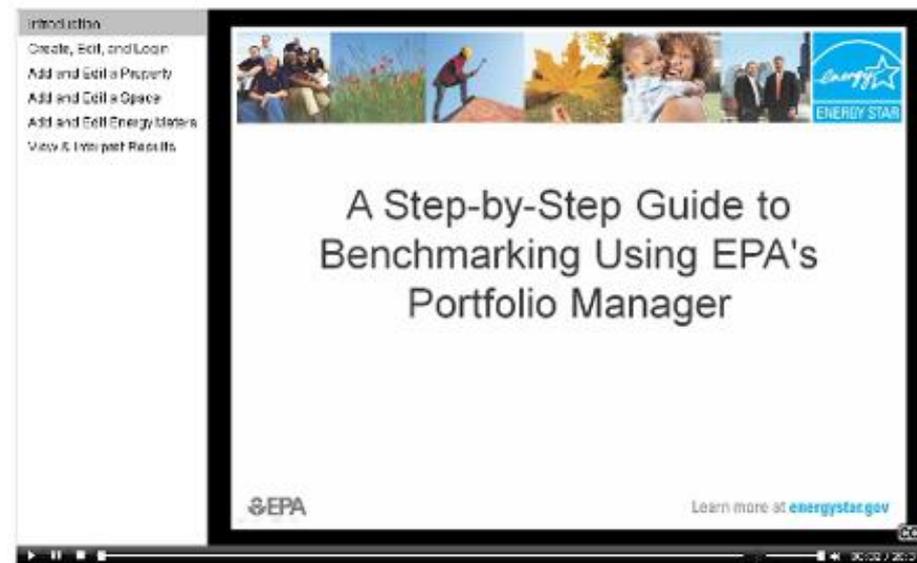
- Track water use, energy intensity, and emissions
- Compare to national average energy intensity for the building type
- Such as:
 - Police Stations
 - Fire Stations
 - Libraries



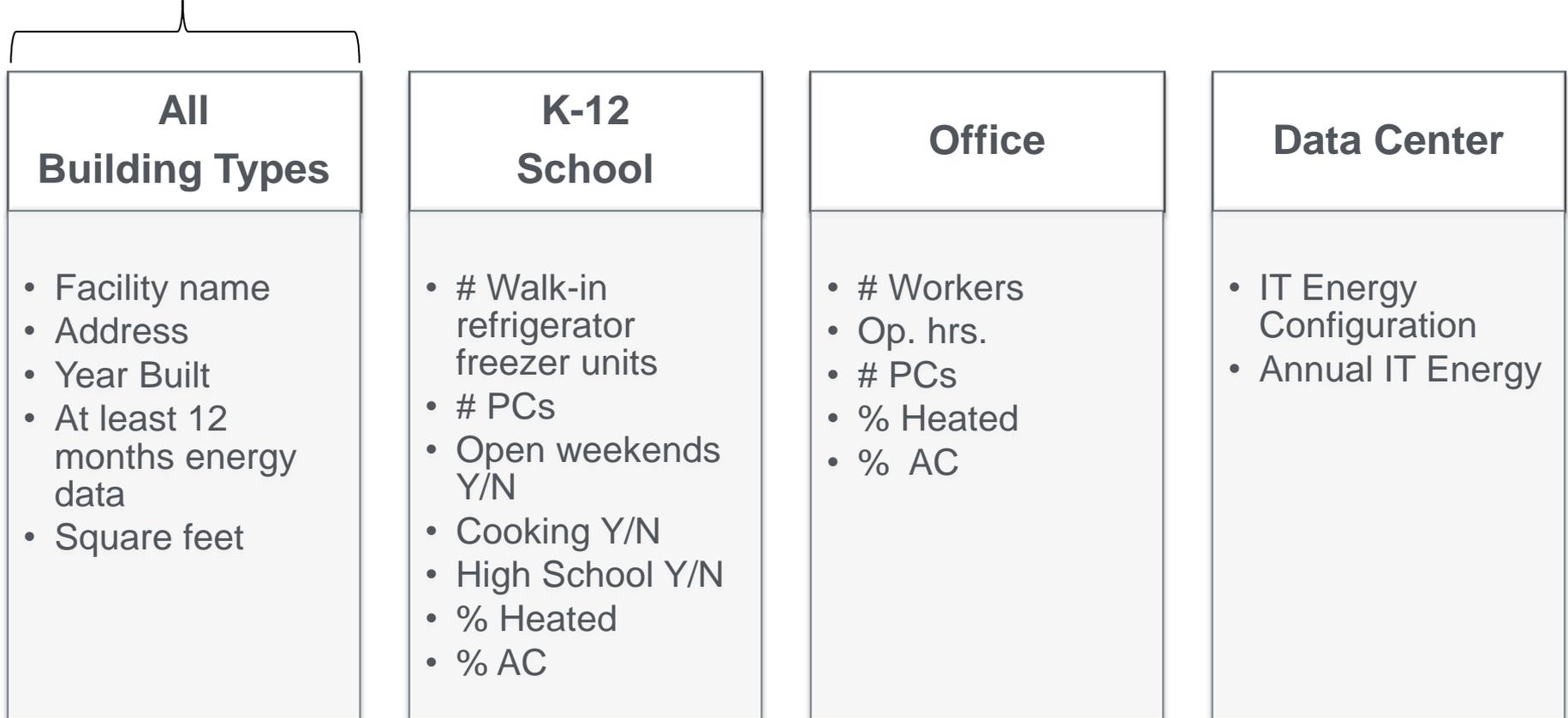
1. Create/edit a Portfolio Manager account
2. Add/edit a property
3. Add/edit a space
4. Add/edit energy meters

