



# Leveraging ENERGY STAR in ARRA-Funded Projects for Commercial Buildings

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



# What is ENERGY STAR for Buildings?

- U.S. Environmental Protection Agency energy management program.
- Offers proven solutions to help building owners and managers reduce energy consumption.
- Program for new construction and existing buildings.
- Works in markets with a focus on:
  - Commercial property (offices, retail, hotels)
  - Public sector (government, K-12, higher ed)
  - Healthcare
  - Small business and congregations

# Portfolio Manager – Tracking Performance in Existing Buildings



- Free online tool for existing buildings:
  - Assess the energy use of existing buildings
  - Compare your energy use against your peers
  - Receive an energy performance rating (1-100 score) or comparison to national average energy use.
  - Track changes in energy use over time in single buildings, groups of buildings, or entire portfolios.
  - Track cost savings and CO<sub>2</sub> reductions.
  - Track water usage.
- <http://www.energystar.gov/benchmark>

# Portfolio Manager 1-2-3 for ARRA Projects

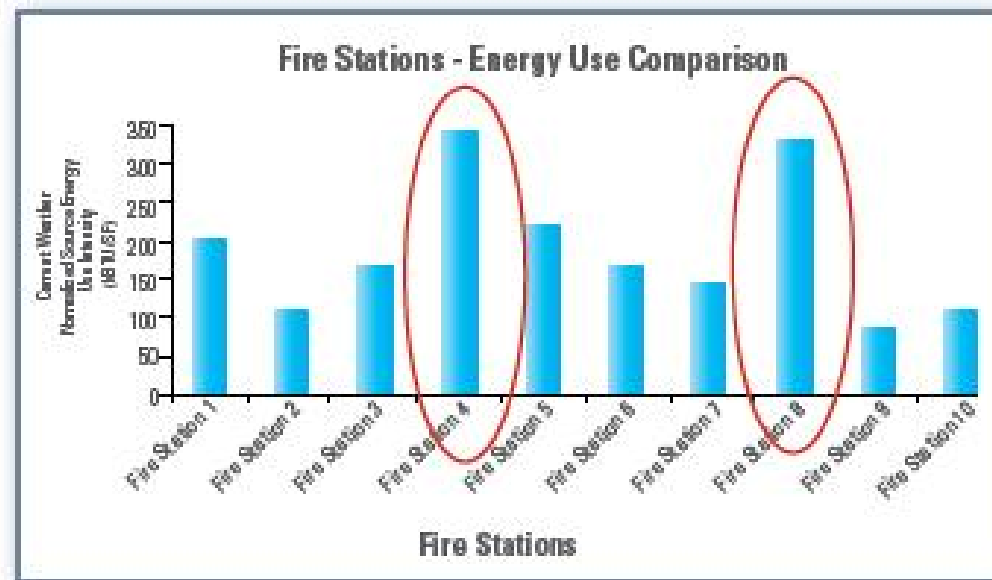
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- 1. Identify Projects**
- 2. Track Progress**
- 3. Document Savings Results**

# 1. Identify Best Opportunities for Energy Efficiency Improvements

- Identify under-performing buildings to target for energy efficiency improvements.
- Establish baselines to set goals and measure progress



Prioritize efforts by identifying under-performing buildings.

# 2. Track Progress Over Time

- Set a baseline and monitor energy efficiency improvements over time
- View percent improvement in weather-normalized energy use intensity.
- Track reductions in greenhouse gas emissions.
- Monitor energy and water costs



Facility Name	Current Source Energy Intensity (kBtu/Sq. Ft.)	Change from Baseline Adjusted Energy Use	Change from Baseline: Energy Use Intensity (kBtu/Sq. Ft.)	Change from Baseline: GHG Emissions (MtCO <sub>2</sub> e)	Energy Cost per Sq. Ft. (US Dollars (\$))
Fire Station 1	180.1	-12.3	-6.1	-275.86	\$0.50
Fire Station 2	172.6	-17.2	-10.7	-488.62	\$0.37

View and compare energy performance and GHG metrics.

# 3. Verify Savings Results

- Provide *transparency* and *accountability* to help demonstrate strategic use of capital improvement funding.
- Quickly and accurately demonstrate savings for an individual building or entire portfolio:
  - Energy use
  - GHG emissions
  - Water use
  - Energy costs

OMB No. 2580-0147

### STATEMENT OF ENERGY PERFORMANCE

#### Fire Station 2

Building ID: 1042661  
For 12-month Period Ending: December 31, 2006\*  
Date SEP becomes ineligible: N/A

Date SEP Generated: March 05, 2009

Facility	Facility Owner	Primary Contact for this Facility:
Fire Station 2	N/A	N/A
000 Blank Street		
Arlington, VA 22209		
Year Built: 1900		
Gross Floor Area (ft <sup>2</sup> ): 300,000		
Energy Performance Rating <sup>1</sup> (1-100) N/A		
Site Energy Use Summary <sup>2</sup>		
Electricity (kBtu)	15,800,000	
Natural Gas (kBtu) <sup>3</sup>	0	
Total Energy (kBtu)	15,800,000	
Energy Intensity <sup>4</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	
Electric Distribution Utility		
Virginia Electric & Power Co		
National Average Comparison		
National Average Site EUI	79	
National Average Source EUI	107	
% Difference from National Average Source EUI	10%	
Building Type	Fire Station/Police Station	
Meets Industry Standards <sup>5</sup> for Indoor Environmental Conditions:		
Ventilation for Acceptable Indoor Air Quality	N/A	
Acceptable Thermal Environmental Conditions	N/A	
Adequate Illumination	N/A	
Certifying Professional		
N/A		

Stamp of Certifying Professional

Based on the conditions observed at the time of my visit to this building, I certify that the information contained within this statement is accurate.

