



# ENERGY STAR for Buildings and Plants

Climate Protection Partnerships Division  
U.S. Environmental Protection Agency

Fall 2016

# Agenda

- What is ENERGY STAR?
- ENERGY STAR for Buildings & Plants
- ENERGY STAR Portfolio Manager and benchmarking
- Becoming an ENERGY STAR partner
- Recognition opportunities
- Tools & Resources
- On the ENERGY STAR horizon

# The biggest little label in energy efficiency



5.5 billion  
products

28,500  
buildings

130  
industrial  
plants

1.6 million  
homes



For more than 20 years, EPA's ENERGY STAR program has identified the most energy-efficient **products**, **buildings**, **plants**, and **new homes** – all based on the latest government-backed standards.

Today, every ENERGY STAR label is verified by a rigorous third-party certification process.

5.5 billion  
products

28,500  
buildings

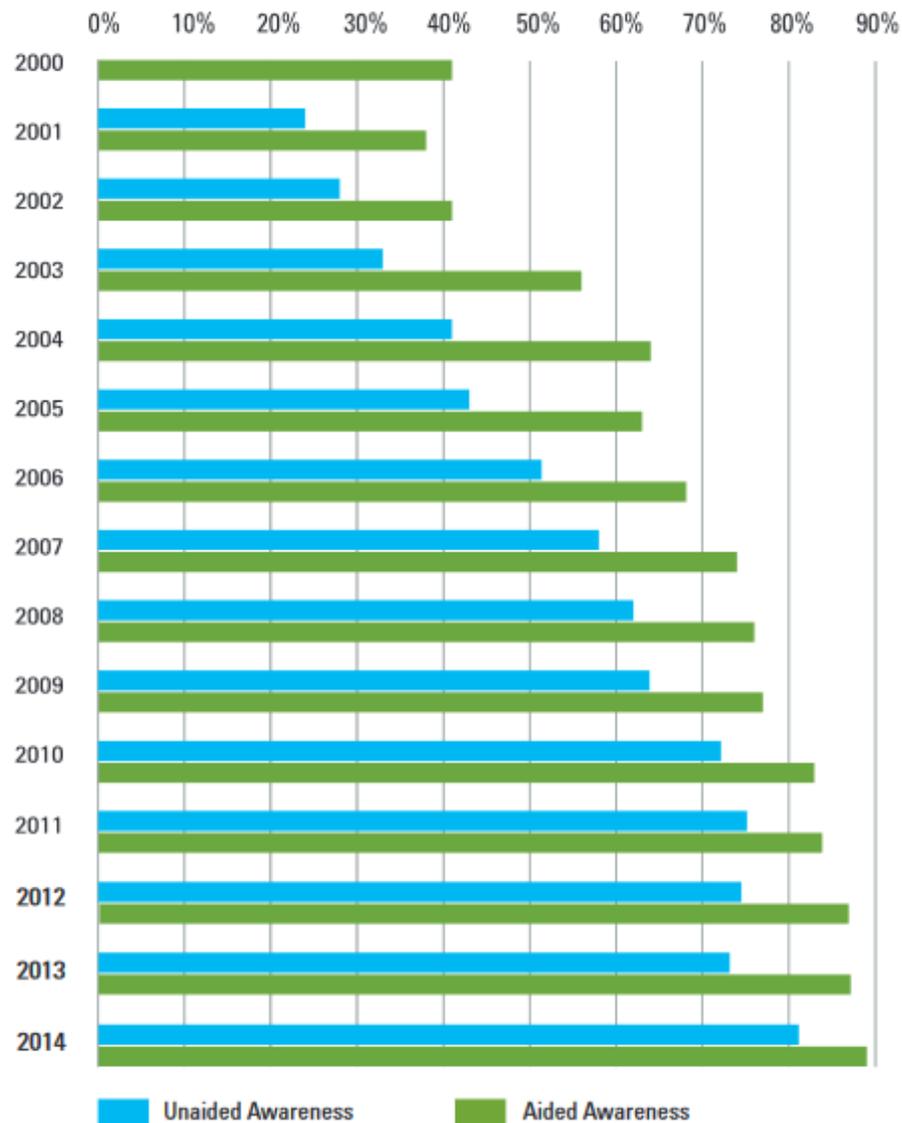
130  
industrial  
plants

1.6 million  
homes



# Consumer awareness

- Recognized by more than 85 percent of the American public.
- Tied with the Good Housekeeping® seal as the most influential consumer emblem in the nation.



Source: National Awareness of the ENERGY STAR for 2014: Analysis of CEE Household Survey, U.S. EPA 2015b.



ENERGY STAR. The simple choice for energy efficiency.



**Today,**  
this little blue label  
does all the hard work  
of certifying outstanding  
energy efficiency in:

**Buildings  
and Plants  
Across**

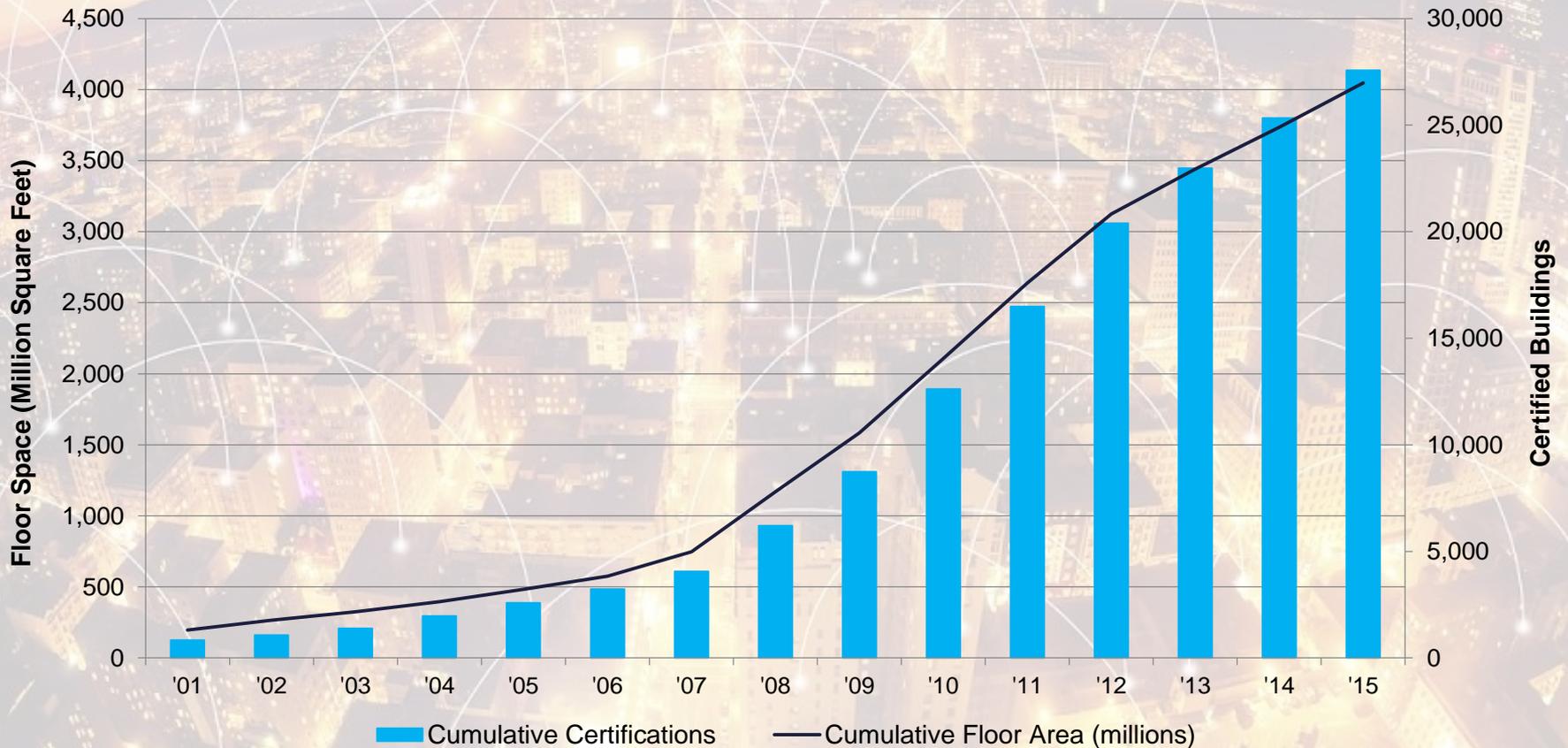
**27**  
**Industries**





## ENERGY STAR signifies superior energy performance

More than **28,500** ENERGY STAR certified properties



# And it's more than just a label...

ENERGY STAR KIDS  
WHAT'S THE WORD? ENVIRONMENTAL SAVVY!  
FOR KIDS: Annual Sale of the Savings at the U.S. Green Card Show

YOUR PLANET NEEDS YOU!  
FIND OUT WHY!

YOU CAN MAKE BIG CHANGES!  
FIND OUT NOW!

Join the LORAX

OFFICE EQUIPMENT ENERGY-SAVING TIPS

- Turn off idle printers
- Power down used
- Use a Multi-Function Device (MFD)
- Switch to a laptop

BATTLE OF THE BUILDINGS BOOTCAMP 2016



ENERGY STAR® PortfolioManager®

The most-used energy measurement and tracking tool for commercial buildings.

WE EARNED IT!

We received U.S. EPA's ENERGY STAR® signifying superior energy performance!

