



Taking Advantage of ENERGY STAR to Improve Facility Energy Management

Brent E Ribble, MEM

US EPA Region 5 (IL, MN, WI, MI, IN, OH)

ribble.brent@epa.gov



What are some of the ENERGY STAR programs and resources we can use here in Southern Illinois?

Why should we use them?

How do we get started?

Commercial

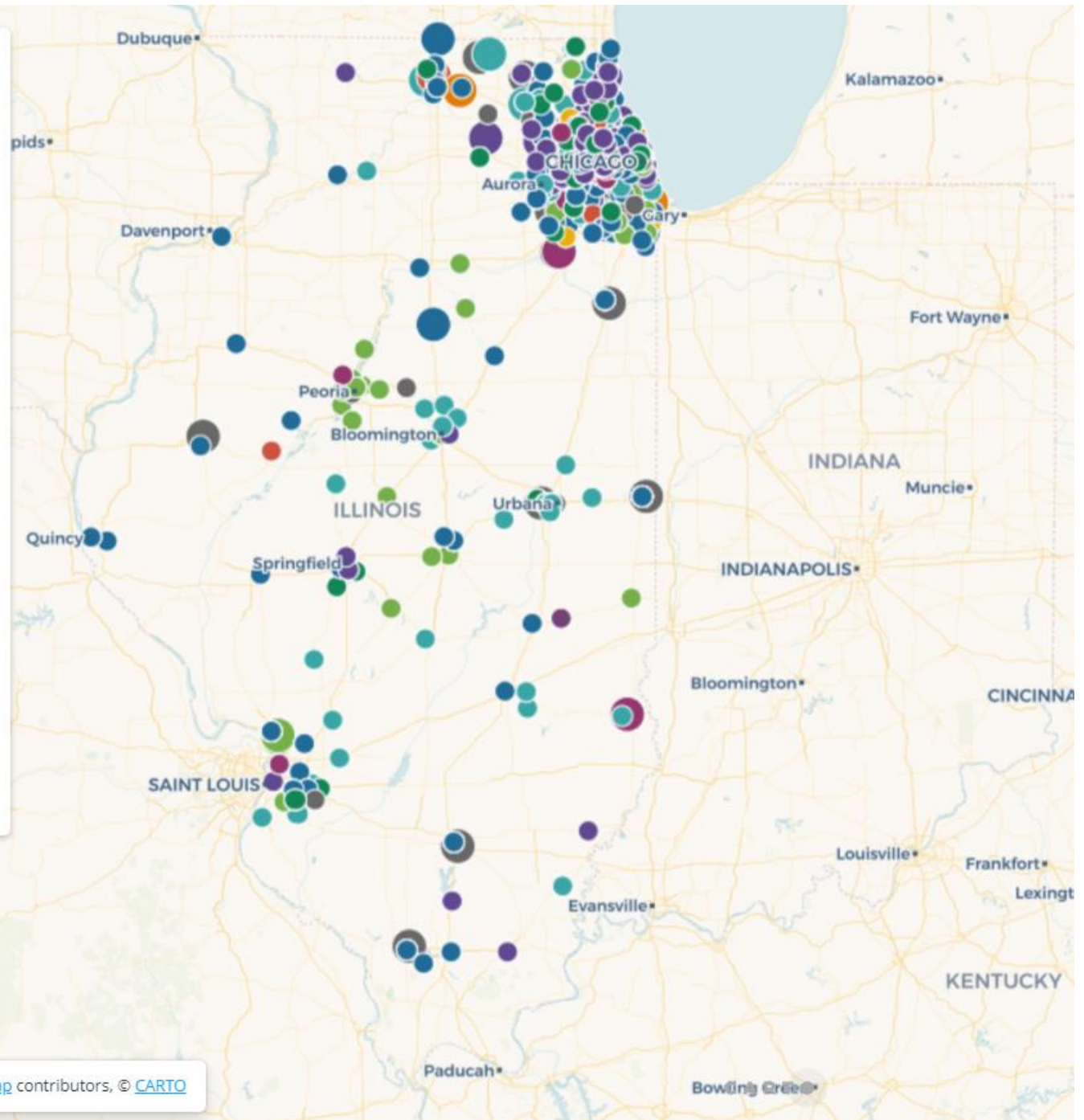
PROPERTY_TYPE

- OFFICE
- RETAIL STORE
- K-12 SCHOOL
- MULTIFAMILY HOUSING
- SUPERMARKET/GROCERY STORE
- NON-REFRIGERATED WAREHOUSE
- HOTEL
- BANK BRANCH
- DISTRIBUTION CENTER
- RESIDENCE HALL/DORMITORY
- OTHERS

