

What is ENERGY STAR?



- Voluntary climate protection partnership with EPA
- Strategic approach to energy management, promoting energy efficient products and practices
- Helps organizations save money and protect the environment
- Influential brand recognized by over 70 percent of Americans

Why Partner with EPA?



- **Unbiased:** A trusted, unbiased source of research and technical analysis
- **Best practices:** Looks across the commercial sector supply chain to identify best practices
- **Environmental and financial benefits:** Develops market tools and resources resulting in verifiable, sustainable, and easily communicated environmental and financial benefits
- **Carbon mitigation:** Reduce your organization's environmental footprint and carbon impact

ENERGY STAR Buildings Resources



- Tools to benchmark and track energy performance in existing buildings.
- Guidelines for Energy Management.
- Case studies and best practices.
- Calculators to track returns on energy efficiency investments.
- Live and recorded training on numerous topics.
- Materials to communicate with employees, customers, stakeholders, and the media about energy efficiency efforts.
- Assistance for architects on designing energy efficient buildings.

Who is ENERGY STAR for Buildings?



- Over 2,400 Partners operating more than 14 billion square feet of space (nearly 20% of space in the U.S.).
- Over 5,000 small business and congregation network participants.
- Nearly 120 utility and energy efficiency program sponsors.
- Over 2,000 service/product providers.
- Over 83,000 buildings, representing more than 11.5 billion square feet of space, measure and track their energy performance with ENERGY STAR.

Who's Improving Performance with ENERGY STAR



- **Commercial Real Estate** (CB Richard Ellis, Hines, Jones Lang LaSalle, USAA Realty, Transwestern)
- **Retail** (JCPenney, Kohl's, Target, Verizon Wireless, Food Lion, Stop & Shop)
- **Hospitality** (Marriott, Best Western, Wyndham)
- **Healthcare** (Sunrise Assisted Living, Providence Health, Inova Health System, NY Presbyterian)
- **State and Local Government** (California, New York City, Washington, DC, Louisville, Arlington County (VA))
- **K-12 Schools** (New York City Schools, San Diego Schools, over 75 Wisconsin school districts)
- **Higher Education** (University of New Hampshire, City University of New York, University of Michigan)

ENERGY STAR Partner Organizations



- Building Owners and Managers Association (BOMA)
- CoStar (Commercial Building Multiple Listing Service)
- American Hotel and Lodging Association (AH&LA)
- Professional Retail Store Maintenance Association (PRSM)
- US Conference of Mayors & National Association of Counties (NACo)
- Stadium Managers Association (SMA)
- National Small Business Association (NSBA)
- National Automobile Dealers Association (NADA)
- American Society of Healthcare Engineers (ASHE)
- International Community Bankers Association (ICBA)
- National Association of Evangelicals (NAE)

... and many more.





Benchmarking

Portfolio Manager

- Benchmark the energy use of all of your buildings – receive an energy use intensity (EUI)
- Many building types can receive energy performance ratings on a 1-100 scale.
- Track changes in energy use over time in single buildings, groups of buildings, campuses, or entire portfolios.
- Track cost savings and CO₂ emissions.
- Apply for the ENERGY STAR.
- Track water usage.