CHANGE THE WORLD. Start with ENERGY STAR.

Make a change today to save energy and protect the climate. 3,297,350 individuals already have.

TAKE THE PLEDGE | JOIN TEAM ENERGY STAR | BECOME A PLEDGE DRIVER | SHARE YOUR STORY

ENERGY STAR



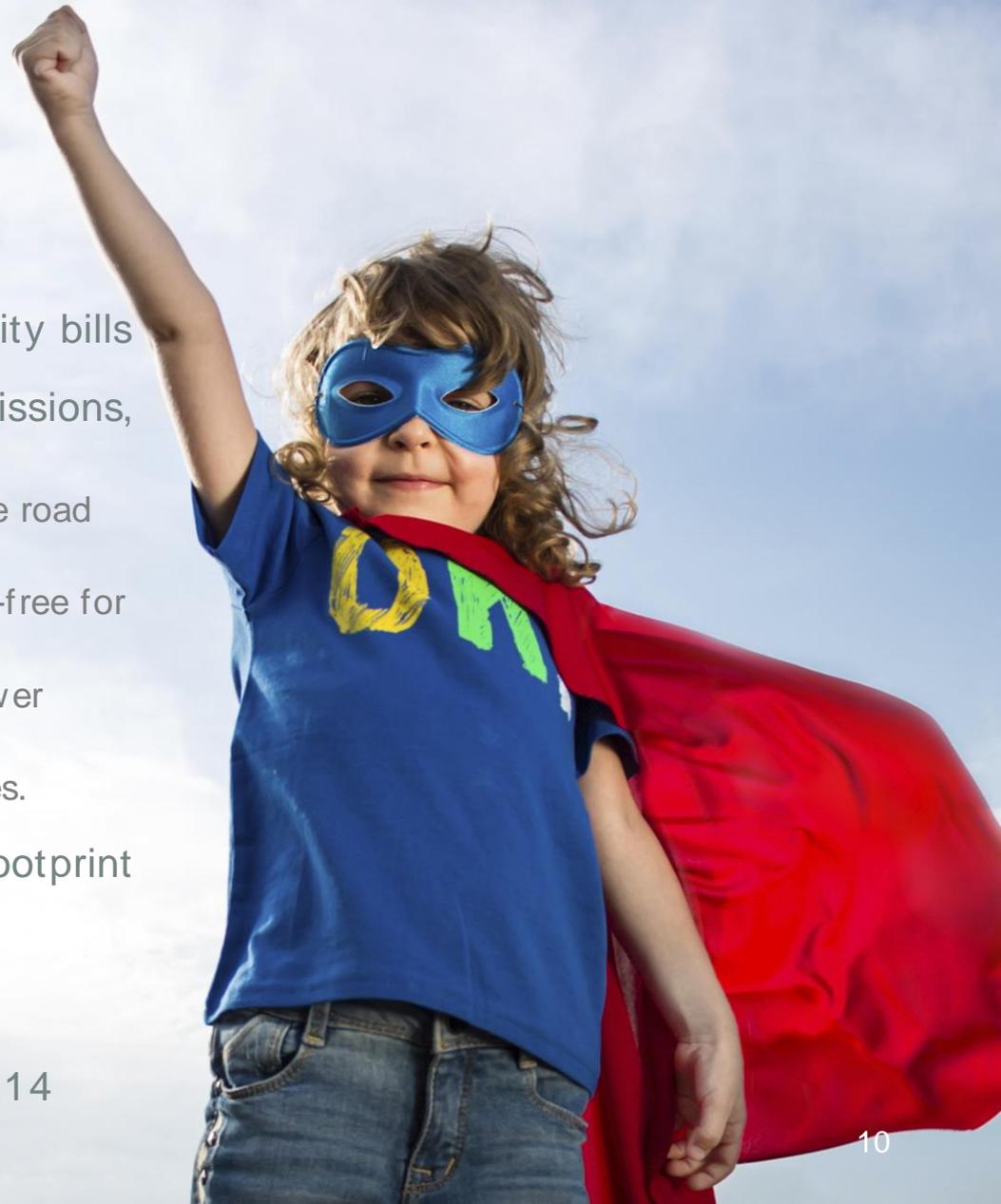
WHO SAYS SAVING ENERGY CAN'T BE FUN?

- Unblock air vents
- Report temperature imbalances
- Skip the space heater
- Report energy waste
- Don't leave PCs running



To date,  
the **ENERGY STAR**  
program has:

- Helped American households and businesses save **\$362 billion** on utility bills
- Avoided **2.5 billion tons** of GHG emissions, equivalent to:
  - Taking all U.S. passenger cars off the road for two years.
  - All U.S. households going emissions-free for two years.
  - Shutting down all U.S. coal-fired power plants for over a year.
  - Installing 600,000 new wind turbines.
- Contributed to a total U.S. carbon footprint **reduction of 9%** since 2005
- Provided more than **\$11 billion in societal benefits** thanks to reduced damages from climate change in 2014 alone



## ENERGY STAR for Buildings & Plants

- Helps American businesses and organizations **reduce operating costs** through energy efficiency in buildings and plants, across all commercial and institutional markets.
- Offers the **only government-backed certification** for independently verified superior energy performance in buildings and plants.
- Offers **proven solutions and a holistic approach** to help building owners and managers reduce energy consumption through:
  - Operations and maintenance improvements
  - Technology upgrades and retrofits
  - Behavioral change



## Why focus on buildings and plants?

- Commercial buildings and industrial facilities generate about **45 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 can be possible with little or no cost.
  - Energy is a controllable cost.
  - Energy is a significant percentage of your operating costs and reduces operating profit.
  - **Any** costs you shift from energy cost improve the bottom line.



# ENERGY STAR® PortfolioManager®

The most-used energy measurement and tracking tool for commercial buildings.



## Use Portfolio Manager to track:

- Energy
- Water
- Waste & Materials

[www.energystar.gov/benchmark](http://www.energystar.gov/benchmark)



→ Accessible in a free, online secure platform:  
[www.energystar.gov/benchmark](http://www.energystar.gov/benchmark)

**A Metrics Calculator** that generates key performance indicators.

- ✓ Energy consumption (source, site, weather normalized, EUI)
- ✓ Water consumption (municipally supplied potable and reclaimed, alternative)
- ✓ Greenhouse gas emissions (indirect, direct, total, avoided)
- ✓ ENERGY STAR 1-to-100 score (available for many building types)

**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!**

# Translate simple information into dozens of performance indicators

## Energy Metrics (Site and Source)

- Total Energy Use (kBtu)
- Energy Use Intensity (EUI) (kBtu/Sq. Ft.)
- Weather Normalized EUI (kBtu/Sq. Ft.)
- National Median EUI (kBtu/Sq. Ft.)
- % Difference from National Median EUI (%)

## Comparisons

- Total Energy Use (kBtu)
- Energy Use Intensity (kBtu/Sq. Ft.)
- Adjusted Energy Use (%)
- GHG Emissions (MtCO<sub>2</sub>e)
- Available against baseline or between any two periods.

## Financial

- Annual Energy Cost
- Total Energy Cost per Sq. Ft.
- Cumulative Investment in Facility Upgrades
- Cumulative Investment per Sq. Ft.

## Renewable Energy

- Total On-Site Electric Generation (kWh)
- Percent of Electricity from On-Site Renewable (%)
- Total Renewable Energy Certificates Purchased and Sold
- Total Avoided Greenhouse Gas Emissions from RECs (MtCO<sub>2</sub>e)

# Benchmarking with ENERGY STAR – the industry standard

**450,000+** properties benchmarking energy use

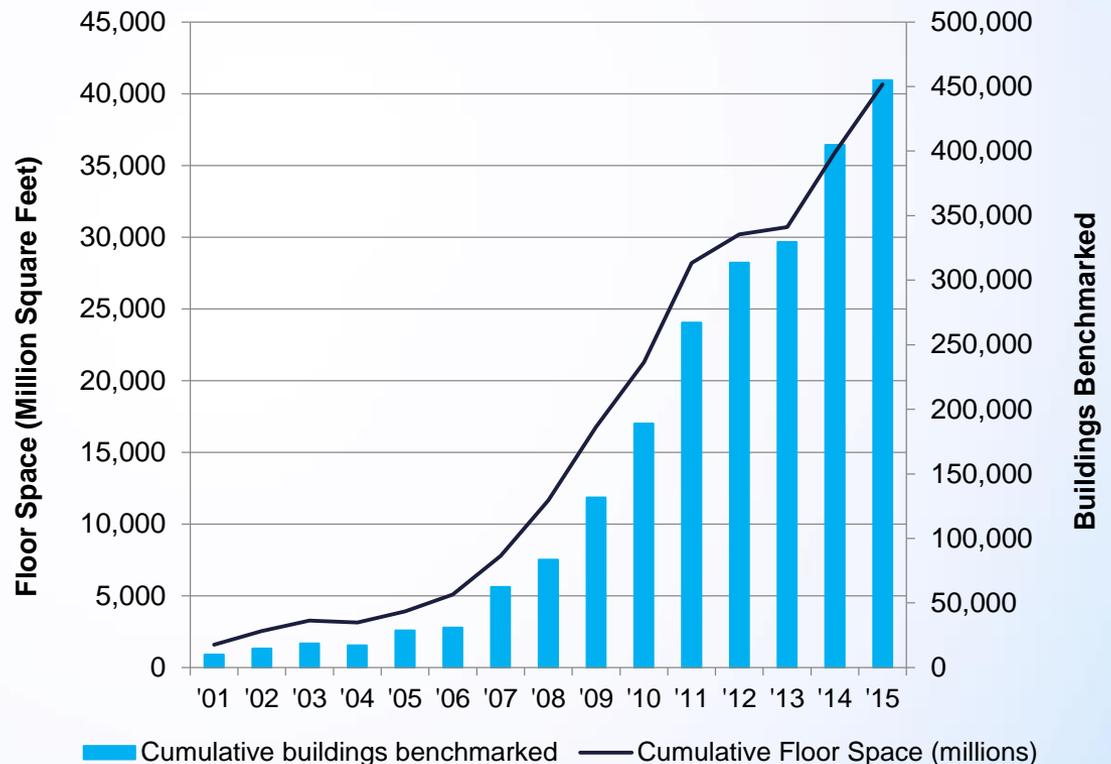
**40%+** of U.S. commercial building space