Industrial

PLANT TYPES

- CONCRETE MANUFACTURING
- COOKIE AND CRACKER MANUFACTURING
- DAIRY PRODUCT MANUFACTURING
- COMMERCIAL BAKERIES
- COPPER ROLLING/EXTRUDING
- MINING AND QUARRYING
- AUTOMOBILE MANUFACTURING
- CONFECTIONERY MANUFACTURING
- PETROLEUM REFINERIES
- PLASTICS BOTTLE MANUFACTURING
- OTHERS



Springfield*



How sophisticated is your energy program?

Or your customers'/clients' energy programs?



We just pay
the bills.

We have an engaged
team of folks that
makes data-driven
decisions about energy
efficiency and energy
strategy.



PRODUCTS
←

HOMES ↙



Air Seal & Insulate



Home Performance



Heat & Cool Efficiently

Environmental protection and financial value

ENERGY STAR is the simple
choice for saving energy in
buildings and plants

LEARN MORE →

COMMERCIAL & INDUSTRIAL



HOW CAN WE HELP YOU?



WHY CHOOSE ENERGY STAR

About ENERGY STAR for existing
buildings

Facts & stats about commercial
building & facility energy use

Green buildings and ENERGY STAR

Commercial building design

Industrial energy management



BENCHMARK PERFORMANCE

Learn about benchmarking

Use Portfolio Manager

Portfolio Manager quick start guide

Industrial benchmarks

Learn about energy use intensity
(EUI)



TAKE ACTION TO SAVE

Build an energy program

Guidelines for energy management

Save energy in commercial
buildings

Industrial energy guides

Earn recognition

Motivate with a competition

INDUSTRIAL ENERGY MANAGEMENT

Manufacturing is energy intensive. Most manufacturers can improve energy efficiency by managing energy as a controllable cost and focusing on continuous improvement.

INDUSTRIAL ENERGY EFFICIENCY WITH ENERGY STAR

Hundreds of industrial companies use ENERGY STAR resources to improve efficiency, reduce costs, while protecting the environment. Get started with the resources below:

WHAT WE DO



ENERGY STAR assists manufacturers of all sizes to improve energy efficiency and save money in their operations.



CHALLENGE FOR INDUSTRY

Earn recognition for reducing energy intensity by 10% at sites.



INDUSTRIAL FOCUSES

Network with peers in specific industrial sectors and access unique resources.



PLANT CERTIFICATION

Earn the ENERGY STAR for plants with top energy performance.



TREASURE HUNTS

Earn recognition for finding energy savings in your plants.

Benchmark (measure) the energy performance of one or several buildings using ENERGY STAR Portfolio Manager – or help your customers/clients to do so.



ENERGY STAR®

PortfolioManager®



MyPortfolio

Sharing

Planning

Reporting

Recognition

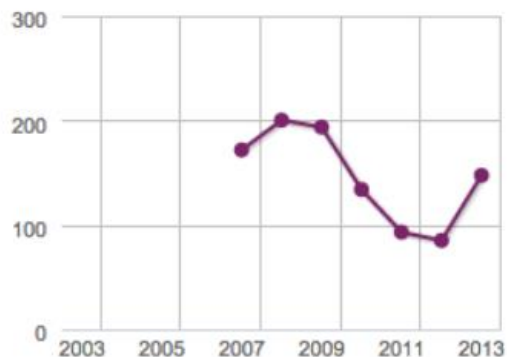
Properties (84)

[Add a Property](#)

Notifications (0)

You have no new notifications.

