



# Benchmarking with ENERGY STAR

Alyssa Quarforth  
ENERGY STAR Program Manager,  
Commercial Properties  
US EPA

# Agenda

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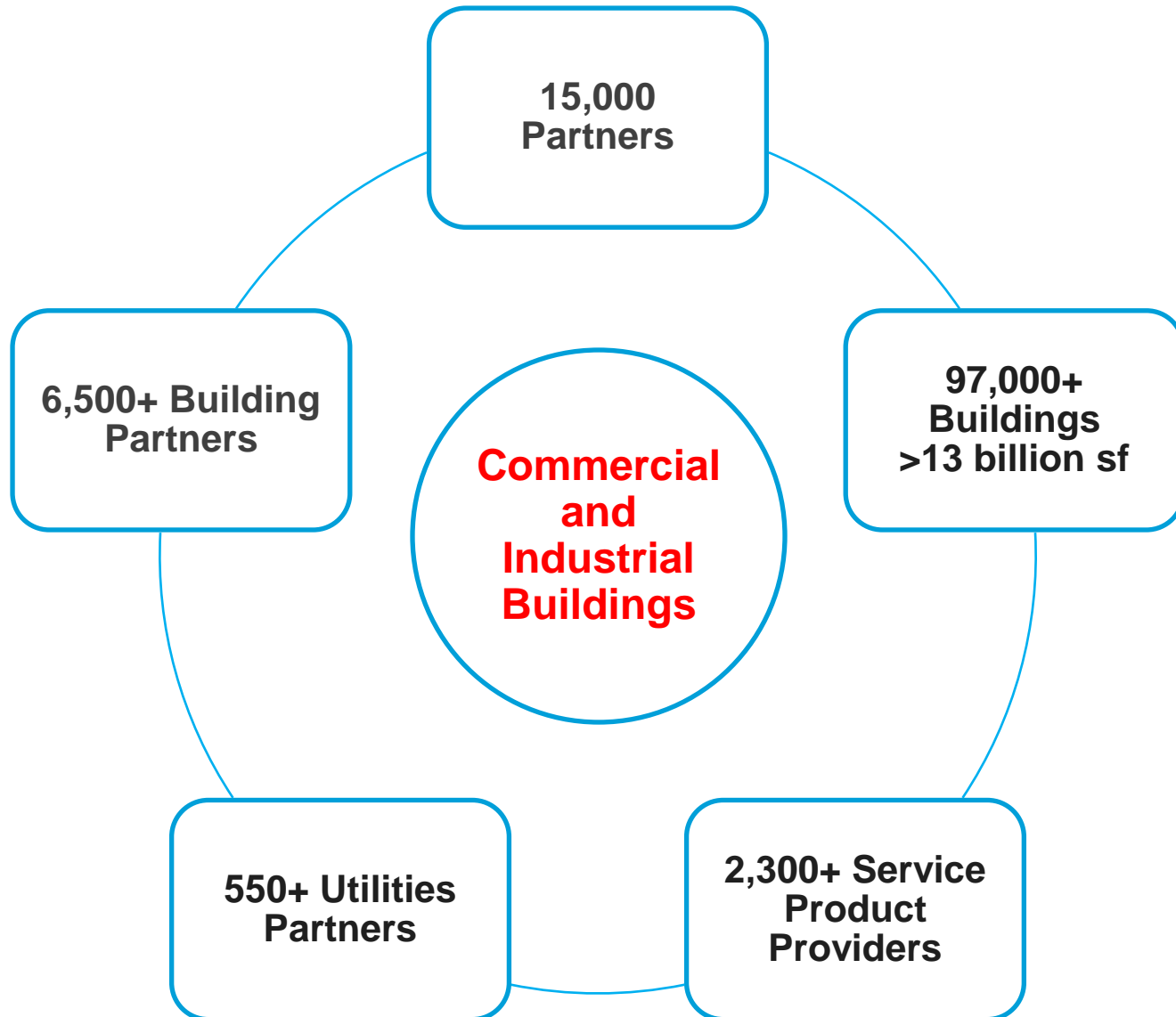


- ENERGY STAR overview
- Benchmarking with ENERGY STAR
  - Identifying energy efficiency projects
  - Tracking progress
  - Documenting results
- Additional Capabilities
- Take-aways

# ENERGY STAR is... Homes, Buildings, Products



# ENERGY STAR for Buildings



# Partnering with ENERGY STAR



- Go to <http://www.energystar.gov/join>
- Download and complete the Partnership Letter



SIMON™



LARAMAR  
People. Properties. Potential.

