



Walk the Walk with the ENERGY STAR Commercial & Industrial Program

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US Environmental Protection Agency

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The biggest little label in energy efficiency



products
4.8 billion

homes
1.5 million

buildings
28,000

industrial plants
130

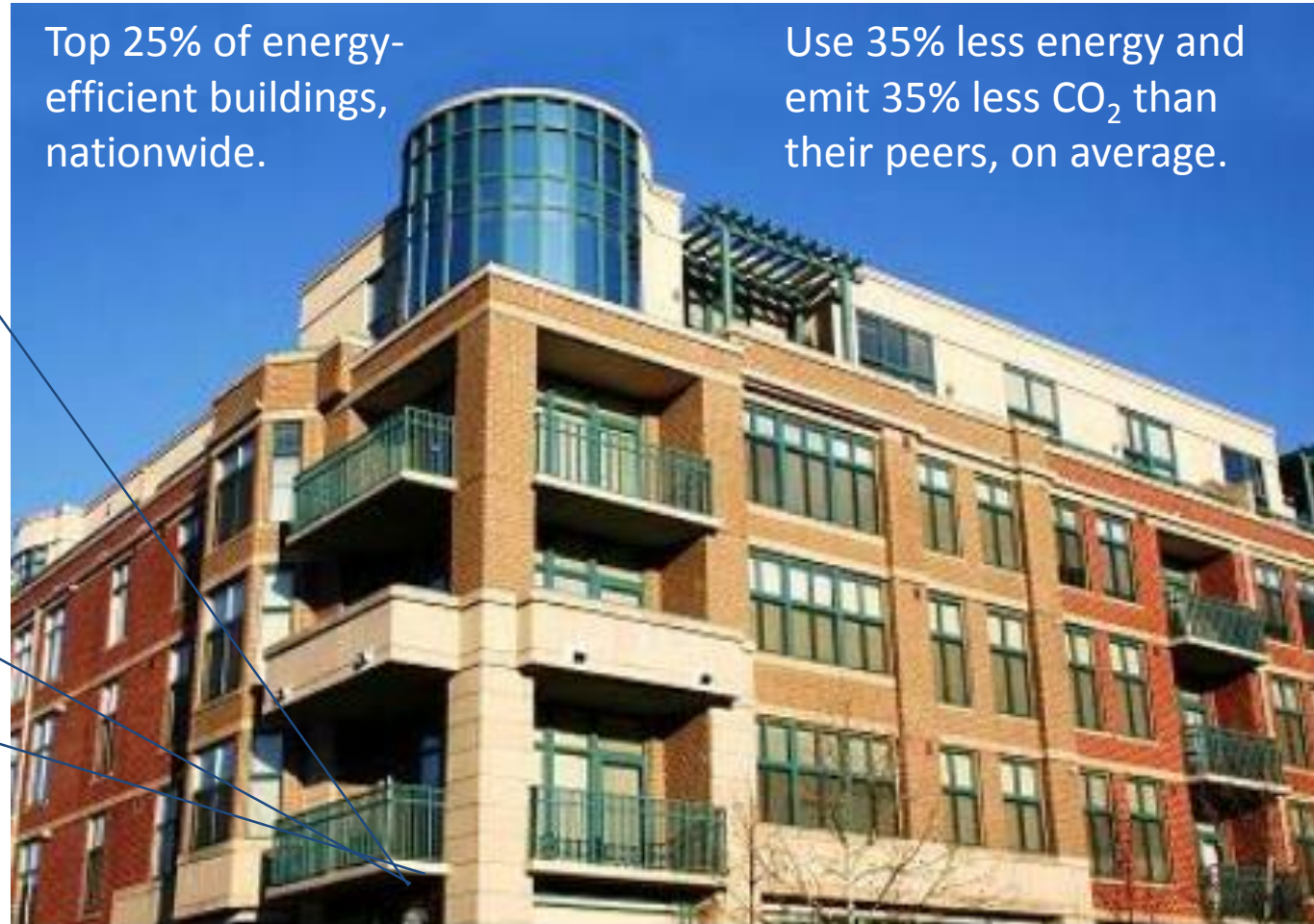




The most energy-efficient U.S. buildings and plants earn EPA's ENERGY STAR Certification

Top 25% of energy-efficient buildings, nationwide.