**110,000+** properties benchmark water use

**200,000+** properties benchmark energy/water using web services

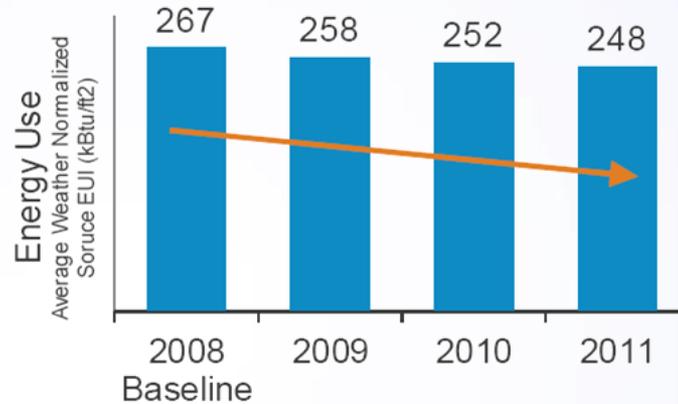
**28,500+** ENERGY STAR certified properties

**Buildings Benchmarked in EPA's Portfolio Manager  
(Cumulative 2001–2015)**

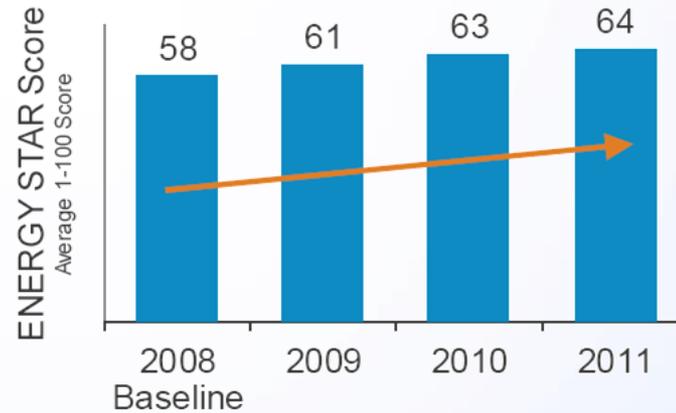


# Value of benchmarking

Consistent benchmarking in buildings results in **energy savings and improved performance.**



**7% Savings**



**6 point increase**



## DataTrends Reports

- National trends
- Sector-specific analyses

[energystar.gov/datatrends](http://energystar.gov/datatrends)

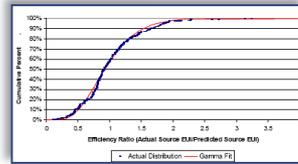


# Calculating EPA's ENERGY STAR 1 – 100 score for a building



## Nationally representative survey

Commercial Building Energy Consumption Survey (CBECS) gathers data on building characteristics and energy use from thousands of U.S. buildings

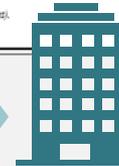


## Data analysis and filtering

EPA analyzes & filters the data to ensure data robustness and quality

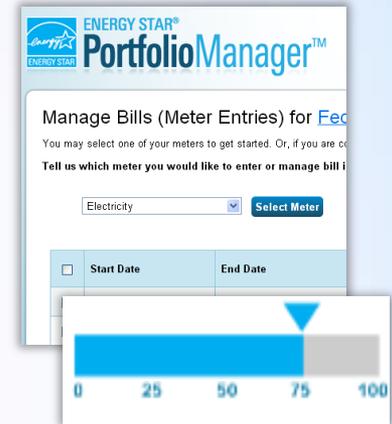
Descriptive Statistics for Variables in Final Regression Model				
Variable	Full Name	Mean	Minimum	Maximum
SrcEUI	Source Energy per Square Foot	198.4	19.62	1139
LNsqFt	Natural Log of Square Foot	9.535	8.517	13.82
PCDns	Number of Computers per 1000 ft <sup>2</sup>	2.231	0.0273	11.11
LNWkHrs	Natural Log of Weekly Operating Hours	3.972	3.611	5.124
LNWkEmp	Natural Log of Number of Workers per 1000 ft <sup>2</sup>	0.5616	-3.882	2.651
HDDxPH	Heating Degree Days x Percent Heated	4411	0.0000	9277
CDDxPC	Cooling Degree Days x Percent Cooled	1157	0.0000	5204

*Note:*  
 - Statistics are computed over the filtered data set (n=490 observations).  
 - Values are weighted by the CBECS variable *ADJWTS*.  
 - The mean values are used to center variables for the regression.



## Statistical model creation

EPA creates a statistical model correlating energy data with the property use details to identify the key drivers of energy use, accounting for weather variations



## ENERGY STAR scoring

Portfolio Manager compares the actual energy data for a building to the modeled estimate to determine where the building ranks relative to its peers

# Building types eligible to receive an ENERGY STAR score

Score based on CBECs data



**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**

Score based on  
other survey data



**Data Centers**



**Hospitals**



**Senior Care  
Communities**



**Wastewater  
Treatment Plants\***



**Multifamily  
Housing**

\*These building types are not eligible for ENERGY STAR certification.

# Use Portfolio Manager to understand comparative performance

- ANY building can be benchmarked
- Benchmarking through Portfolio Manager enables you to:



Compare your building to a **national sample** of similar buildings



Compare your buildings of a similar type to **each other**



**Identify underperformers** in your portfolio and set priorities for the use of limited staff time and/or investment capital

# Monitor building energy, water, and waste performance in a central platform

The screenshot displays the ENERGY STAR Portfolio Manager interface. At the top, it says "Welcome MIKEZATZ" with links for "Account Settings", "Contacts", "Help", and "Sign Out". The main navigation bar includes "MyPortfolio", "Sharing", "Planning", "Reporting", "Recognition", "Admin", and "Processing".

On the left, there are two charts:

- Source EUI Trend (kBtu/ft<sup>2</sup>)**: A line graph showing energy use intensity from 2003 to 2013. The y-axis ranges from 0 to 400. The data points are approximately: 2003: 350, 2005: 320, 2007: 300, 2009: 280, 2011: 100, 2013: 200.
- Total GHG Emissions Trend (Metric Tons CO<sub>2</sub>e)**: A line graph showing greenhouse gas emissions from 2003 to 2013. The y-axis ranges from 0k to 10k. The data points are approximately: 2003: 4k, 2005: 3.5k, 2007: 3k, 2009: 5.5k, 2011: 3k, 2013: 7.5k.

On the right, there is a "Notifications (0)" section with a message: "You have accepted a connection request from Karen Schneider. The connection has been made and will now show in your Contacts list. If needed, you may now share property information with this contact." Below this, it says "You have no new notifications."

Below the notifications is a "Properties (21)" section with an "Add a Property" button. It includes a filter dropdown set to "View All Properties (21)", a search box, and a "Search" button. Below the search is a table of properties:

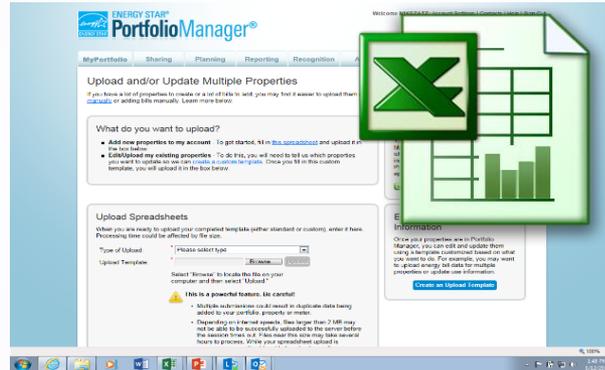
Name	Action
<a href="#">AES - Federal Office (Test)</a>	I want to...
<a href="#">Federal Test DOH Office 25</a>	I want to...
<a href="#">Mike Sample Hospital</a>	I want to...
<a href="#">Mike's London Property</a>	I want to...
<a href="#">Mike's Sample Bldg.</a>	I want to...
<a href="#">Mike's Test DEES Project</a>	I want to...
<a href="#">Mike's Test Design</a>	I want to...
<a href="#">Mike's Test HQW</a>	I want to...
<a href="#">Mike's Test International Property</a>	I want to...

All your performance data, all in one place!