Source EUI Trend (kBtu/ft²)



Total GHG Emissions Trend (Metric Tons CO₂e)



Properties (84)

[Add a Property](#)

Filter by:

[Create Group](#) | [Manage Groups](#)

Name	Action
1220 Building	<input type="text" value="I want to..."/>
1300 Building	<input type="text" value="I want to..."/>
2200 Building	<input type="text" value="I want to..."/>
2222 Building	<input type="text" value="I want to..."/>
30 North LaSalle Street	<input type="text" value="I want to..."/>
525 West Monroe Street	<input type="text" value="I want to..."/>

Register

- energystar.gov/portfoliomanager

Add a Property

- Year built, gross floor area
- Operating hours, # of computers, # of workers, etc

Add Energy Data

- At least 12 months of electric consumption, gas consumption, etc
 - Can also add water & waste data
- Add manually, via spreadsheet, or via automated upload

Enjoy!

- Energy Use Intensity (EUI), weather-normalized kBtu/ft²
- 1-100 ENERGY STAR Score
- GHG emissions
- Monitor performance over time; Are EE improvements working?
- Compare to other & similar facilities
- Inform goals & decisions
- Earn recognition, including ENERGY STAR Certification (Score 75+)

Register

- energystar.gov/portfoliomanager

Add a Property

- Year built, gross floor area
- Operating hours, # of computers, # of workers, etc

Add Energy Data

- At least 12 months of electric consumption, gas consumption, etc
 - Can also add water & waste data
- Add manually, via spreadsheet, or via automated upload

Enjoy!

- Energy Use Intensity (EUI), weather-normalized kBtu/ft²
- 1-100 ENERGY STAR Score
- GHG emissions
- Monitor performance over time; Are EE improvements working?
- Compare to other & similar facilities
- Inform goals & decisions
- Earn recognition, including ENERGY STAR Certification (Score 75+)

ENERGY STAR Certified Properties in Southern Illinois

A low-hanging opportunity for you or your customers/clients to shine

Property	Location	Year(s) Certified	ENERGY STAR Score(s)
GSA Federal Building	Carbondale	2000, '10, '12	80, 98, 100
Verizon Wireless	Carbondale	2018	90
Kohl's	Mt Vernon	2012	81
Kohl's	Carbondale	2009	81
Sears	Mt Vernon	2011	79
SIH Memorial Hospital	Carbondale	2001 → 2013	89 → 78
JCPenny	Mt Vernon	2009	78
GSA Federal Building	Mt Vernon	2000, 2012	79, 76
Staples	Mt Vernon	2014	76
Staples	Carbondale	2012	75

For benchmarking and ENERGY STAR certification, we recommend:

Commercial &
Institutional



ENERGY STAR
Portfolio
Manager

Industrial &
Manufacturing



ENERGY STAR
Energy
Performance
Indicator (EPI)