Use 35% less energy and emit 35% less CO₂ than their peers, on average.



Why focus on buildings?

- Commercial buildings and industrial facilities generate about **50 percent** of U.S. carbon dioxide emissions.
- **30 percent** of energy consumed in commercial and industrial buildings is wasted.
- Reductions of **10 percent** or more in energy use are possible with little or no cost.
 - Energy is a controllable cost.
 - Energy is a significant percentage of your operating costs and reduces operating profit.



101 North Wacker
Chicago, IL
ENERGY STAR Certified 2008-2014





ENERGY STAR

Commercial and Industrial Program

- Offers a strategic approach to energy management
- Enables building and plant owners and operators to save money & protect the environment
- Provides organizations with measurable information on energy savings and greenhouse gas (GHG) emissions reductions from buildings
- Builds on strong ENERGY STAR brand recognition
- ENERGY STAR on a building or plant = Superior Energy Performance

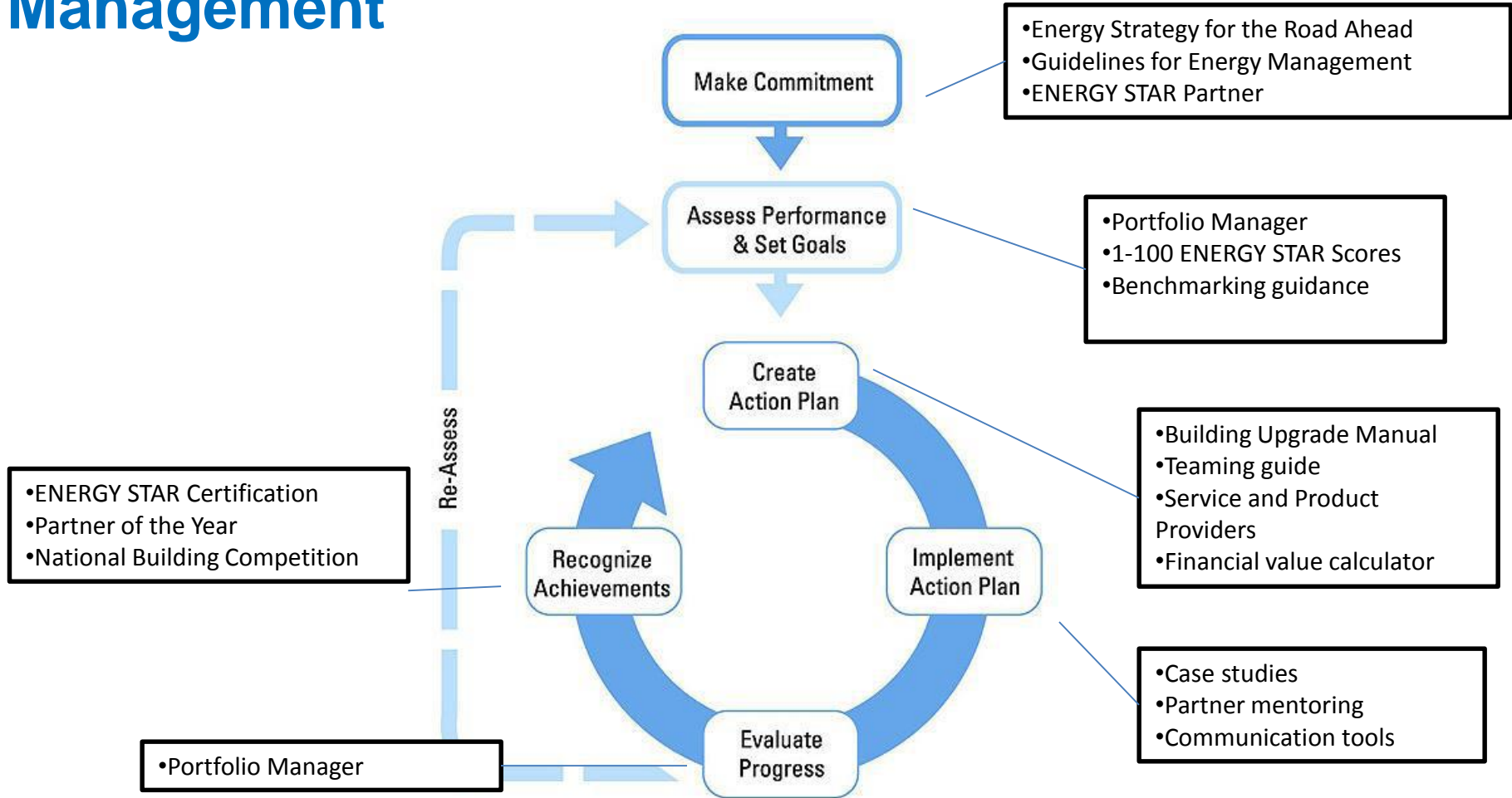


ENERGY STAR Principles and Approaches

- **Focused** – achieves GHG reductions through improvements in energy (and water) efficiency.
- **Flexible** – provides a technology-neutral comprehensive platform for energy management in individual buildings and at the portfolio level.
- **Practical** – provides free, innovative tools and resources to assist owners, operators, and occupants in planning and implementing energy reduction programs.
- **Valuable** – leverages brand recognition to incentivize engagement, improvements, and top performance through recognition from EPA.



ENERGY STAR Guidelines for Energy Management





Commercial Buildings Partnership

sears



TRANSWESTERN®

PROVIDENCE
Health & Services

VORNADO
REALTY TRUST

STAPLES®



Hines



GSA U.S. General Services Administration

USAA Real Estate Company

SUNRISE
SENIOR LIVING

KAISER PERMANENTE®



Goodwill
Industries International, Inc.



xpedx

INOVA HEALTH
SYSTEM

KOHL'S
expect great things

AvalonBay
COMMUNITIES, INC.