AIMCO



FORESTCITY  
ENTERPRISES



AMERICAN  
REALTY ADVISORS  
*Institutional Real Estate Investment Management*



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# Portfolio Manager



- Free, online benchmarking tool
- **The** industry standard in commercial real estate
- Track changes in energy, water, GHG emissions over time within a single building or entire portfolio
- Understood and used by many owners, management companies, local governments, potential buyers and lenders

A screenshot of the Portfolio Manager website interface. The header includes the Energy Star logo, the title "PORTFOLIO MANAGER", and a description: "EPA's system for helping you track and improve energy efficiency across your entire portfolio of buildings." Navigation links for "FAQ FREQUENTLY ASKED QUESTIONS", "CONTACT US", and "HELP" are visible. The main content area is titled "WHAT'S NEW IN PORTFOLIO MANAGER" and features two news items: "New! Water Treatment and Distribution Facilities" and "New! Portfolio Manager Enhancements (Spaces Not Eligible to Receive a Rating)". On the right side, there is a login section with fields for "Username:" and "Password:", each with a "Forgot your username?" or "Forgot Your Password?" link, and a "Login" button. Below the login fields are links for "New User? Register".

**PORTFOLIO MANAGER**  
EPA's system for helping you track and improve energy efficiency across your entire portfolio of buildings.

**WHAT'S NEW IN PORTFOLIO MANAGER**

**New! Water Treatment and Distribution Facilities**  
The EPA is pleased to announce the addition of Water Treatment and Distribution Facilities to Portfolio Manager. Water Utilities will now be able to track and improve energy consumption and emissions by entering and managing data in Portfolio Manager. [Learn More](#)

**New! Portfolio Manager Enhancements (Spaces Not Eligible to Receive a Rating)**  
Portfolio Manager now provides users the ability to manage buildings that are eligible to receive a rating as well as those that are not – all within the same online platform. [Learn More](#)

Username:   
[Forgot your username?](#)

Password:   
[Forgot Your Password?](#)

[New User? Register](#)



# Basic Data Inputs



## General

Address

## Space

Gross  
floor area

## Energy & Water

12  
consecutive  
months

# Set baseline and assess portfolio-wide performance



GROUP:  [Create Group](#) | [View All](#)      VIEW:  [Create View](#) | [Edit View](#) | [View All](#)

[Download](#) in Excel

Search Facility Name:

Results 1 - 9 of 9

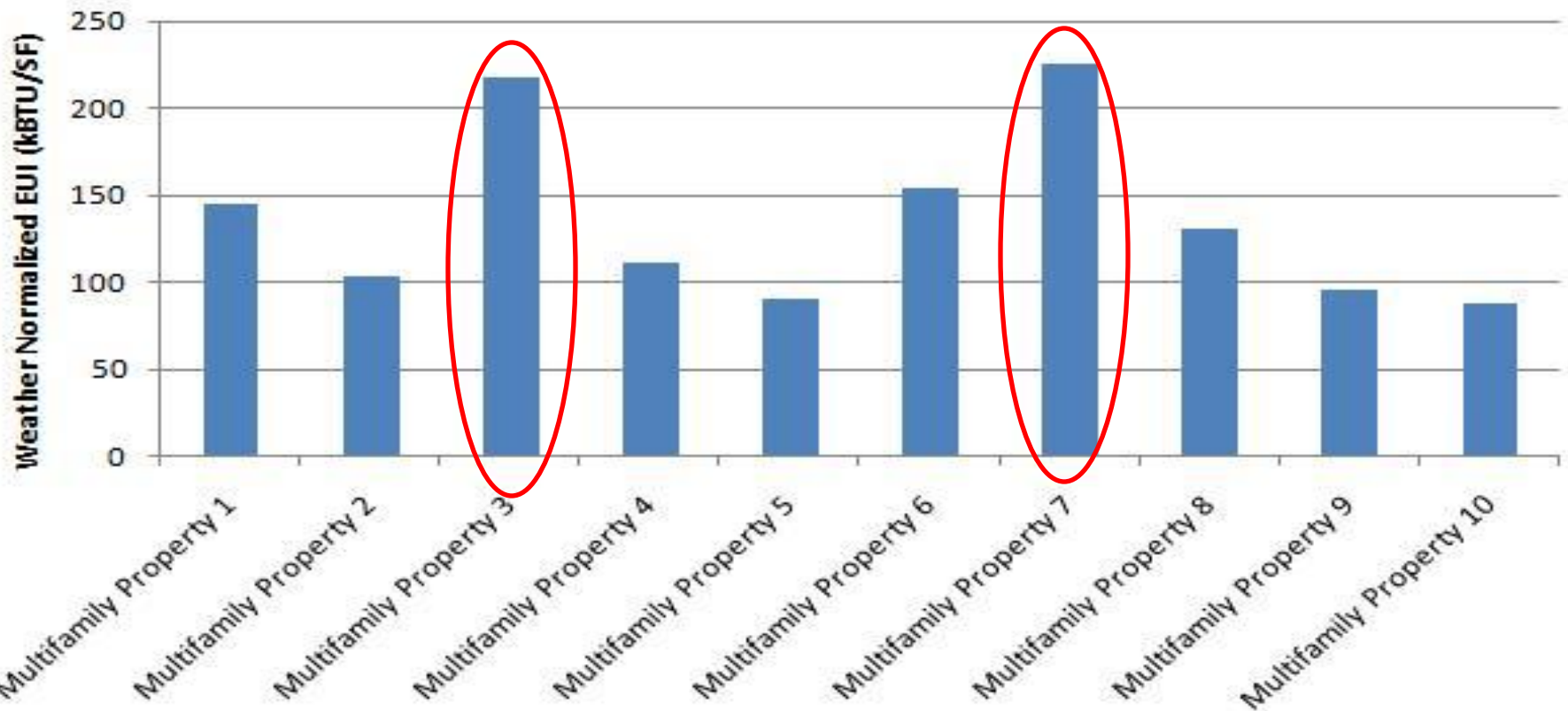
All #ABCDEFGHIJKL **M** NOPQRSTU

Facility Name	Baseline Total Site Energy Use (kBtu)	Current Total Site Energy Use (kBtu)	Change from Baseline: Adjusted Energy Use (%)	Total Energy Cost per Sq. Ft. (US Dollars (\$))	Change from Baseline: Adjusted Energy Use Intensity (kBtu/Sq. Ft.)	Change from Baseline: Emissions (MtCO <sub>2</sub> e)
<a href="#">Multifamily Community A</a>	12,161,790.8	12,003,560.65	-1.8	\$0.69	-1.0	-12.40
<a href="#">Multifamily Community B</a>	16,214,110.3	15,939,888.28	-3.3	\$2.69	-5.2	-34.72
<a href="#">Multifamily Community C</a>	11,995,407.8	12,479,514.80	2.1	\$2.29	3.4	63.02