# Choose the data upload method right for your organization



Direct entry via user interface

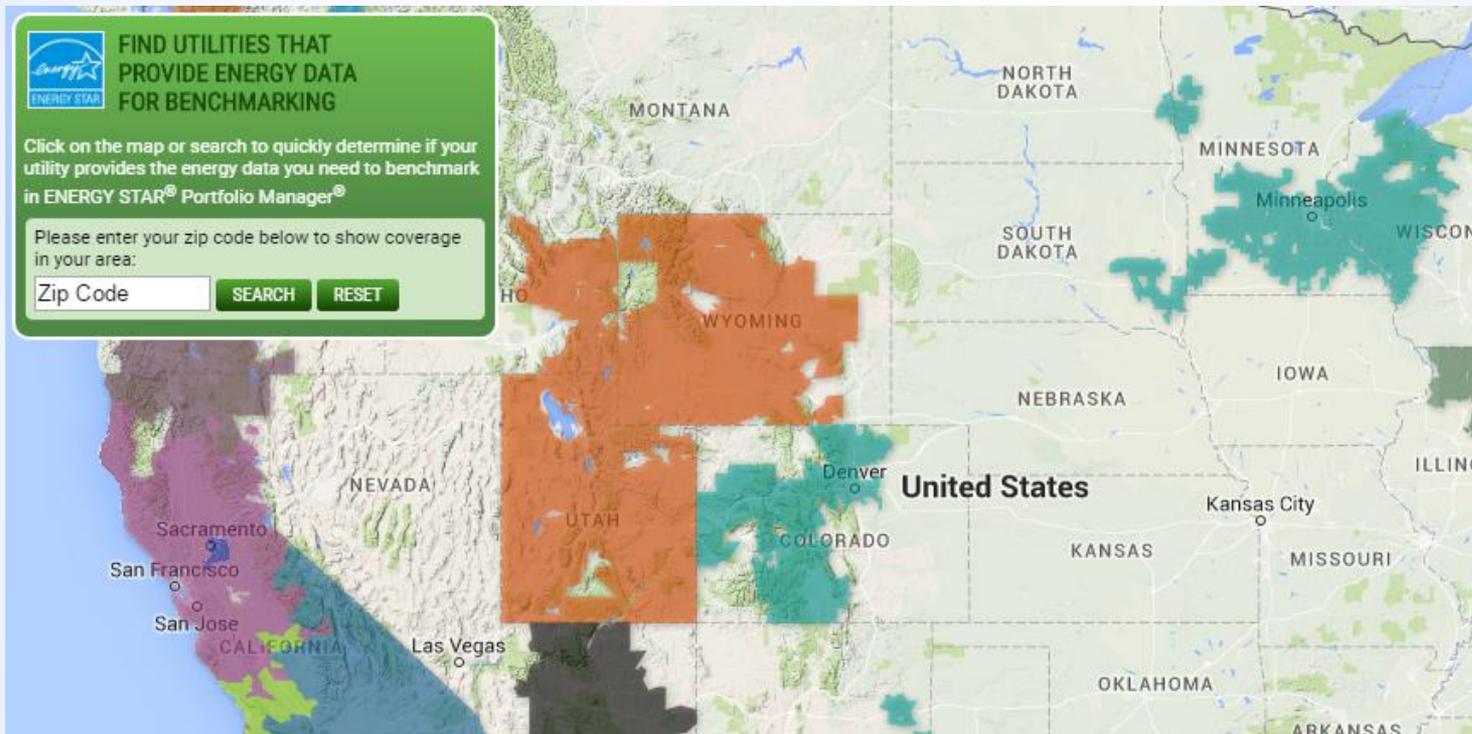


Bulk uploading and updating via spreadsheets



Indirect third-party data uploads via web services

# Does your utility provide the necessary data for benchmarking?



Search by zip code and embed the map on your website

[www.energystar.gov/utilitydata](http://www.energystar.gov/utilitydata)

# Set goals and track progress

MyPortfolio | Sharing | **Planning** | Reporting | Recognition

ENERGY STAR®  
**PortfolioManager®**

### My Properties' Targets & Baselines

Name	Energy Baseline	Water Baseline	Target	Target Met	Action
<a href="#">Federal Building</a>	12/31/2003	09/30/2011	Target ENERGY STAR Score of 80		I want to ...
▶ <a href="#">Higher Campus</a>	Not Available	Not Available	Not Set		I want to ...
<a href="#">Hill Store</a>	07/31/2006	07/31/2006	Target ENERGY STAR Score of 80	✓	I want to ...
<a href="#">Insurance Office</a>	04/30/2007	01/31/2009	Target ENERGY STAR Score of 80		I want to ...
<a href="#">Sunnyside Elementary</a>	08/31/2005	07/31/2006	Target ENERGY STAR Score of 80		I want to ...
<a href="#">Supermarket A-1</a>	Not Available	Not Available	Not Set		I want to ...

Page 1 of 1 View 1 - 7 of 7

Want this information in a report? Use EPA's standard spreadsheet template [portfolio](#).

**Properties with Targets (5)**  
Set One Target for All

**Properties That Have Met Set Targets**

Yes 14%  
No 86%

**Properties with Baselines (5)**  
Set One Baseline for All

**Properties with at Least 12 Months of Information (required for metrics)**

Set performance targets and baselines

Track targets at the portfolio level

Monitor progress and document savings goals achieved

# State and local benchmarking policies and voluntary programs



## Get Started!

### Sign Up and Login:

[energystar.gov/benchmark](http://energystar.gov/benchmark)

### Online Training:

[energystar.gov/Buildings/Training](http://energystar.gov/Buildings/Training)

### Help Portal:

[energystar.gov/BuildingsHelp](http://energystar.gov/BuildingsHelp)

**ENERGY STAR®**  
**PortfolioManager®**

The most-used energy measurement and tracking tool for commercial buildings.

### Use Portfolio Manager

You've heard it before: you can't manage what you don't measure. That's why EPA created ENERGY STAR Portfolio Manager®, an online tool you can use to measure and track energy and water consumption, as well as greenhouse gas emissions. Use it to benchmark the performance of one building or a whole portfolio of buildings, all in a secure online environment.

### Not sure if Portfolio Manager is for you? It is!

You can use Portfolio Manager to manage the energy and water use of any building. Seriously. Any building. K-12 school? Check. Office building? Check. Stadium? Check. We could keep going. All you need are your energy bills and some basic information about your building to get started.

Are you designing a new commercial building? You can also use Portfolio Manager to set your energy use target and see how your estimated design energy stacks up against similar existing buildings nationwide.

**ENERGY STAR®**  
**PortfolioManager®**

**On August 8, Portfolio Manager adds waste tracking!**

Track energy, water, and waste all in one place!

Discover the new and improved Portfolio Manager today.

**SIGN UP**

Current Portfolio Manager Users

username

password

[Forgot password?](#)

[Forgot username?](#)

**LOG IN**

# 16,000



businesses and public sector organizations partner with **ENERGY STAR**





Hines



CBRE



TRANSWESTERN®  
The Performance Advantage in Real Estate



...and 6,000+ organizations partner with ENERGY STAR for Buildings & Plants

[energystar.gov/join](http://energystar.gov/join)

# Get expert help from experienced ENERGY STAR partners!

## ENERGY STAR Service and Product Provider (SPP) partners

- Businesses and organizations that use ENERGY STAR tools and resources to help customers:
  - Benchmark their buildings
  - Achieve energy performance improvements
  - Earn ENERGY STAR recognition
- Experienced with ENERGY STAR
- Searchable on the ENERGY STAR website
- For more information on ENERGY STAR SPPs, visit [energystar.gov/ExpertHelp](http://energystar.gov/ExpertHelp)



## What can ENERGY STAR partnership do for you?

- Position your organization as a “market leader” in energy management and environmental stewardship.
- Support your efforts to increase energy savings and reduce greenhouse gas emissions.
- Increase customer and employee awareness of energy management efforts and achievements.
- Encourage energy savings at work and home for employees and customers.
- Learn more at <https://www.energystar.gov/buildings/about-us/become-energy-star-partner>

# Show your commitment – Partner with ENERGY STAR



<Organization Letterhead>

<Date>

Ms. Jean Lupinacci  
Director, ENERGY STAR Commercial & Industrial Branch  
U.S. Environmental Protection Agency  
1200 Pennsylvania Avenue, NW (6202J)  
Washington, DC 20460

Dear Ms. Lupinacci:

With this letter, <Organization Name> joins ENERGY STAR® as a Partner, and makes a fundamental commitment to protect the environment through the continuous improvement of our energy performance. We believe that an organization-wide energy management approach will help us enhance our financial health and aid in preserving the environment for future generations. In partnership with ENERGY STAR, we will:

- Measure and track the energy performance of our organization's facilities where possible by using tools such as those offered through ENERGY STAR
- Develop and implement a plan consistent with the ENERGY STAR Energy Management Guidelines to achieve energy savings
- Help spread the word about the importance of energy efficiency to our staff and community
- Support the ENERGY STAR Challenge to increase the energy efficiency of America's commerce
- Highlight our achievements with ENERGY STAR

We understand that our commitment to energy efficiency is supported by the ENERGY STAR program. In addition, we understand that we will be recognized as a supporter of the ENERGY STAR program. We will share with EPA our progress and follow all applicable terms and conditions of the ENERGY STAR program, which are registered trade and service marks.