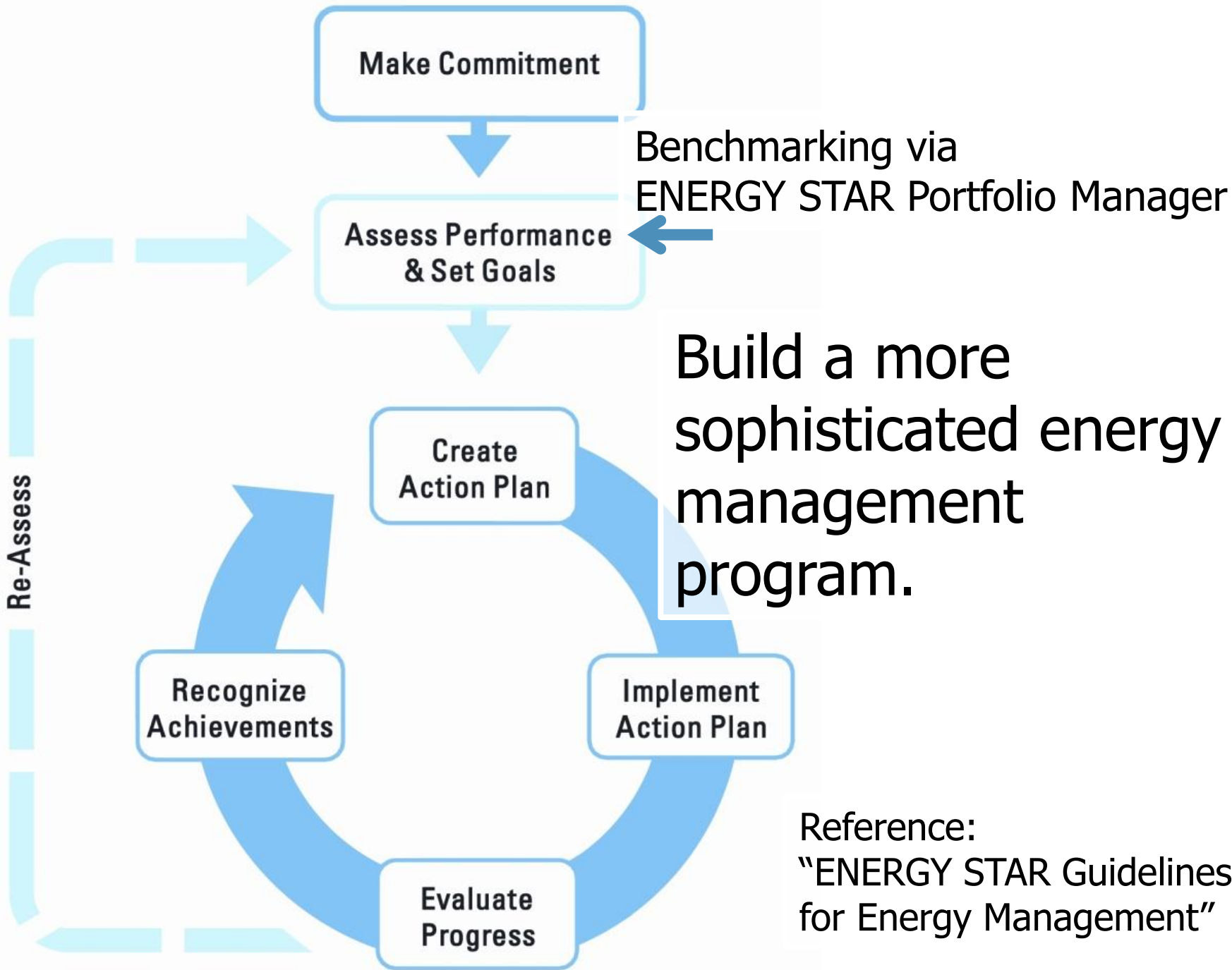
How sophisticated is your energy program?

Or your customers'/clients' energy programs?



We just pay
the bills.

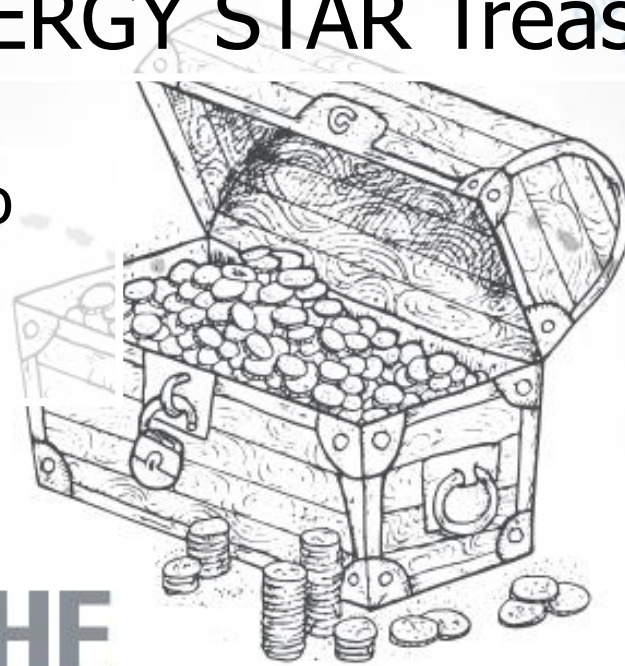
We have an engaged
team of folks that
makes data-driven
decisions about energy
efficiency and energy
strategy.