# Identify under performing buildings



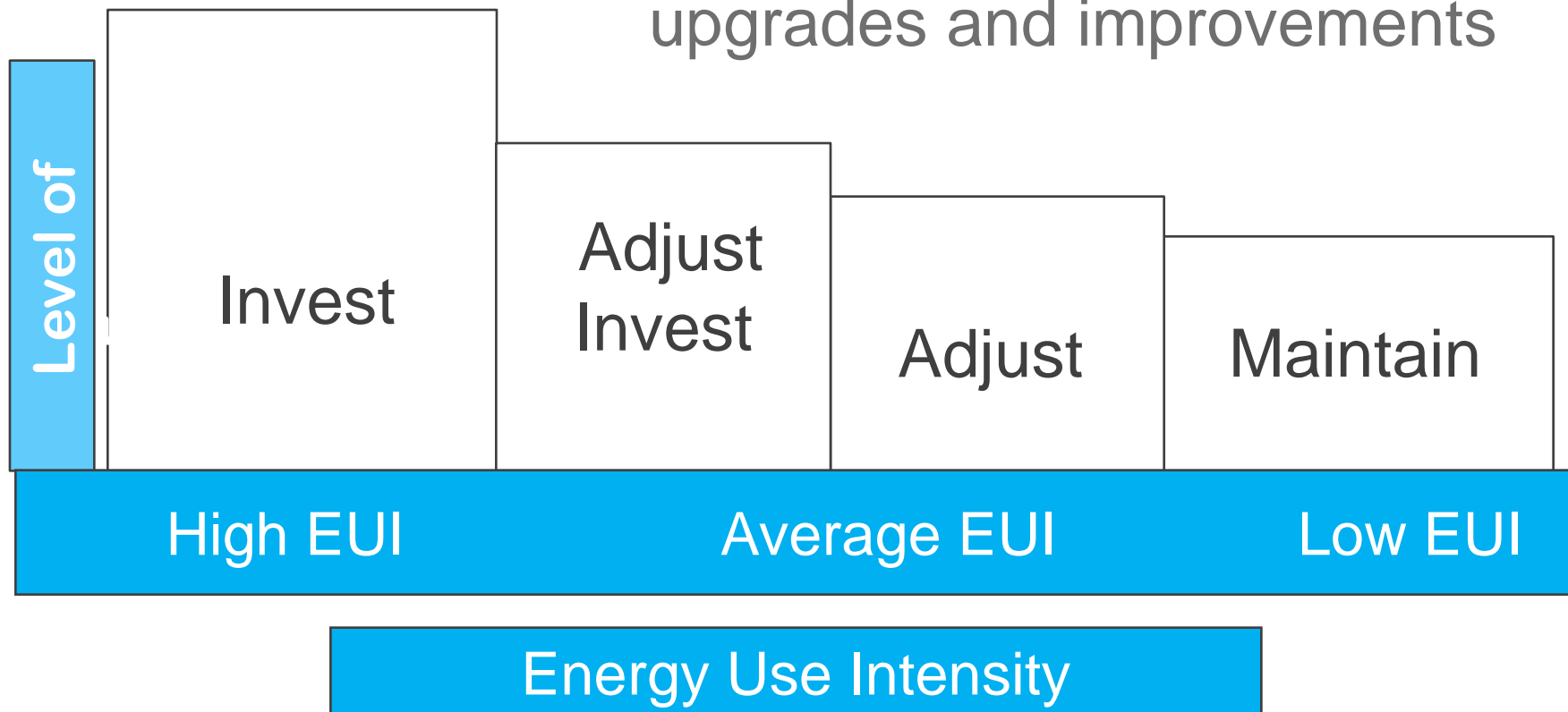
## Multifamily Energy Use Comparison



# Identify appropriate energy efficiency projects



Prioritize portfolio-wide upgrades and improvements





# Track Progress Towards Goal

- Track energy, water, and greenhouse gas *before, during **and** after* implementation of project
- Monitor cost savings over time

Search: All # A B C D E F G H

<u>Current Source Energy Intensity (kBtu/Sq. Ft.)</u>	<u>Change from Baseline Adjusted Energy Use</u>	<u>Change from Baseline: Energy Use Intensity (kBtu/Sq. Ft.)</u>	<u>Change from Baseline: GHG Emissions (MtCO<sub>2</sub>e)</u>	<u>Energy Cost per Sq. (US Dollars (\$))</u>
180.1	-12.3	-6.1	-275.86	\$0.30
172.8	-17.2	-10.7	-488.62	\$0.37

# Verify and Document Results



## STATEMENT OF ENERGY PERFORMANCE Sherri's Multifamily Housing Community

Building ID: 1706669  
For 12-month Period Ending: May 31, 2009<sup>1</sup>  
Date SEP becomes ineligible: N/A

Date S

Facility  
Sherri's Multifamily Housing Community  
100 Main Street  
Annapolis, MD 21403

Facility Owner  
N/A

Primary Contact for this Facility  
N/A

Facility  
Sherri's Multifamily Housing Community  
100 Main Street  
Annapolis, MD 21403

Facility Owner  
N/A

Primary Co  
N/A

Year Built: 1999  
Gross Floor Area (ft<sup>2</sup>): 250,000

Energy Performance Rating<sup>2</sup> (1-100) N/A

### Site Energy Use Summary<sup>3</sup>

Electricity (kBtu)  
Natural Gas (kBtu)<sup>4</sup>  
Total Energy (kBtu)

### Energy Intensity<sup>5</sup>

Site (kBtu/ft<sup>2</sup>/yr)  
Source (kBtu/ft<sup>2</sup>/yr)

Emissions (based on site energy use)  
Greenhouse Gas Emissions (MtCO<sub>2</sub>e/year) 6,032

Electric Distribution Utility  
Baltimore Gas & Electric Co

### National Average Comparison

National Average Site EUI  
National Average Source EUI  
% Difference from National Average Source EUI  
Building Type

Multifamily  
Housing

### General Information

Sherri's Multifamily Housing Community	
Gross Floor Area Excluding Parking: (ft <sup>2</sup> )	250,000
Year Built	1999
For 12-month Evaluation Period Ending Date:	May 31, 2009