Benchmarking Starter Kit:

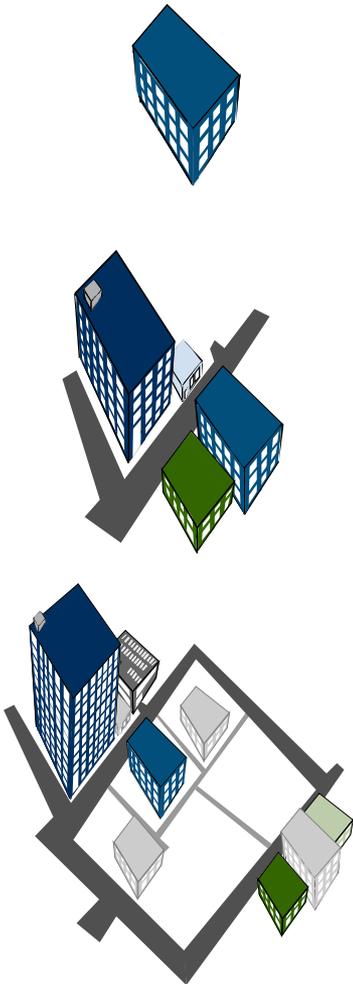
- Animated Portfolio Manager training
- Data Collection Worksheet
- Step-by-step Quick Reference Guide



Required for Energy Intensity



Additional Information Required for Score



- **Single Building Manual Entry**
 - Enter benchmarking information into Portfolio Manager.
- **Bulk Data Upload**
 - Upload large sets of data in Portfolio Manager using an Excel template.
- **Automated Benchmarking Services**
 - A framework for exchanging data using web services between the EPA's rating system and third parties.

- Mass Import Template
 - For initial import of 10 or more buildings of the same type (e.g. 10+ offices, 10+ schools)
 - Specific Excel template for each building type
 - Detailed instructions on the first tab
 - Processed within a matter of weeks

- Multi Facility Meter Update
 - For meters already in PM
 - Users select # of meters and months to update
 - User uploads completed spreadsheet in PM and receives email when meters are updated

FAQ: Can I use this tool to update a new meter with historical billing data?

Yes. Create the new meter and then use the Multi Facility Meter Update to add historical data.

- This service allows customers to automatically receive monthly Portfolio Manager data in the same web-based interface that customers view other energy and building information.
- Web services using Extensible Markup Language (XML) to transfer data
- Third parties can use web services to manage, export, and report Portfolio Manager data.
- EPA has experience integrating with utilities, energy software and bill payment companies, regional efficiency programs, and large multi-site organizations.
- www.energystar.gov/abs