<Organization name> looks forward to

Dear Ms. Lupinacci:

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- Help spread the word about the importance of energy efficiency to our staff and community

# Show off your partnership – get creative (and have fun)

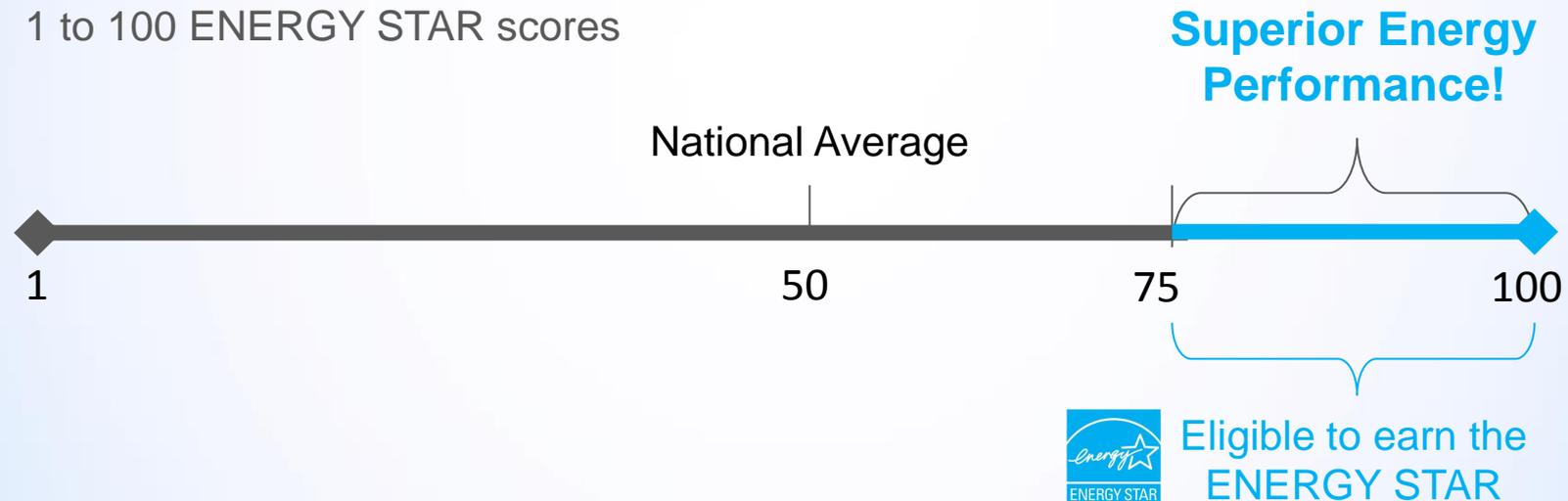


# Recognition Opportunities

# ENERGY STAR certification for existing buildings

- Recognition for superior energy performance – score of 75 or above, as calculated in Portfolio Manager and verified by a Professional Engineer or Registered Architect
- Based on a 12-month period of energy performance
- Buildings can re-apply for certification every 12 months

1 to 100 ENERGY STAR scores

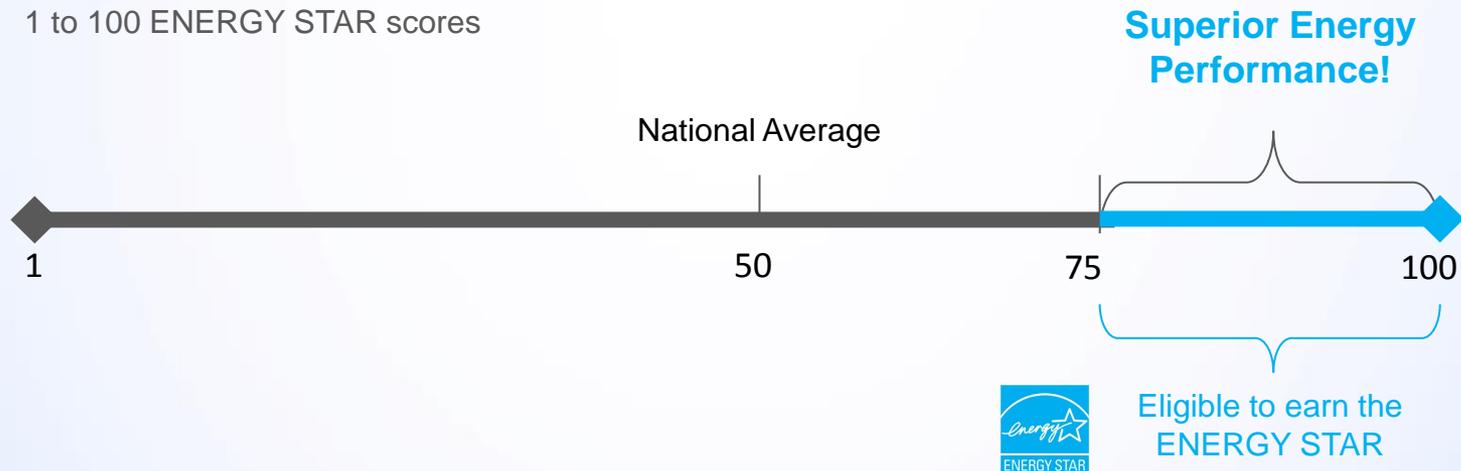


Find certified buildings and plants: [energystar.gov/buildinglist](https://energystar.gov/buildinglist)

# ENERGY STAR certification for industrial plants

- Certification is also available to plants with an ENERGY STAR score of 75 or higher
- Industrial plants do not use Portfolio Manager – scores are based on an industry-specific Energy Performance Indicator (EPI), which measure a plant's energy performance compared to similar plants nationwide

1 to 100 ENERGY STAR scores



Find certified buildings and plants: [energystar.gov/buildinglist](https://energystar.gov/buildinglist)

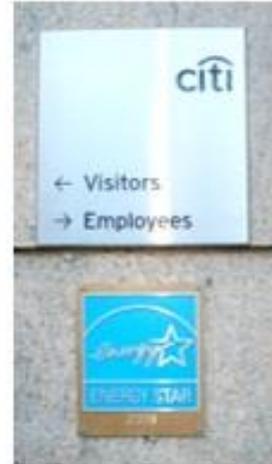
# ENERGY STAR certification for industrial plants

- Industrial plants can earn the ENERGY STAR for superior energy performance!
- 750+ industrial corporations are ENERGY STAR partners
- ENERGY STAR works with specific industries to offer tailored energy-saving guidance and recognition, and to encourage networking and sharing of best practices in each industry:



- Ammonia/fertilizer production
- Cement
- Concrete
- Corn Refining
- Dairy
  - Fluid dairy, ice cream, cheese
- Food processing
  - Frozen fruit & veggies, juice, potato products
- Glass manufacturing
- Metal Casting
  - Iron, investment steel, carbon alloy, aluminum
- Motor Vehicles
  - Assembly, Power Train
- Petroleum Refining
- Pharmaceuticals
- Printing
- Pulp & paper
  - Integrated & pulp mills
- Steel Mills
  - Integrated & mini-mills

# Showcase your certification!



# ENERGY STAR Challenge for Industry

- 1,100+ industrial facilities have taken the **ENERGY STAR Challenge for Industry**, which establishes a goal of 10% improvement in energy intensity within 5 years or less, calculated against an internal baseline
- 380+ sites have achieved this goal!
- It's an opportunity to gain recognition for industry achievements from a highly recognized federal program



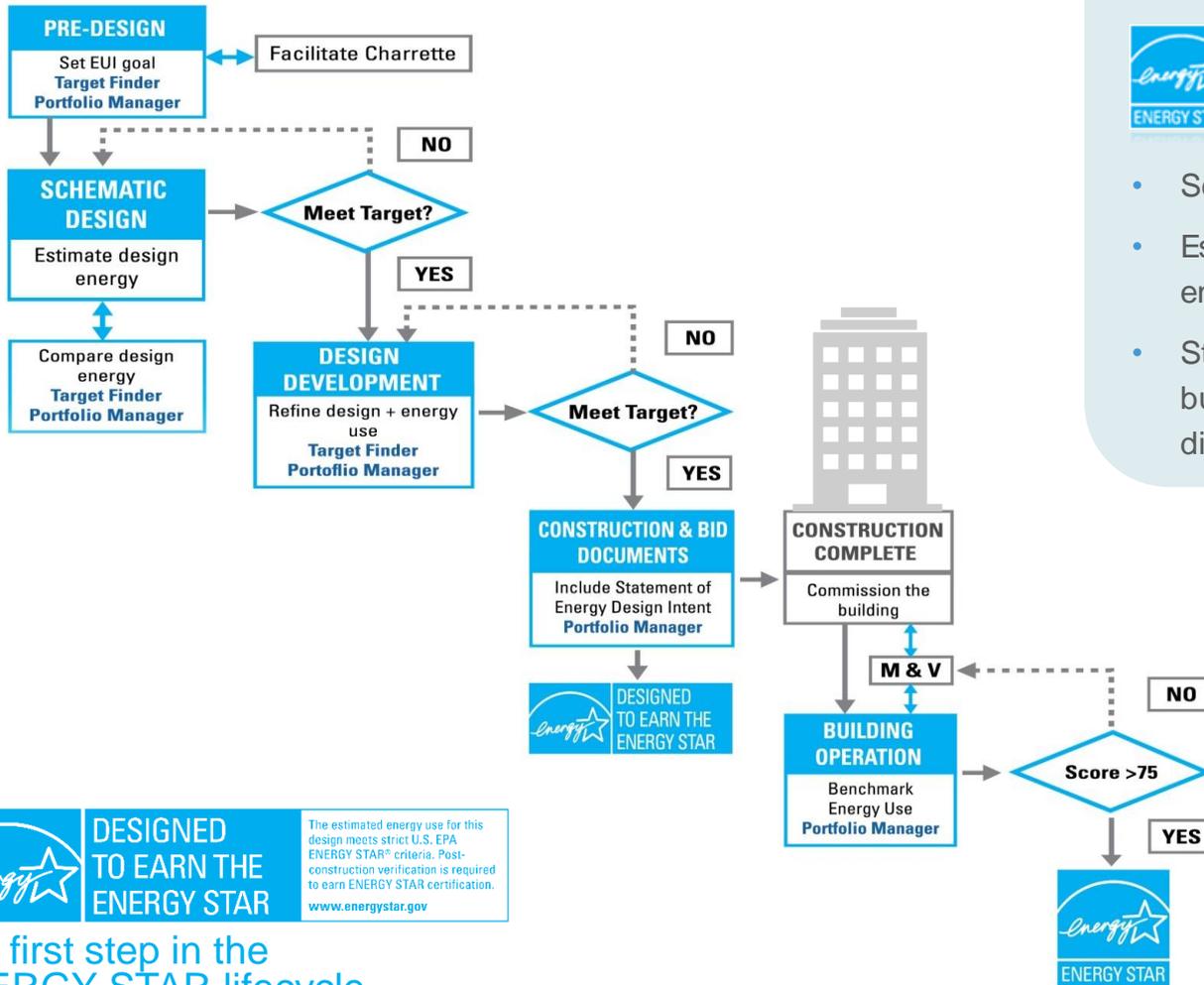
# Recognition for New Commercial Building Construction