### Facility Space Use Summary

Multifamily Community	
Space Type	Multifamily Housing
(ft <sup>2</sup> )	250,000
	250

### Energy Intensity<sup>5</sup>

Site (kBtu/ft<sup>2</sup>/yr) 52  
Source (kBtu/ft<sup>2</sup>/yr) 173

### Emissions (based on site energy use)

Greenhouse Gas Emissions (MtCO<sub>2</sub>e/year) 2,352

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Performance Metrics	Evaluation Periods		Comparisons		
	Current (Ending Date 05/31/2009)	Baseline (Ending Date 12/31/2007)	Rating of 75	Target	National Average
Energy Performance Rating	N/A	N/A	75	N/A	N/A
Energy Intensity					
Site (kBtu/ft <sup>2</sup> )	158	98	0	N/A	N/A
Source (kBtu/ft <sup>2</sup> )	529	319	0	N/A	N/A
Energy Cost					
\$/year	\$ 1,160,800.00	\$ 699,200.00	N/A	N/A	N/A
\$/ft <sup>2</sup> /year	\$ 4.64	\$ 2.80	N/A	N/A	N/A
Greenhouse Gas Emissions					
MtCO <sub>2</sub> e/year	6,032	3,638	0	N/A	N/A
kgCO <sub>2</sub> e/ft <sup>2</sup> /year	24	15	0	N/A	N/A



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# Grouping Feature

- Allows user to sort properties to create different comparisons. For example:
  - Metering Scenarios
  - Market rate vs Subsidized properties
  - Management Company
  - Building Type



# More Advanced Features



- Export data to Excel
- Update multiple meters at once
- Share building data
  - Set different access levels

Find out more by reading the  
*ENERGY STAR Benchmarking Starter Kit*

[http://www.energystar.gov/index.cfm?c=comm\\_real\\_estate.bus\\_comm\\_real\\_estate\\_bm\\_starter\\_kit](http://www.energystar.gov/index.cfm?c=comm_real_estate.bus_comm_real_estate_bm_starter_kit)

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# Benefits of Benchmarking

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- Identify billing errors and abnormalities (much more common than many realize)
- Putting more eyes on consumption affects behavior
- Assess effectiveness of current operations, policies, practices
- Assess in planning: set goals, targets, timelines, prioritize capital improvements
- Be more responsive to residents
- Prove defensible financial savings to ownership or asset managers

# Energy efficiency in Common Areas



- Investing in energy efficiency in common areas directly impacts the bottom line, increasing NOI
- Low and no-cost measures provide immediate return on investment and can help fund future energy efficiency projects
- See handout for suggestions on getting started with high-return improvements