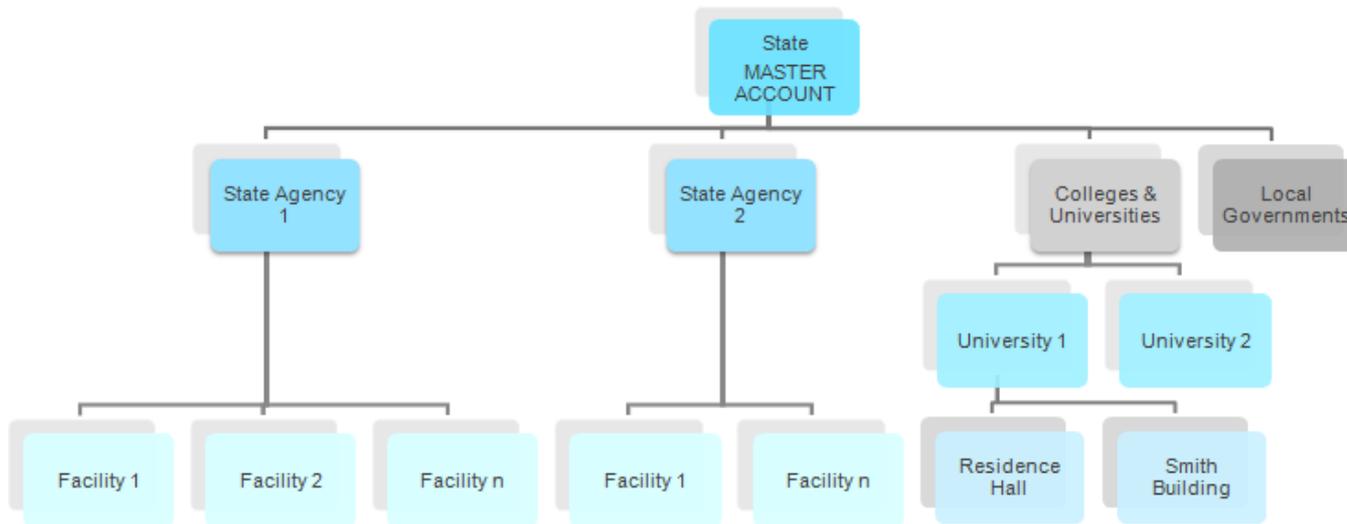
Service Providers Offer Automated Benchmarking

- Advantage IQ
- American Energy Assets
- Angus Systems
- CA Technologies
- eComponents Technology
- EduCon
- ei3
- Energard Technologies
- Energy Print
- Energy Watchdog
- EnergyCAP, Inc.
- EnergySolve
- IBS, Inc.
- Johnson Controls
- LPB Energy Management
- New Energy Technology
- NISC
- NorthWrite
- Performance Systems Development
- Planet Footprint
- Rapid Improvement Associates
- Siemens
- Summit Energy
- Sustainable Real Estate Manager
- The E Group
- TRC Energy Services
- UtilityAccounts.com

Complete list: http://www.energystar.gov/index.cfm?c=spp_res.pt_spps_automated_benchmarking

- Current ABS providers
 - **Washington Utilities:** Avista Utilities, Puget Sound Energy
 - **California utilities:** PG&E, SDG&E, SoCal Gas, Southern California Edison, SMUD
 - ComEd, WPPI Energy (WI schools)
- Developing ABS
 - Seattle City Light
- Considering ABS
 - Austin Energy, Arizona Public Service, Baltimore Gas & Electric, Pepco

- One consistent tool provides an accessible, consistent measurement platform for all commercial buildings
- Many data sharing options available:
 - Master Accounts link many Portfolio Manager accounts
 - External Reporting / Data Requests
 - Automated Benchmarking Services