## Designed to Earn the ENERGY STAR

- Awarded for building designs entered into Portfolio Manager
- Must receive a score of 75 or higher based on total estimated energy use from energy models
- **Architects:** **Designed to Earn ENERGY STAR** helps you deliver lasting savings to clients, validated by a nationally recognized brand
- **Owners:** **Designed to Earn ENERGY STAR** helps you reap sustained energy savings while avoiding costly redesigns and retrofits



# Recognition for New Commercial Building Construction



- Set performance goals for your project
- Estimate energy performance based on energy modeling data
- Stay ahead of market demands for building efficiency and energy disclosure

You can also use: ENERGY STAR TargetFinder™



The first step in the ENERGY STAR lifecycle



# ENERGY STAR Partner of the Year

Recognizes world-class corporate energy management programs, in categories including:

- Energy management
- Energy efficiency program delivery
- Climate communications
- And more!

[energystar.gov/awards](http://energystar.gov/awards)





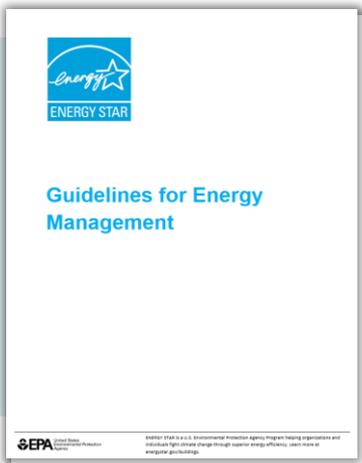
Here are a few additional tools and resources at [energystar.gov](http://energystar.gov)...



# Guidelines for Energy Management

Strategic approach to building and continuously improving your energy management program

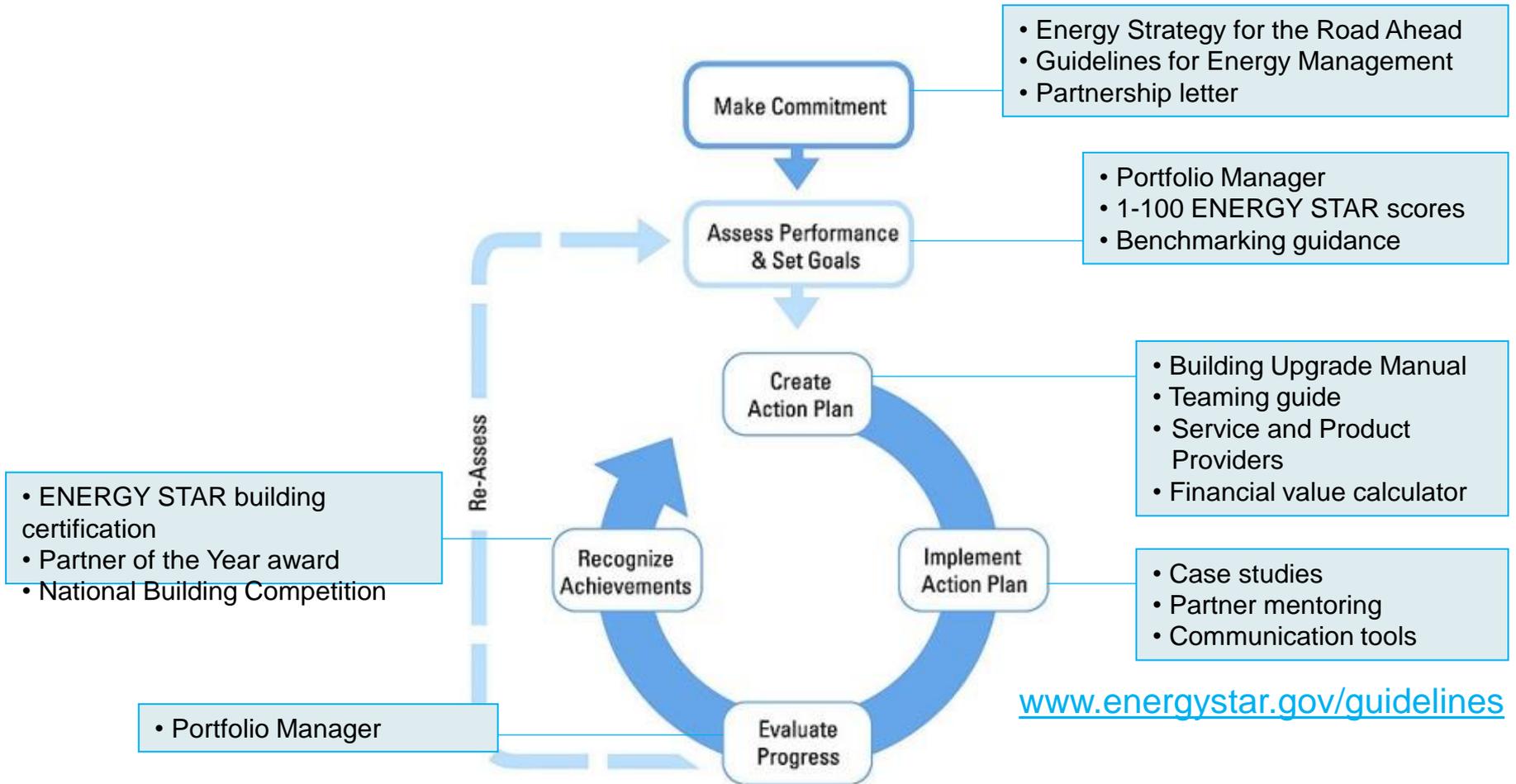
- STEP 1:** Make Commitment
- STEP 2:** Assess Performance
- STEP 3:** Set Goals
- STEP 4:** Create Action Plan
- STEP 5:** Implement Action Plan
- STEP 6:** Evaluate Progress
- STEP 7:** Recognize Achievements



EPA's 43-page guide to continuous energy performance improvement, in seven steps

[energystar.gov/guidelines](http://energystar.gov/guidelines)

# Guidelines for Energy Management



# Technical assistance, training, and guidance

ENERGY STAR® **PortfolioManager™**

Help | [Login](#)  
Language: [English](#) | [Français](#)

MyPortfolio | Sharing | Planning | Reporting | Recognition

### Portfolio Manager Help

- [Learn More about Portfolio Manager](#)  
Get fact sheets, quick reference guides and other information about how the tools works.
- [Take or View a Training](#)  
Sign up for a session or view a recording on a wide variety of topics.
- [Search the Knowledge Base](#)  
Browse or search our Frequently Asked Questions.
- [Ask a Question](#)  
Send a question or comment to our staff.
- [Check the Glossary](#)  
Look up terms used throughout Portfolio Manager.
- [Web Service Documentation](#)  
If you exchange data via web services, check out the documentation or get email updates.

Don't forget, we're out there with you! Network with us and other folks who are using Portfolio Manager.

[Like us on Facebook](#) | [Follow Us on Twitter](#) | [View Our YouTube Channel](#)

#### Technical References

Are you into the math of it all? Learn more about how Portfolio Manager calculates metrics.