CBRE
CB RICHARD ELLIS

verizon
wireless

NewYork-Presbyterian
The University Hospital of Columbia and Cornell



Industrial Partnership



CORNING



EASTMAN



PEPSICO



ConAgra Foods



ExxonMobil



Saputo



Kellogg's

CALPORTLAND



Bristol-Myers Squibb

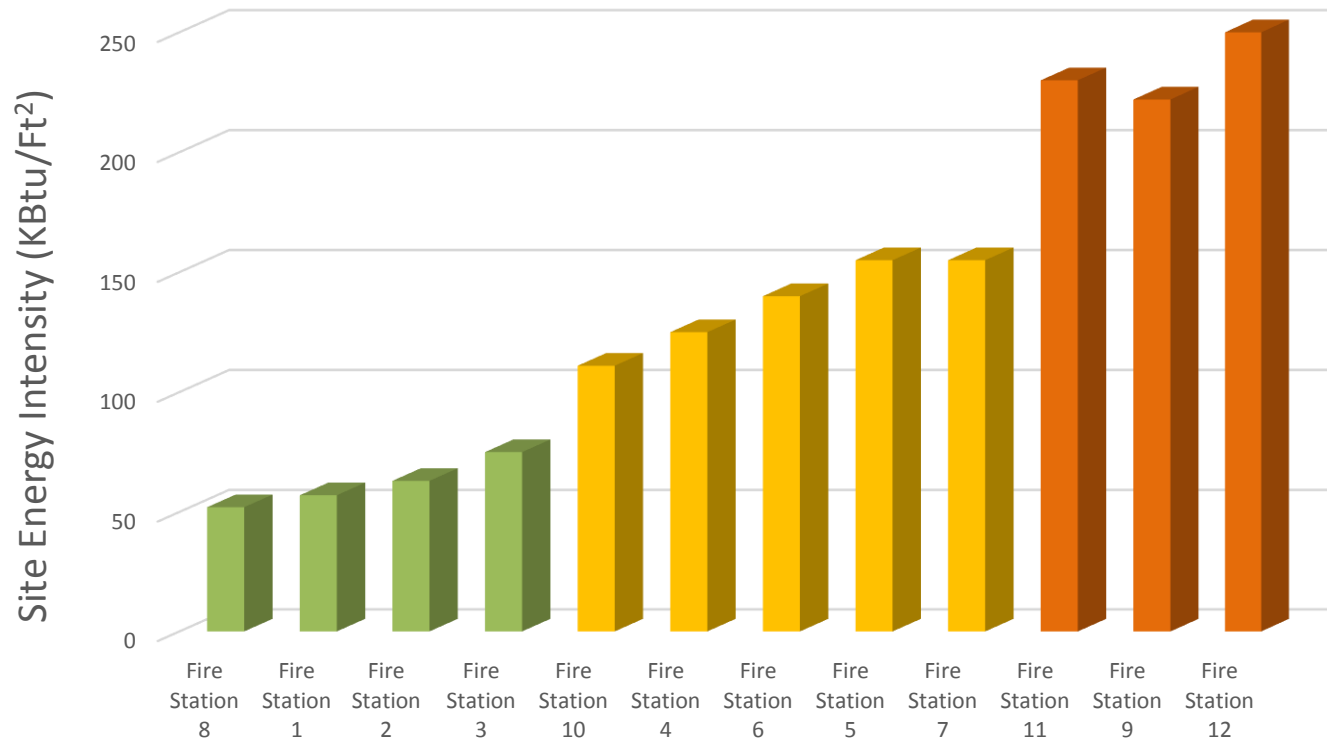


FlowersFoods
BAKERIES GROUP

Benchmarking and the 1-100 ENERGY STAR score



They look the same, but they're not . . .





ENERGY STAR® **PortfolioManager**®