# Promote EE to Your Target Markets with ENERGY STAR



*“Grants can be used for energy efficiency and conservation programs and projects community wide”*

## **Louisville Kilowatt Crackdown**

Participants benchmark in EPA’s Portfolio Manager and work to improve performance during the campaign period. Over 240 Louisville commercial buildings participating (schools, CRE, healthcare, hospitality, and others)

## **Chicago Green Office Challenge**

Participants benchmarking in EPA’s Portfolio Manager to track energy and water use and compile results at the end of the contest period.

## **Pennsylvania Small Business Energy Efficiency Grants**

State makes funds available to small businesses for energy efficiency improvements. Applicants benchmark in EPA’s Portfolio Manager before and after the completion of the energy efficiency upgrade.

## **Wisconsin Lt. Governor ENERGY STAR School Challenge**

State campaign to challenge 100 new WI school districts to join as ENERGY STAR partners and reduce energy use by 10 percent or more.

→ More model programs at [www.energystar.gov/government](http://www.energystar.gov/government)



# New resources on the Public Sector pages: [www.energystar.gov/government](http://www.energystar.gov/government)



## SUPERIOR ENERGY MANAGEMENT CREATES ENVIRONMENTAL LEADERS

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## ENERGY STAR for Government

Government agencies spend more than \$10 billion a year on energy to provide public services and meet constituent needs — while grappling with tightening budgets. Yet nearly one-third of the energy used to run typical government buildings goes to waste. EPA provides local and state governments, as well as federal agencies, a proven energy management strategy and no-cost tools to save energy and money and demonstrate their environmental leadership.

### ENERGY STAR Tools and Best Practices Supporting the Recovery Act

- Use [Sample Text](#) (84KB) to incorporate ENERGY STAR into Energy Efficiency and Conservation Block Grant activity worksheets.

#### View pre-recorded training:

- Make the Most of Your Energy Efficiency Stimulus Funding — Plan, Monitor, and Report Results with ENERGY STAR Tools (1hr)
- Maximize Stimulus Funding with Performance Contracting and ENERGY STAR (1.20 hr)

Learn more about [leveraging EPA's Portfolio Manager](#) (900KB) and the [benchmarking starter kit](#) to quickly and easily prioritize energy efficiency projects in buildings, measure progress, and verify/report results.



#### Quick Finder

[Portfolio Manager Login](#)

[Target Finder](#)

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\*\*\* Sample text for EECBG Worksheets\*\*\*

•Pre-recorded web casts

•Fact Sheet: "PM for ARRA-funded EE projects"

•Benchmarking Starter Kit

# ENERGY STAR Sample Text for EECBG Activity Sheets (Attachment B1 in the FOA)



## DOE FOA Attachment B1: EECBG Activity Worksheet

EECBG Activity Worksheet

Grantee: \_\_\_\_\_ Date: \_\_\_\_\_

DUNS #: \_\_\_\_\_ Program Contact Email: \_\_\_\_\_

Program Contact First Name: \_\_\_\_\_ Last Name: \_\_\_\_\_

Project Title: \_\_\_\_\_

Activity: \_\_\_\_\_ If Other: \_\_\_\_\_

Sector: \_\_\_\_\_ If Other: \_\_\_\_\_

Proposed Number of Jobs Created: \_\_\_\_\_ Proposed Number of Jobs Retained: \_\_\_\_\_

Proposed Energy Saved and/or Renewable Energy Generated: \_\_\_\_\_

Proposed GHG Emissions Reduced (CO2 Equivalents): \_\_\_\_\_

Proposed Funds Leveraged: \_\_\_\_\_


Proposed EECBG Budget: \_\_\_\_\_

Projected Costs Within Budget: Administration: \_\_\_\_\_ Revolving Loans: \_\_\_\_\_ Subgrants: \_\_\_\_\_

Project Contact First Name: \_\_\_\_\_ Last Name: \_\_\_\_\_ Email: \_\_\_\_\_

Metric Activity: \_\_\_\_\_ If Other: \_\_\_\_\_

Project Summary: *(limit summary to space provided)*



# ENERGY STAR Sample Text for EECBG Activity Sheets (Attachment B1 in the FOA)

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- **Sample Templates for Cities, Counties, and Tribes**
  - Strategic Implementation of Energy Efficiency Improvements in Public Buildings
  - Improving Building Energy Efficiency within Target Market Sectors
  - Implementing Energy Retrofits in Existing Homes

Download at [www.energystar.gov/government](http://www.energystar.gov/government)

# ENERGY STAR Sample Text for EECBG Activity Sheets (Attachment B1 in the FOA)

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- **Sample Templates for States**
  - Strategic Implementation of Energy Efficiency Improvements in Public Buildings
  - Improving Building Energy Efficiency within State-wide Target Market Sectors
  - Improving Building Energy Efficiency in K-12 Schools
  - Implementing Energy Retrofits in Existing Homes

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# Benchmarking Starter Kit: Animated Portfolio Manager Training



## Introduction

Create, Edit, and Login

Add and Edit a Property

Add and Edit a Space

Add and Edit Energy Meters

View & Interpret Results



## A Step-by-Step Guide to Benchmarking Using EPA's Portfolio Manager



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





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