# Energy Efficiency in Resident Units



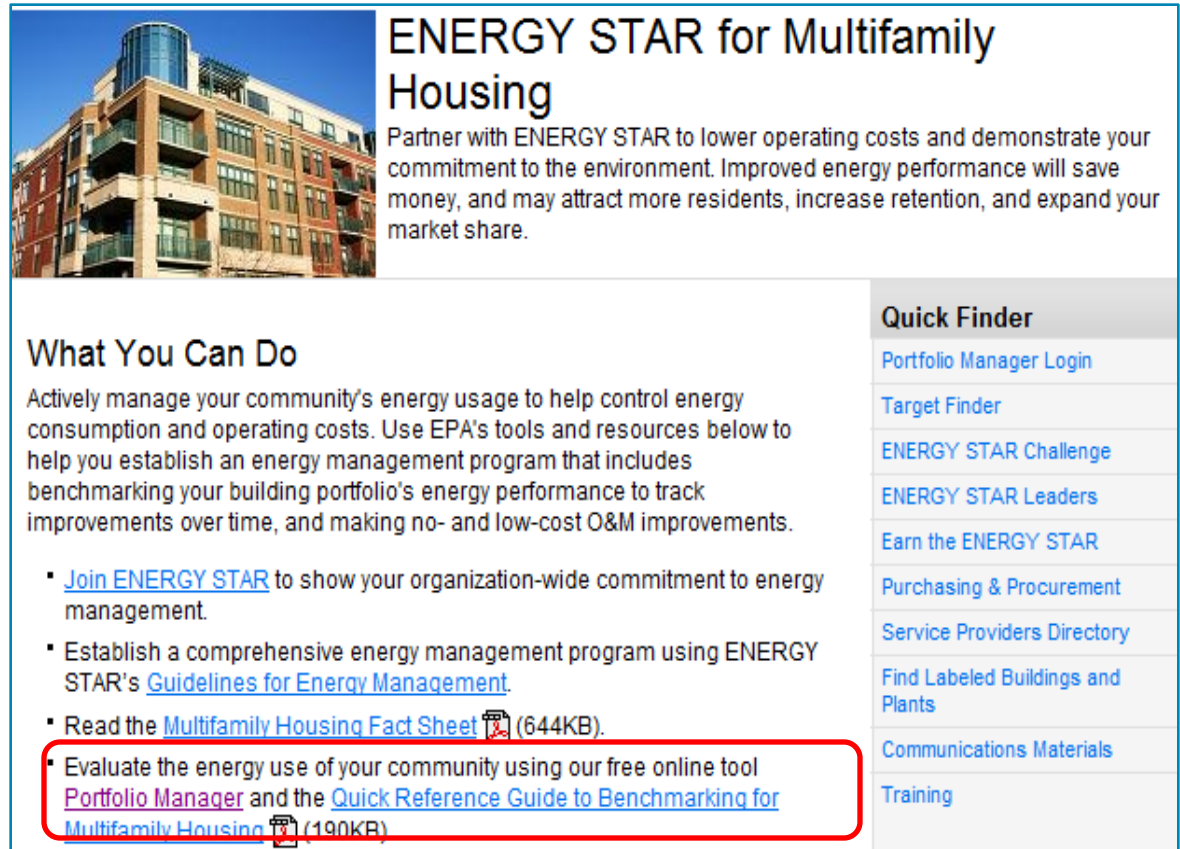
- While the direct financial benefit of investing in energy efficiency in apartment homes accrues to residents, potential benefits include:
  - Differentiation in a competitive market
  - Increased publicity and new marketing opportunities
  - Rebates and tax incentives
  - Improved resident satisfaction and comfort
  - Increased retention and higher occupancies
  - Rent premiums

# Getting Started



[www.ENERGYSTAR.gov/MultifamilyHousing](http://www.ENERGYSTAR.gov/MultifamilyHousing)

- Central hub for ENERGY STAR tools and resources for the multifamily industry
- News and events





## ENERGY STAR for Multifamily Housing

Partner with ENERGY STAR to lower operating costs and demonstrate your commitment to the environment. Improved energy performance will save money, and may attract more residents, increase retention, and expand your market share.

### What You Can Do

Actively manage your community's energy usage to help control energy consumption and operating costs. Use EPA's tools and resources below to help you establish an energy management program that includes benchmarking your building portfolio's energy performance to track improvements over time, and making no- and low-cost O&M improvements.

- [Join ENERGY STAR](#) to show your organization-wide commitment to energy management.
- Establish a comprehensive energy management program using ENERGY STAR's [Guidelines for Energy Management](#).
- Read the [Multifamily Housing Fact Sheet](#)  (644KB).
- Evaluate the energy use of your community using our free online tool [Portfolio Manager](#) and the [Quick Reference Guide to Benchmarking for Multifamily Housing](#)  (190KB).

#### Quick Finder

- [Portfolio Manager Login](#)
- [Target Finder](#)
- [ENERGY STAR Challenge](#)
- [ENERGY STAR Leaders](#)
- [Earn the ENERGY STAR](#)
- [Purchasing & Procurement](#)
- [Service Providers Directory](#)
- [Find Labeled Buildings and Plants](#)
- [Communications Materials](#)
- [Training](#)

# Resources

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- Portfolio Manager Training Sessions
  - Next Session November 16<sup>th</sup> 12pm
  - [www.energystar.gov/training](http://www.energystar.gov/training)
- Quick Reference Guide (handout)
  - Also find QRG at [www.energystar.gov/multifamilyhousing](http://www.energystar.gov/multifamilyhousing)
- Portfolio Manager technical team ([buildings@energystar.gov](mailto:buildings@energystar.gov))
- ENERGY STAR partners are provided an account manager who can assist in supporting the benchmarking process

# Questions?



**Alyssa Quarforth**  
**Program Manager**  
**ENERGY STAR Commercial Properties**  
**Climate Protection Partnerships**  
**Division, US EPA**

**[Quarforth.alynsa@epa.gov](mailto:Quarforth.alynsa@epa.gov)**

**[www.energystar.gov/multifamilyhousing](http://www.energystar.gov/multifamilyhousing)**