A Metrics Calculator that generates key performance indicators.

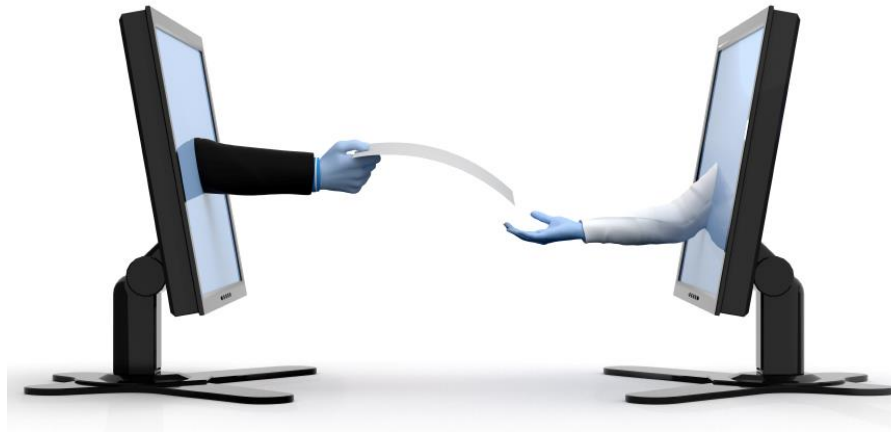
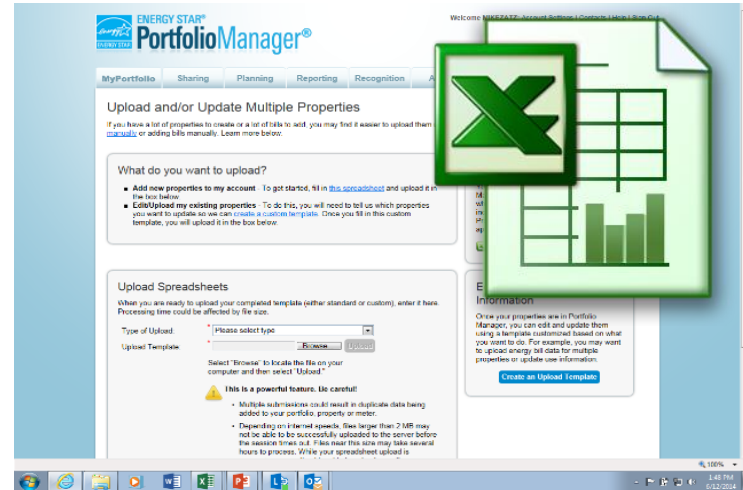
- ✓ Energy consumption (source, site, weather normalized, EUI)
- ✓ Water consumption (municipally supplied potable and reclaimed, alternative)
- ✓ Waste generation (29 types, 4 management methods, diversion)
- ✓ Greenhouse gas emissions (indirect, direct, total, avoided)
- ✓ ENERGY STAR 1-to-100 score (compare energy performance against peers)