Conduct an ENERGY STAR Treasure Hunt

A walkabout of your facility to discover quick opportunities for energy savings



FIND THE
TREASURE ~~X~~
IN YOUR FACILITY

energystar.gov/treasurehunt





U.S. Environmental Protection Agency

Energy Treasure Hunt Guide: Simple Steps to Finding Energy Savings

JANUARY 2014



HVAC

- Identify and make plans to address instances of simultaneous heating and cooling.
- Ensure that thermostats and outside air temperature sensors are properly calibrated/maintained.
- Ensure that thermostats are set to appropriate temperatures based on season and local weather conditions.
- Ensure that thermostats are properly located to be representative of the room or zone for which the temperature is being controlled.
- Ensure that electronics are located away from thermostats.
- Identify where locking covers for thermostats and ventilation controls can be installed to prevent unauthorized adjustments.
- Confirm proper implementation of a temperature setback policy for heating/cooling when the building is unoccupied (including any special considerations for summer months).



Name: Amcor
Type: Pharmaceutical, food, and home-care products packaging supplier
Potential Savings: 2020: 5%
[More >](#)



Name: Colgate-Palmolive
Type: Consumer products
Potential Savings: 2020: 5%; 2019: 9.6%, 3.4%, 6.8%...
[More >](#)



Name: Sherwood Cass R-VIII School District
Type: High School
[More >](#)



Name: Allergan
Type: Pharmaceutical manufacturing company
Potential Savings: 21%, 50%
[More >](#)



Name: Columbia Association
Type: Property management organization
Total Treasure Hunts: 2020: 1; 2019: 1
[More >](#)



Name: The Boeing Company
Type: Aircraft, satellite, and telecommunications manufacturing
Potential Savings: 2020: 10%; 2019: 6.3%, 7.3%, 7.4%, 10.4%, 17.9%,...
[More >](#)



Name: Kilroy Realty Corporation
Type: Real Estate Investment Trust
Potential Savings: \$20,300
[More >](#)



Name: Lockheed Martin
Type: Aerospace, defense, and advanced technologies
Potential Savings: 12%, 5%, 17%, 3%, 19%, 5%
[More >](#)



Sign Up for the *Challenge for Industry*



IMPROVING ENERGY EFFICIENCY 10% AT A TIME

The ENERGY STAR Challenge for Industry is a global call-to-action for industrial sites to reduce their energy intensity by 10 percent within 5 years. Any industrial site can participate, and those that achieve this goal will earn EPA recognition.

Learn more about [eligibility](#), [participation](#), and [recognition](#).



**Reduce energy 10%
within 5 years.**

Plant	Location	Years	Achievement
Continental Tire	Mt Vernon	2019 →	TBD
		2018 →	TBD
Intertape Polymer Corporation	Carbondale	2016 → 2018	↓ 11.8%
		2013 → 2016	↓ 31.2%
		2010 → 2013	↓ 44.9%
		2009 → 2010	↓ 29.1%

INDUSTRIAL ENERGY MANAGEMENT

Manufacturing is energy intensive. Most manufacturers can improve energy efficiency by managing energy as a controllable cost and focusing on continuous improvement.

INDUSTRIAL ENERGY EFFICIENCY WITH ENERGY STAR

Hundreds of industrial companies use ENERGY STAR resources to improve efficiency, reduce costs, while protecting the environment. Get started with the resources below:

WHAT WE DO



ENERGY STAR assists manufacturers of all sizes to improve energy efficiency and save money in their operations.



CHALLENGE FOR INDUSTRY

Earn recognition for reducing energy intensity by 10% at sites.



INDUSTRIAL FOCUSES

Network with peers in specific industrial sectors and access unique resources.



PLANT CERTIFICATION

Earn the ENERGY STAR for plants with top energy performance.



TREASURE HUNTS

Earn recognition for finding energy savings in your plants.