Sample Master Account Illustration

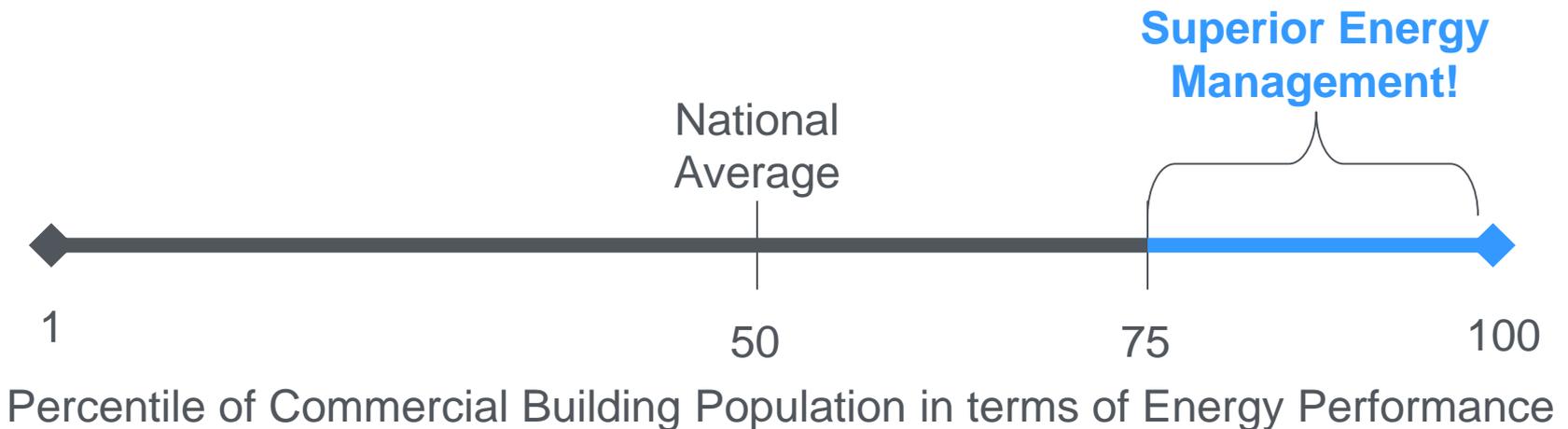
Communicating Success

- Statement of Energy Performance
 - Official output of Portfolio Manager
 - Document single building benchmarking results
- Create custom views
 - Track “Change from baseline: adjusted energy use (kbtu)” to demonstrate savings from EECBG retrofit projects
- Reporting tool capabilities
 - Gives access to much more data
 - Use standard “Energy Performance” report
 - Download data in Excel, CSV, PDF, and XML

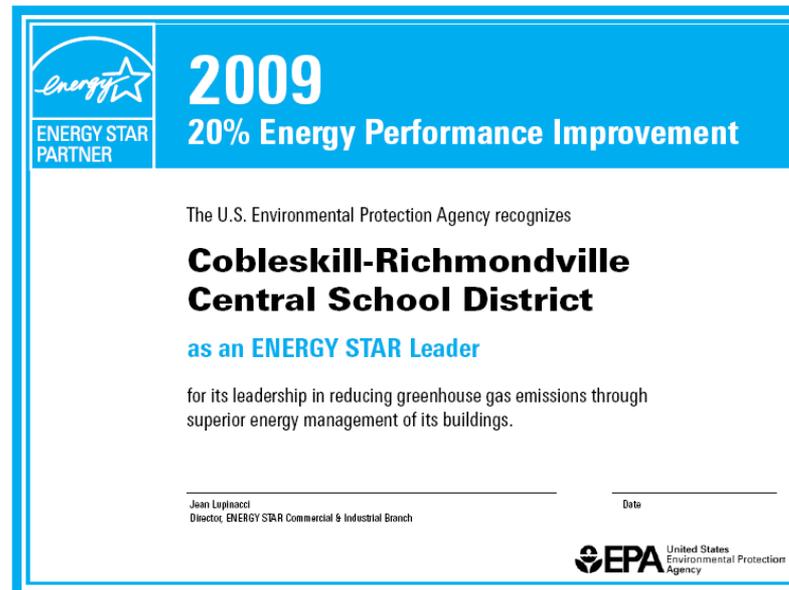
Portfolio Manager offers a FREE and uniform way to disclose energy performance – to meet internal policies or for external requirements.

- Begin benchmarking now and ongoing
- Reporting happens at specific times
 - Select specific baseline to compare to recent/current period
 - Set baseline at month/year of retrofit completion
 - Score / energy intensity can start to show change within a couple months of project
 - Full effect of project is reflected 12 months after project completion

- National recognition for top energy performance of commercial buildings.
 - Professional Engineer or Registered Architect must stamp application.
 - Receive a certificate of achievement and a blue or white decal.