A Management Tool that provides a platform for a strategic energy management

- ✓ Identify high performing facilities for recognition and replicable practices.
- ✓ Prioritize poor performing facilities for immediate improvement.
- ✓ Understand the contribution of energy expenditures to operating costs.
- ✓ Develop a historical perspective and context for future actions and decisions.
- ✓ Establish reference points for measuring and rewarding good performance.
- ✓ Apply for ENERGY STAR certification

→ ***Accessible in a free, online secure platform: www.energystar.gov/benchmark***

Choose the best data management method





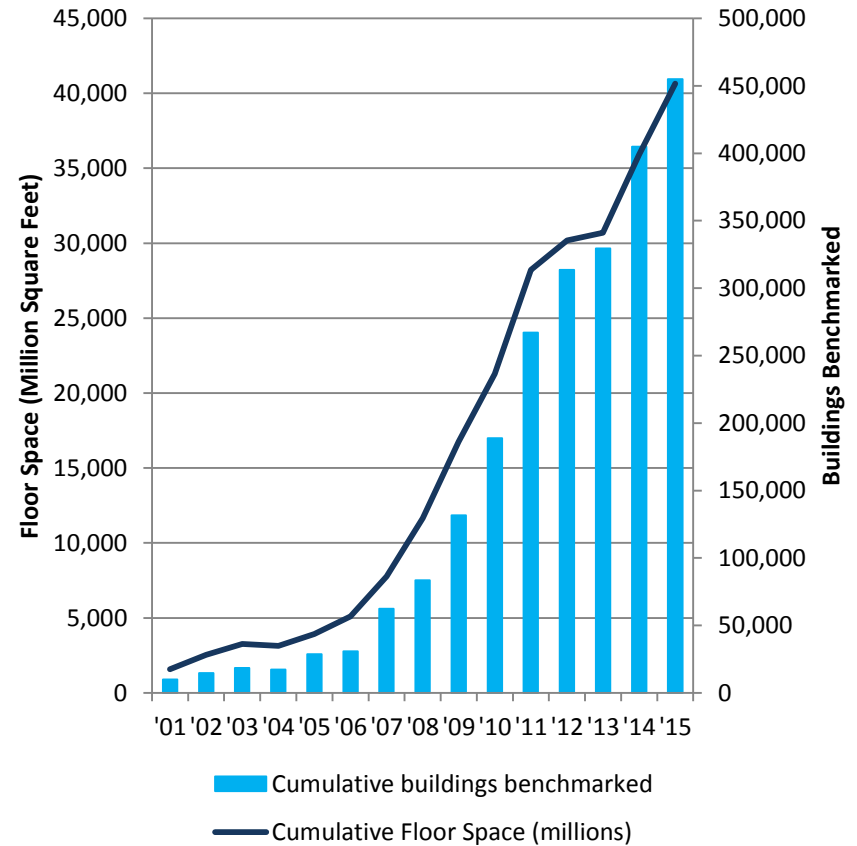
ENERGY STAR® PortfolioManager®

Over 45% of the U.S. commercial building market

450,000+ buildings

40 billion+ square feet

~ 4,000 unique users log in every week





ENERGY STAR®
PortfolioManager™

Welcome

[Account Settings](#) | [Contacts](#) | [Help](#) | [Sign Out](#)
 Language: [English](#) | [Français](#)

MyPortfolio
Sharing
Planning
Reporting
Recognition

Insurance Office

5201 Blue Lagoon Dr, Arlington, VA 20221 | [Map It](#)

Portfolio Manager Property ID: 5000003 | Primary: [Office](#)

Year Built: 1995

ENERGY STAR Score

Current Score: 94

Baseline Score: 83

Summary
Details
Meters
Goals
Design

Source EUJ Trend

Year	Source EUJ
2007	240
2008	235
2009	225
2010	220
2011	230
2012	210

Notifications

You have no new notifications.