Aerospace and
Defense



Aluminum
Casting



Asphalt Paving
Manufacturing



Baking



Cement
Manufacturing



Corn
Refining



Dairy
Processing



Distilled Spirits
Manufacturing



Fertilizer
Manufacturing



How do we get started? – 3 things:

1. Sign up for ENERGY STAR newsletter.
2. Set aside 30 minutes to click through the ENERGY STAR website. It's loaded with resources.
3. Grab 12 months of energy data and give Portfolio Manager a try.



Home » Commercial Buildings

Environmental protection and financial value
ENERGY STAR is the simple choice for saving energy in buildings and plants
[LEARN MORE →](#)

ENERGY STAR® TenantSpace™ **NEW**

HOW CAN WE HELP YOU?

WHY CHOOSE ENERGY STAR
About ENERGY STAR for existing buildings
Facts & stats about commercial building & facility energy use

BENCHMARK PERFORMANCE
Learn about benchmarking
Use Portfolio Manager
Portfolio Manager quick start guide

TAKE ACTION TO SAVE
Build an energy program
Guidelines for energy management
Save energy in commercial buildings

ENERGY STAR® PortfolioManager®
EPA's online energy management and tracking tool enables you to measure and track the energy and water performance of any building over time.
[Register now](#)





TOOLS AND RESOURCES

< 1 2 3 >



BUILDINGS HELP DESK

Browse FAQs, explore topics, or submit your question directly to experts at EPA's ENERGY STAR... [read more](#)



LICENSED PROFESSIONAL FINDER TOOL

Use this tool to find and contact Licensed Professionals who have experience verifying properties... [read more](#)



PORTFOLIO MANAGER DATA COLLECTION WORKSHEET

You can use this tool to lookup the data needed to benchmark your property in Portfolio Manager... [read more](#)



PORTFOLIO MANAGER QUICK START GUIDE

Follow the steps in this two-page guide to get started using the new Portfolio Manager to benchmark... [read more](#)

[See all tools and resources >](#)

ENERGY STAR CERTIFIED BUILDINGS

< 1 2 3 >



TRI-CITIES HIGH SCHOOL

Energy-efficient upgrades and low-cost improvements helped Tri-Cities High School earn the ENERGY STAR six times.



75 STATE STREET

The 75 State Street property team knows the importance of achieving superior energy performance and has implemented strategies that helped the



property earn the ENERGY STAR.

impr
for re

[See all ENERGY STAR certified buildings >](#)

EMAIL

JOIN MAILING LIST



Sign up to receive updates from ENERGY STAR BUILDINGS & PLANTS on Portfolio Manager and program news.

[SIGN UP](#)





How do we get started? – 3 things:

1. Sign up for ENERGY STAR newsletter.
2. Set aside 30 minutes to click through the ENERGY STAR website. It's loaded with resources.
3. Grab 12 months of energy data and give Portfolio Manager a try.

[ABOUT](#)[FOR PARTNERS](#)[Find Products](#)[Save at Home](#)[New Homes](#)[Commercial Buildings](#)[Industrial Plants](#)

[Home](#) » [Commercial Buildings](#) » [Energy Program Assessment Matrix](#)

Energy Program Assessment Matrix

[< Back to search results](#)

Last updated: 09-09-2016

Use this spreadsheet to compare your energy management practices to the best practices outlined in EPA's ENERGY STAR Guidelines for Energy Management. This matrix will help you ensure multiple buildings implement a consistent program. The matrix walks you through each recommended guideline so you can establish and implement an effective energy management program across your organization.

[Download the Energy Program Assessment Matrix as an Excel file here.](#) (EXCEL, 192 KB)

Topic: [Energy management guidance](#)



How do we get started? – 3 things:

1. Sign up for ENERGY STAR newsletter.
2. Set aside 30 minutes to click through the ENERGY STAR website. It's loaded with resources.
3. Grab 12 months of energy data and give Portfolio Manager a try.



How do we get started? – 1 more thing:

4. Have a follow up chat with us!
We want to help you.

ribble.brent@epa.gov