- [Source Energy](#)
- [Greenhouse Gas Emissions](#)
- [ENERGY STAR Scale](#)
- For more information on specific property types, like office and school, visit the [ENERGY STAR website](#). These are available in English only.
- [National Median Values](#)
- [Accounting for Climate & Weather](#)
- [Thermal Conversion Factors](#)

[Get more documentation on the ENERGY STAR website.](#)

Follow Us [Twitter](#) [Facebook](#) [YouTube](#) [LinkedIn](#) | [Contact Us](#) | [Privacy Policy](#) | [Browser Requirements](#) | [ENERGY STAR Buildings & Plants Website](#)

- Live and recorded webinars offered regularly
- New 2–5 minute training videos
- Step-by-step training guides, FAQs, and technical reference documents
- On-demand user support

Portfolio Manager 101

ENERGY STAR® **PortfolioManager®**

Portfolio Manager 201

ENERGY STAR® **PortfolioManager®**

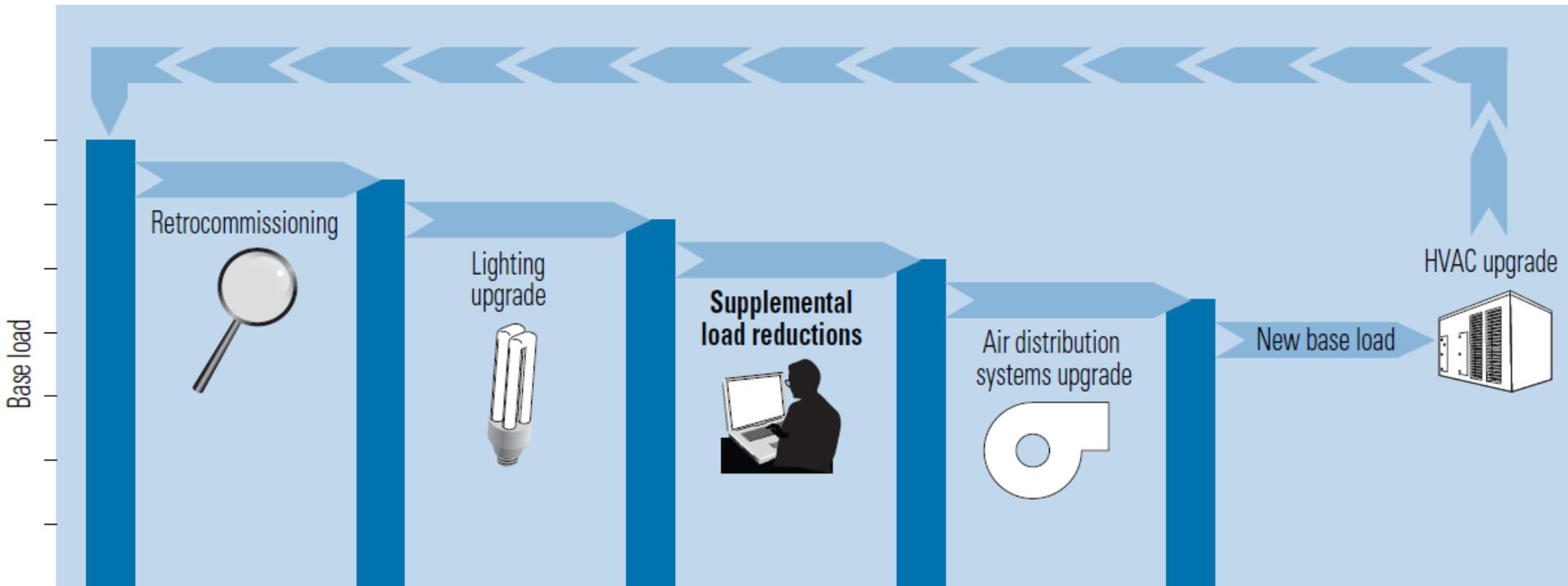
How to Set up Energy and Water Meters in Portfolio Manager

ENERGY STAR® **PortfolioManager®**

[energystar.gov/buildings/training](http://energystar.gov/buildings/training)  
[energystar.gov/buildings/help](http://energystar.gov/buildings/help)

# ENERGY STAR Building Upgrade Manual

- Assists organizations in planning and implementing profitable upgrades
- Includes a five-stage approach that increases the financial and environmental benefits realized:



Stages of an integrated upgrade approach

[energystar.gov/BldgManual](http://energystar.gov/BldgManual)

ENERGY STAR®

# Cash Flow Opportunity Calculator

Know when to finance energy efficiency projects

## Go toe-to-toe with your CFO

- Addresses the “we don’t have the money” objection
- Translates energy savings into “financial speak”

## Answers three questions:

1. How much new energy efficiency equipment can be purchased from the anticipated savings?
2. Should it be financed now, or is it better to wait and use cash from a future budget?
3. Will we lose money by waiting for a lower interest rate?

[energystar.gov/buildings/FinancialEvaluation](https://energystar.gov/buildings/FinancialEvaluation)

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# Building Upgrade Value Calculator

Know the financial impact for owners and tenants

- Evaluates costs and benefits of efficiency investments, for owner and each tenant
- Quantifies expected changes in expense reimbursements under common commercial lease structures
- Directly addresses “split incentive” barrier (who pays/who benefits) of efficiency investment in commercial real estate
- Potentially opens dialogue for landlords and tenants to share savings from capital investments
- Included in BOMA Energy Efficiency Program (BEEP) Course 5, *Building the Business Case*

[energystar.gov/buildings/FinancialEvaluation](http://energystar.gov/buildings/FinancialEvaluation)

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# Financial Value Calculator

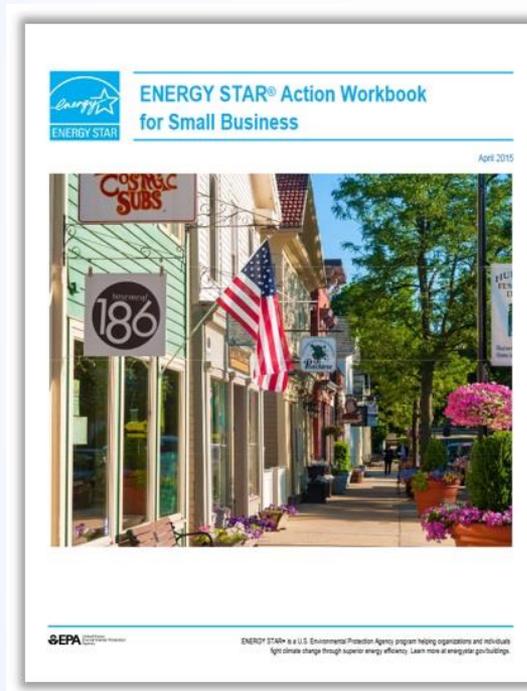
Show how efficiency boosts corporate market value

- Quantifies the value of improvements in energy efficiency to your organization.
- Uses the prevailing price/earnings ratio to estimate the market value of increased earnings that can result from increased energy efficiency.

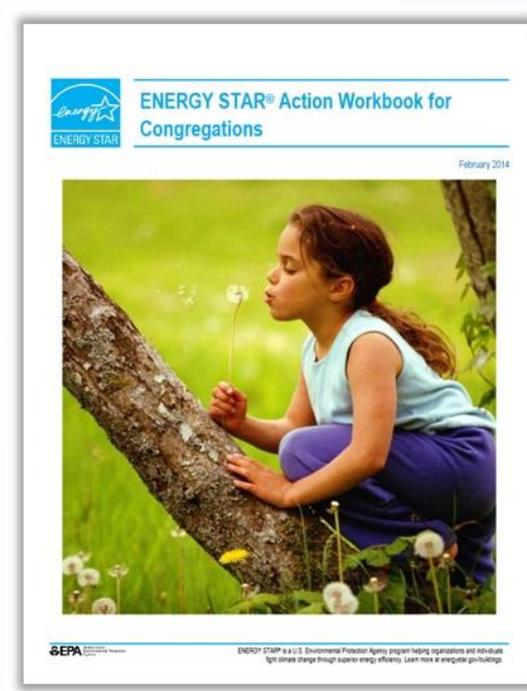
[energystar.gov/buildings/FinancialEvaluation](http://energystar.gov/buildings/FinancialEvaluation)

# Action Workbooks for Congregations and Small Businesses

Planning guides for increasing energy efficiency in small businesses and worship facilities.

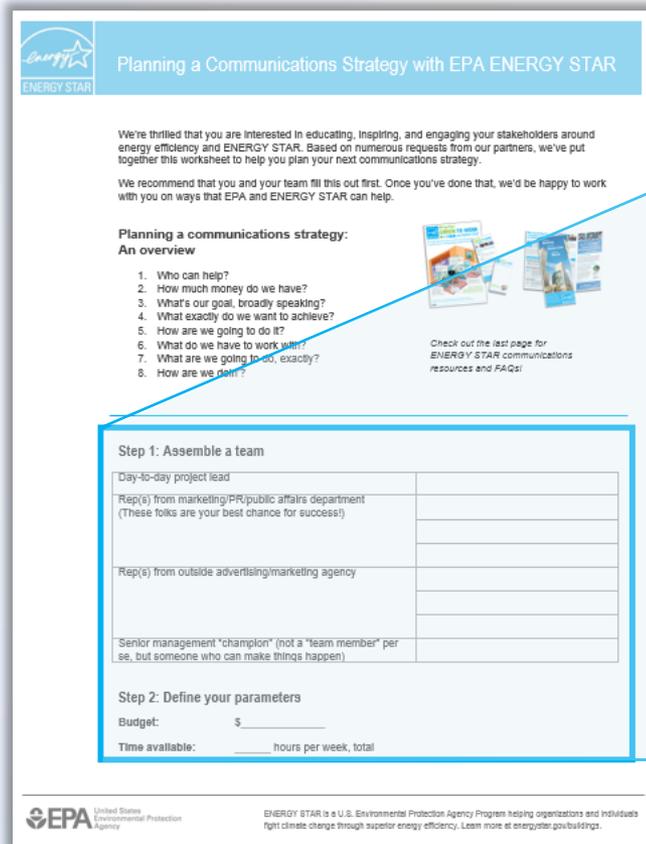


[energystar.gov/smallbiz](http://energystar.gov/smallbiz)