Sharing this Property

Shared with: 1 [Contacts](#) ([ABS](#))

Share

Name	Permissions	Action
Miller, Clara	Full Access	I want to... ▼

Edit Multiple Permissions

▶ If you're a pro, you may want to [upload and/or update multiple properties](#) at once using an Excel spreadsheet. This can be done to create new properties, add use details, create meters and add meter consumption data.



1-100 ENERGY STAR Score Objectives

- Reduce greenhouse gas emissions from energy use in buildings
 - Relies on actual, measured energy bill data
- Evaluate whole building energy use
 - Accounts for combined effects of technology, operation, maintenance, and usage patterns
 - Recognizes that these factors all affect each other and the bottom line measured energy consumption
- Motivate organizations to develop a strategic approach to energy management
- Provide a comparative, national benchmark
 - Adjusts for weather and business choices (e.g. hours of operation) for fair comparisons
 - Ranks performance relative to similar existing buildings in the market

Property Types with ENERGY STAR Scores



Bank Branch



Barracks*



Financial Offices



K-12 Schools



Supermarkets



**Wholesale club/
Supercenters**



Medical Offices*



Hotels



**Residence
Hall/Dormitory***



Office Buildings



Courthouses



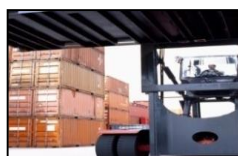
Worship Facilities



Retail Stores



**Distribution
Centers**



Warehouses



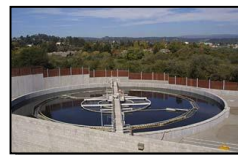
Data Centers



Hospitals



**Senior Care
Communities**



**Wastewater
Treatment Plants***



**Multifamily
Housing**

Industrial Focus Sectors

- **Ammonia Fertilizer**
- **Cement Manufacturing** ★
- **Concrete**
- **Commercial Baking** ★
 - Cookies & Crackers
 - Breads & Baked Goods
- **Corn Refining** ★
- **Dairy Processing**
 - Fluid dairies
 - Cheesemaking
 - Ice Cream
- **Food Processing**
 - Juice ★
 - Potato Products ★
 - Tomato Products
- **Glass Manufacturing**
 - Fiberglass
 - Flat glass ★
 - Container glass ★
- **Motor Vehicle Manufacturing**
 - Automobile Assembly Plants ★
 - Engine Plants
 - Transmission plants
- **Metal Casting**
 - Ferrous
 - Aluminum
- **Petrochemical Manufacturing**
- **Petroleum Refining** ★
- **Pharmaceuticals** ★
- **Printing**
- **Pulp & Paper**
 - Integrated Mills ★
 - Pulp Mills ★
- **Steel**
 - Primary Steel ★
 - Mini Mills



Data required to receive a score for an office building?

- **Property Use Details**
 - Gross Floor Area (sq. ft.)
 - Number of Weekly Operating Hours (when most workers are present)
 - Number of Workers on Main Shift
 - Number of Computers
 - % Heated and Cooled
- **Whole-Building Energy Consumption Data**
 - Modeled for properties in design phase; measured for existing properties
 - 12 full calendar months
 - All fuels
- **Address with Zip Code**
 - For EPA to retrieve climate/weather details



Data required to receive a score for a warehouse/distribution center?