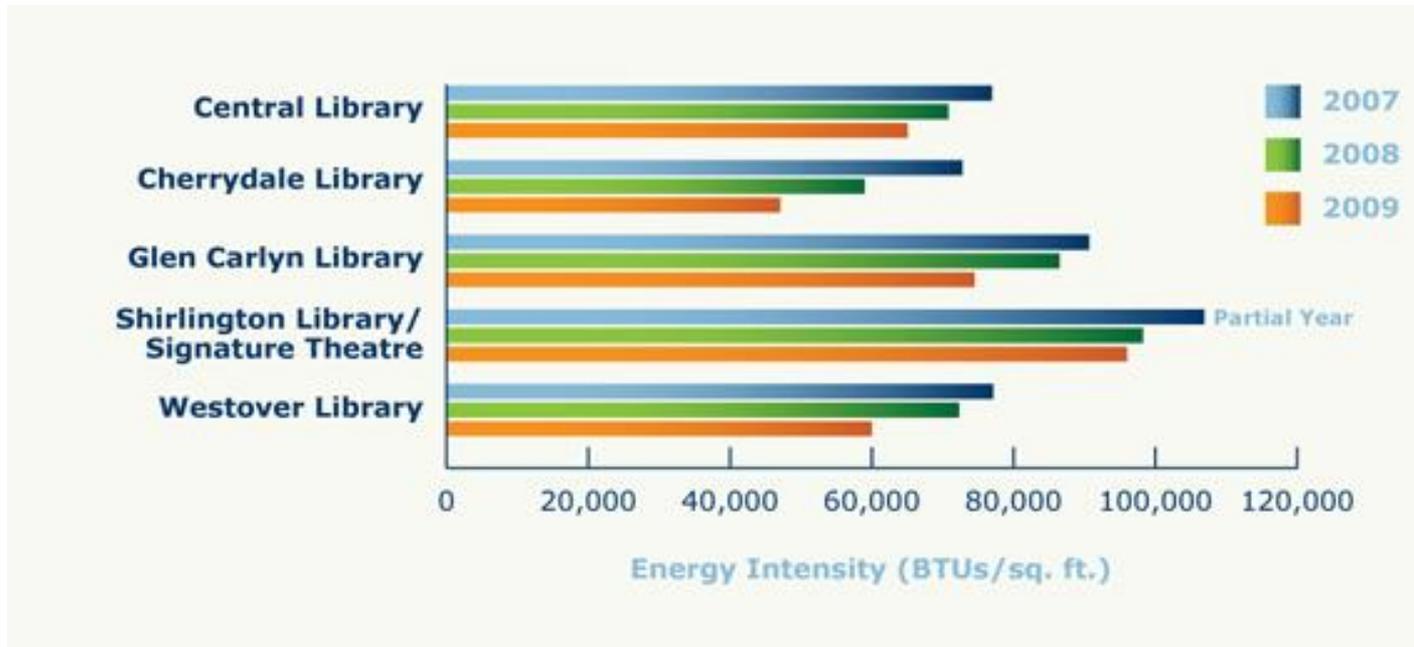


- **ENERGY STAR Leaders** for portfolio-wide improvements
 - Benchmark portfolio of buildings
 - Show improvement of 10%, 20%, 30%, etc.
 - Average portfolio score of 75 or higher



Verify Improvements... and Communicate Them!

- Arlington County, VA's 2007-2009 Building Energy Report Cards



- Used Portfolio Manager to measure results
 - Created year to year comparison by building type
 - Published results on County web site
- www.arlingtonva.us/portals/topics/aire/page66219.aspx

Benchmarking Resources

- ENERGY STAR Performance Contracting Best Practices:
www.naesco.org/resources/industry/documents/2008-05.pdf
 - Why and how ESCOs use the ENERGY STAR tools in the context of a typical EPC project
 - Sample text to integrate ENERGY STAR tools into an EPC project
- Search for Most Active ENERGY STAR Service & Product Providers: www.energystar.gov/index.cfm?fuseaction=spp_activity
 - Provided Clients with Portfolio Manager Benchmarks
 - Helped Clients Earn the ENERGY STAR labels
 - Improved Client Buildings by 10 points or more
 - Served Clients who are ENERGY STAR Leaders
- Search for Service Providers that Offer Automated Benchmarking:
www.energystar.gov/index.cfm?c=spp_res.pt_spps_automated_benchmarking

ENERGY STAR **PORTFOLIO MANAGER**

ACCOUNT INFORMATION CONTACTS **FAQ** FREQUENTLY ASKED QUESTIONS CONTACT US **HELP** LOGOUT

[Home](#) > [My Portfolio](#) > Sample Building

Facility Summary: **Sample Building**
[How do I use this page?](#)

General Information [Edit](#)

Address: 1234 Main St , Dallas, TX 75201

- Click the "**Help**" button to access searchable online user-support information.
- Click the "**FAQ**" button to access a searchable database of Frequently Asked Questions.
- Click the "**Contact Us**" or email for buildings@energystar.gov further technical assistance

ENERGY STAR Web site:

www.energystar.gov/benchmark

DOE Solution Center:

www.eere.energy.gov/wip/solutioncenter

DOE Technical Assistance Center:

<https://tac.eecleanenergy.org/>

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