[energystar.gov/congregations](http://energystar.gov/congregations)

# Communications Strategy Planning Guide



Six-page worksheet for planning a communications strategy to engage stakeholders around energy efficiency

**Step 1: Assemble a team**

Day-to-day project lead	
Rep(s) from marketing/PR/public affairs department (These folks are your best chance for success!)	
Rep(s) from outside advertising/marketing agency	
Senior management "champion" (not a "team member" per se, but someone who can make things happen)	

**Step 2: Define your parameters**

Budget: \$ \_\_\_\_\_

Time available: \_\_\_\_\_ hours per week, total

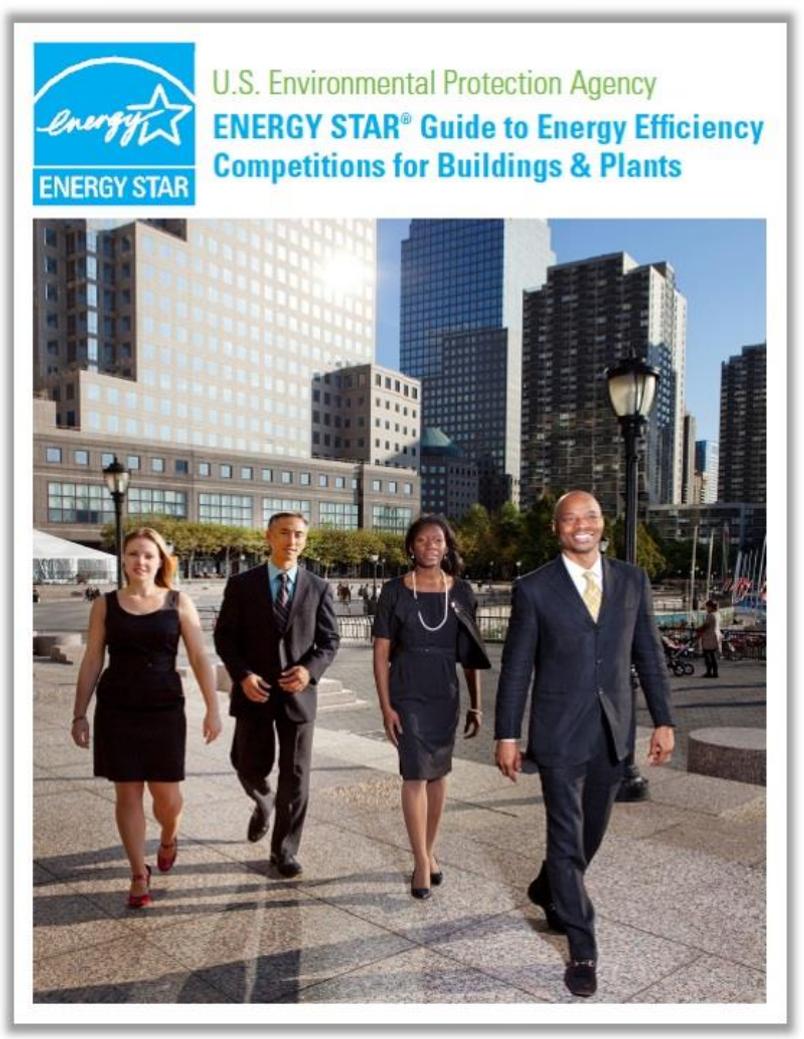
[energystar.gov/buildings/tools-and-resources](http://energystar.gov/buildings/tools-and-resources)

# Launch your own competition!

Step-by-step guidance on how to:

1. Set Goals
2. Define the Playing Field
3. Dedicate Resources
4. Recognize Participants
5. Keep Score
6. Plan the Launch
7. Get the Word Out

[www.energystar.gov/  
competitionguide](http://www.energystar.gov/competitionguide)



# Bring your Green to Work with ENERGY STAR

## Bring Your GREEN TO WORK with ENERGY STAR®

The small steps you take at work to save energy can make a big difference in the fight against global warming.



ENERGY STAR® is a U.S. Environmental Protection Agency program helping businesses and individuals fight global warming through superior energy



## Bring Your GREEN TO WORK with ENERGY STAR®



Learn how you can make many of the same green choices at work as you make at home to save energy and fight global warming with help from EPA's ENERGY STAR program.

- 1 Give It a Rest**  
Use the ENERGY STAR power management settings on your computer and monitor so they go into power save mode when not in use. Also use a power strip as a central "turn off" point when you are using equipment to completely disconnect the power supply.
- 2 Unplug It**  
Unplug electronics such as cell phones and laptops once they are charged. Adapters plugged into outlets use energy even if they are not charging.
- 3 Light Up Your Work Life**  
Replace the light bulb in your desk lamp with an ENERGY STAR qualified bulb. It will last up to 10 times longer and use about 75 percent less energy. Turn off the lights when you leave, especially at the end of the day.
- 4 Let It Flow**  
Keep air vents clear of paper, files, and office supplies. It takes as much as 25 percent more energy to pump air into the workspace if the vents are blocked.
- 5 Team Up**  
Create a Green Team with your co-workers, help build support for energy efficiency in your workplace, and reduce office waste. Set a goal to make your building an ENERGY STAR qualified building.

Learn More at [energystar.gov/work](http://energystar.gov/work)

## ENERGY STAR® Green Team Checklist

One person cannot do it all! So when it comes to making your workplace greener and more energy efficient, nothing beats a team. The Environmental Protection Agency (EPA) has learned from ENERGY STAR partners that forming a green team with coworkers is a great way to help increase energy efficiency and reduce office waste.

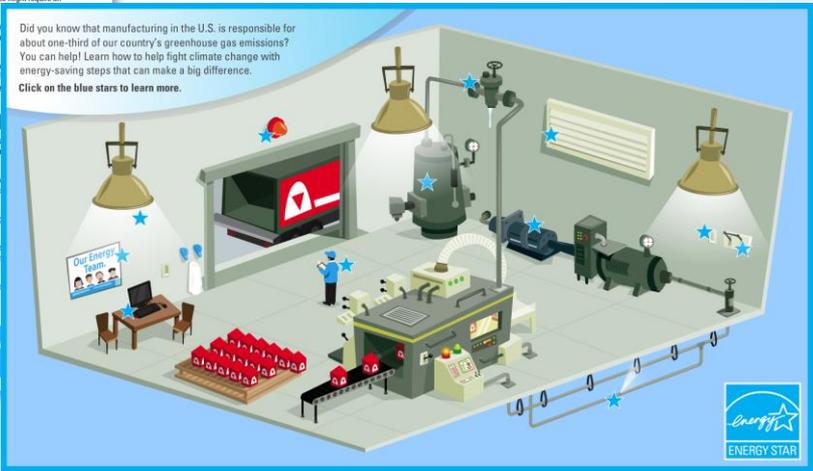
Consider the following checklist of creative ideas from EPA to help your green team get started. Once you've formed your team, start by planting the seeds for success with small changes in individual workspaces. Then move through the list and help success bloom with bigger changes that can affect the whole organization. Together, these actions can help your green team build a better world!

### STEP 1: GET ORGANIZED

- Start Off Right**—Meet with management to get approval and buy-in for the idea of forming a green team. Not only does support from management add legitimacy to your team, some of the measures needed to "green" your workplace might require an investment of time, money, or both by your organization.
- Recruit from A-Z**—Encourage coworkers from different levels and parts of your organization—from interns to facility managers and human resources personnel—to get involved. A team approach improves the organization, which helps to ensure greater support and success.
- Kick It Off**—Organize a kickoff meeting to develop a plan of action—the suggestions below are a great resource as EPA's *Turning Up to Save Energy* guide, which provides step-by-step instructions for many of which apply to green teams too—as well as real-world examples from other businesses and energy-saving, saving money, and fighting global warming.

Did you know that manufacturing in the U.S. is responsible for about one-third of our country's greenhouse gas emissions? You can help! Learn how to help fight climate change with energy-saving steps that can make a big difference.

Click on the blue stars to learn more.



### STEP 2: PLANT THE SEEDS OF SUCCESS

- Spread the Word**—Order copies of the Bring Your Green to Work with ENERGY STAR® tip card and show your coworkers, display the Bring Your Green to Work with ENERGY STAR poster in break rooms or other areas, and link to the ENERGY STAR® web site ([energystar.gov/work](http://energystar.gov/work)).
- Give It a Rest**—Use the ENERGY STAR power management settings on computers and monitors so they go into power save mode when not in use. Also use a power strip as a central "turn off" point when you are using equipment to completely disconnect the power supply.
- Unplug It**—Unplug electronics such as cell phones and laptops once they are charged. Adapters plugged into outlets use energy even if they are not charging.
- Light Up Your Work Life**—Encourage your coworkers to replace the incandescent light bulb in their desk lamp with an ENERGY STAR qualified bulb. It will last up to 10 times longer and use about 75 percent less energy. Turn off the lights when you leave, especially at the end of the day.
- Let It Flow**—Keep air vents clear of paper, files, and office supplies so air can circulate freely. It takes as much as 25 percent more energy to pump air into the workspace if the vents are blocked.

ENERGY STAR® is a U.S. Environmental Protection Agency program helping businesses and individuals fight global warming through superior energy efficiency.



- Animated workplace tools
- Green team checklist
- Posters and tip cards
- Building tour video
- Energy quiz
- Fast facts
- ... and more!