- **Property Use Details**
 - Gross Floor Area (sq. ft.)
 - Number of Daily Operating Hours (when most workers are present)
 - Number of Workers on Main Shift
 - Number of Walk-In Refrigeration/Freezer Units
 - % Heated and Cooled
- **Whole-Building Energy Consumption Data**
 - Modeled for properties in design phase; measured for existing properties
 - 12 full calendar months
 - All fuels
- **Address with Zip Code**
 - For EPA to retrieve climate/weather details

Portfolio Manager Training Resources

The screenshot shows the ENERGY STAR Portfolio Manager website interface. At the top, there is a navigation bar with tabs for 'MyPortfolio', 'Sharing', 'Planning', 'Reporting', and 'Recognition'. Below this, the 'Portfolio Manager Help' section is visible, containing several links: 'Learn More about Portfolio Manager', 'Take or View a Training', 'Search the Knowledge Base', 'Ask a Question', 'Check the Glossary', and 'Web Service Documentation'. To the right, the 'Technical References' section lists links for 'Source Energy', 'Greenhouse Gas Emissions', 'ENERGY STAR Scale', 'National Median Values', 'Accounting for Climate & Weather', and 'Thermal Conversion Factors'. At the bottom of the page, there are social media links for Facebook, Twitter, and YouTube, along with a 'Follow Us' section and a footer with 'Contact Us', 'Privacy Policy', 'Browser Requirements', and 'ENERGY STAR Buildings & Plants Website'.

- Live and recorded webinars offered regularly
- Short (2-5 minute) training videos
- Step-by-step training guides, FAQs, and technical reference documents
- On-demand user support energystar.gov/buildingstraining

Portfolio Manager 101

ENERGY STAR®
PortfolioManager®

Portfolio Manager 201

ENERGY STAR®
PortfolioManager®

TRAINING VIDEOS

How to Set up Energy and Water Meters in Portfolio Manager

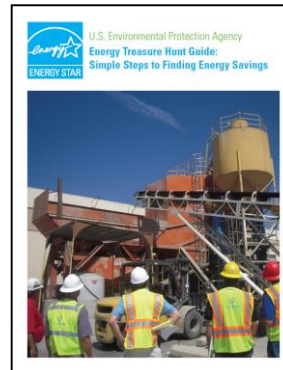
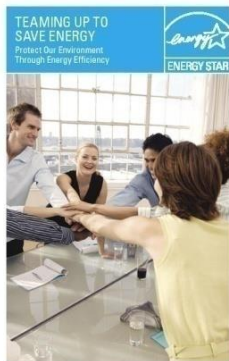
ENERGY STAR®
PortfolioManager®

Improve Efficiency and Earn
Recognition



Strategic energy management guidance & tools

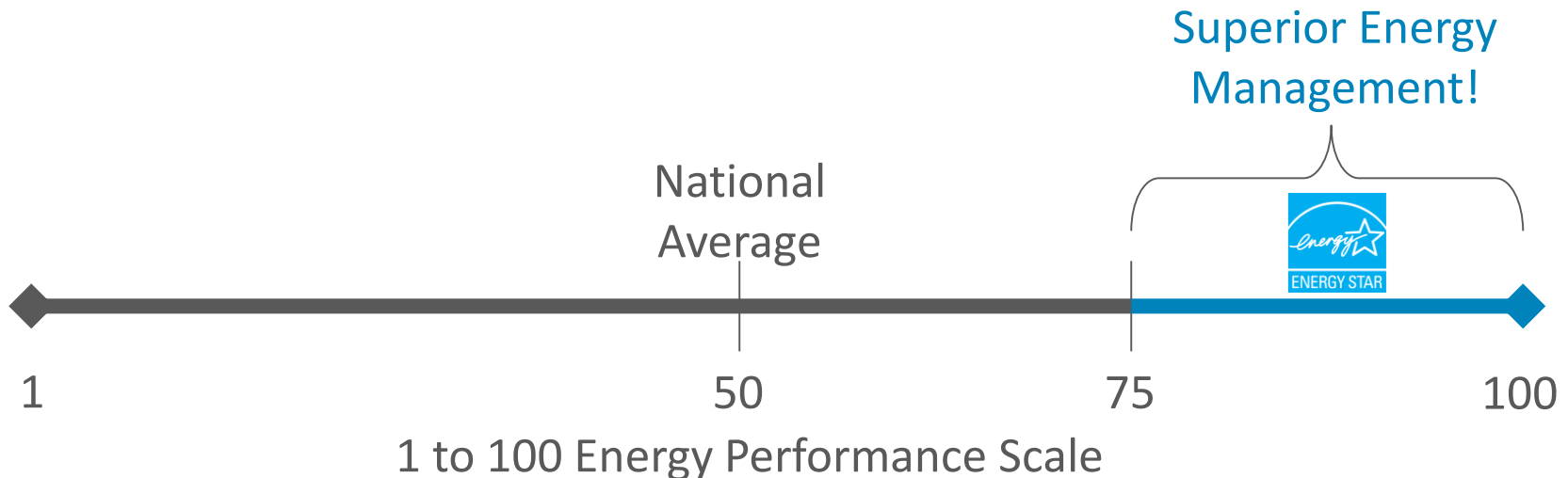
- Guidelines for Energy Management
- Energy Program Assessment Matrix/Facility Energy Program Assessment Matrix
- Teaming up to Save Energy
- Energy Treasure Hunt Guidebook
- Competition Guidebook
- Bring Your Green to Work





ENERGY STAR Certification for Buildings and Plants

- Recognition for superior energy performers – score 75 or above – as verified by a Professional Engineer or Registered Architect.
- Awarded based on calendar year – may re-apply annually.
- No cost to apply (verification may be done by qualified in-house staff or an engineer or architect may be hired).





The Application Process

1. Benchmark your property in Portfolio Manager[®] and achieve an ENERGY STAR score of 75 or higher.
2. Begin the online application in Portfolio Manager.
3. Have a Licensed Professional (LP) conduct a site visit, verifying the information in your application.
4. Complete the online application in Portfolio Manager, upload a scanned copy of the signed application, and submit the application electronically to EPA.
5. Respond to questions from EPA, if necessary.
6. Receive notification of the application's status.

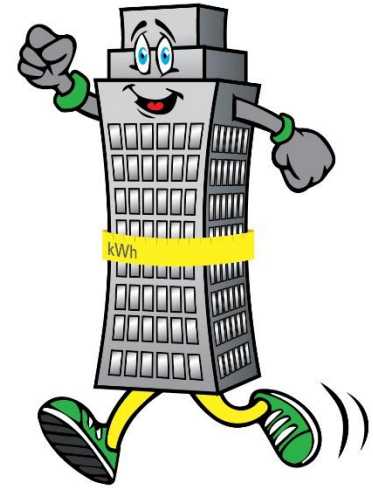
Industrial plants use similar steps but in an off-line process.

EPA Resources for ENERGY STAR Certification

- Application guidance for building owners and verifying professionals.
- Tips for low-cost verifications
- “Top 10” reasons why organizations pursue ENERGY STAR certification
- New video highlights partner testimonials



www.energystar.gov/buildings/facility-owners-and-managers/existing-buildings/earn-recognition/energy-star-certification



Take 90 days to whip your buildings into fighting shape!

- Buildings nationwide compete to reduce energy and water use.
- Register up to 5 buildings to keep your efforts focused
- Recognition is based on percentage improvement in building energy or water use
- ENERGY STAR is providing new toolkits to help you engage occupants
- Learn more and follow along at www.energystar.gov/battleofthebuildings

Key 2016 Dates

- Register: May 17 - July 17
- Compete: September 1 - November 30
- Winners announced in Early 2017

Recognition

Top performers for energy and water efficiency improvement recognized by building category



ENERGY STAR Challenge For Industry

**10% reduction in energy intensity
within 5 years or less.**

- Open to any manufacturing plant.
- Reduction in annual energy intensity from baseline (12 month period in the year prior to taking the Challenge).
- Intensity metric (MMBTU/unit or MMBTU/sq ft) is determined by the plant or company.
- No annual reporting.
- Plants outside the US can participate.
- Verification process required for recognition.

www.energystar.gov/industrychallenge



1220+ plants have taken the Challenge since 2010
400+ plants have achieved the Challenge:
✓ 67 trillion BTUs of energy saved
✓ 13 million metric tons of CO₂e avoided.



Homepage - www.energystar.gov/buildings

Portfolio Manager - www.energystar.gov/benchmark

Training - www.energystar.gov/buildingstraining

Help - www.energystar.gov/buildingshelp

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