www.energystar.gov/benchmark



Plan, Monitor, and Verify Energy Efficiency Results with Portfolio Manager

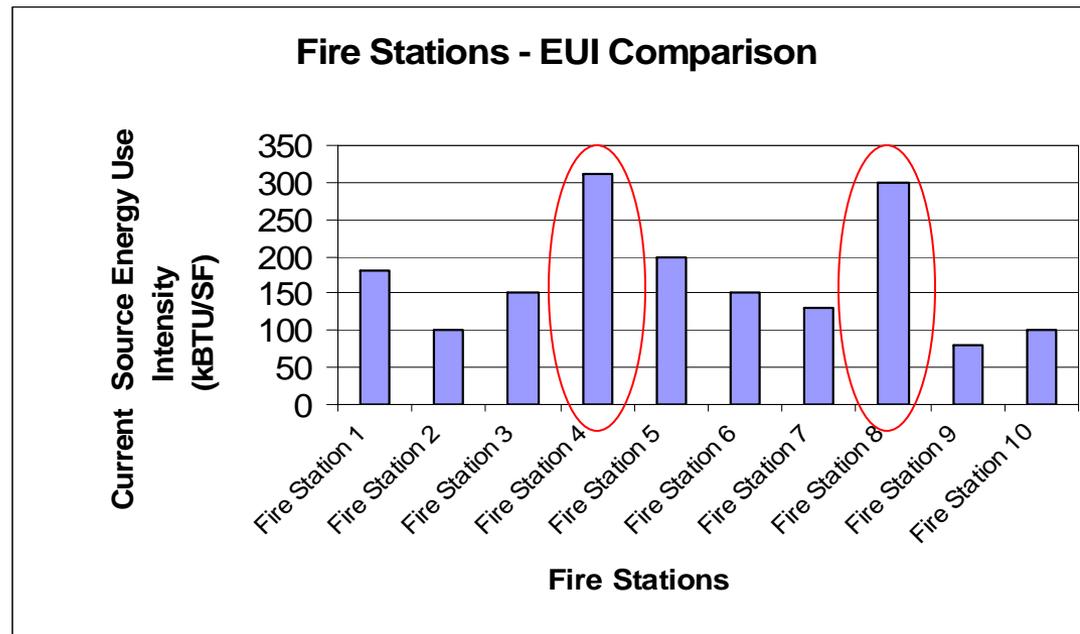


- Identify EE opportunities in existing buildings
- Measure progress over time (energy use, GHG emissions)
- Verify savings results

Identify Energy Efficiency Projects



- Identify under-performing buildings to target for energy efficiency improvements
- Compare cost savings across buildings and calculate cost savings for a specific project
- Establish baselines to set goals and measure progress for energy efficiency improvement projects over time



Monitor Progress Over Time



- Set a baseline and monitor energy efficiency improvements compared to that baseline over time
- View percent improvement in weather-normalized energy use intensity
- Track reductions in green house gas emissions Track multiple energy and water meters for each facility
- Monitor energy and water costs

Facility Name ▼	Current Source Energy Intensity (kBtu/Sq. Ft.) i	Change from Baseline: Adjusted Energy Use (%) i	Change from Baseline: Energy Use Intensity (kBtu/Sq. Ft.) i	Change from Baseline: GHG Emissions (MtCO ₂ e) i	Total Energy Cost per Sq. Ft. (US Dollars (\$)) i
Fire Station 1	160.1	-12.3	-6.1	-275.86	\$0.30
Fire Station 2	172.6	-18.3	-10.7	-488.62	\$0.37

[Download](#) in Excel

Verify Savings Results



- Provide a level of *transparency* and *accountability* to help demonstrate strategic use of capital improvement funding.
- Quickly and accurately demonstrate savings for an individual building or their entire portfolio:
 - Energy use
 - GHG emissions
 - Water use
 - Energy costs
- Download all performance metrics from Portfolio Manger into Excel.
- Generate a Statement of Energy Performance (SEP) for each building, summarizing important performance indicators, including site and source energy intensity and CO2 emissions.

Visit www.energystar.gov/benchmark to get started

Verify Savings Results: Statement of Energy Performance



OMB No. 2060-0347



STATEMENT OF ENERGY PERFORMANCE Fire Station 2

Building ID: 1642681
For 12-month Period Ending: December 31, 2008¹
Date SEP becomes ineligible: N/A

Date SEP Generated: March 03, 2009

Facility
Fire Station 2
000 Blank street
Arlington, VA 22209

Facility Owner
N/A

Primary Contact for this Facility
N/A

Year Built: 1990
Gross Floor Area (ft²): 300,000

Energy Performance Rating² (1-100) 76

Site Energy Use Summary³

Electricity (kBtu)	15,500,000
Natural Gas (kBtu) ⁴	0
Total Energy (kBtu)	15,500,000

Energy Intensity⁵

Site (kBtu/ft ² /yr)	52
Source (kBtu/ft ² /yr)	173

Emissions (based on site energy use)

Greenhouse Gas Emissions (MtCO ₂ e/year)	2,352
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Electric Distribution Utility

Virginia Electric & Power Co

National Average Comparison

National Average Site EUI	71
National Average Source EUI	237
% Difference from National Average Source EUI	-27%
Building Type	Office

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.

Meets Industry Standards⁶ 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

Notes:

1. Application for the ENERGY STAR must be submitted to EPA within 4 months of the Period Ending date. Award of the ENERGY STAR is not final until approval is received from EPA.
2. The EPA Energy Performance Rating is based on total source energy. A rating of 75 is the minimum to be eligible for the ENERGY STAR.
3. Values represent energy consumption, annualized to a 12-month period.
4. Natural Gas values in units of volume (e.g. cubic feet) are converted to kBtu with adjustments made for elevation based on Facility zip code.
5. Values represent energy intensity, annualized to a 12-month period.
6. Based on Meeting ASHRAE Standard 62 for ventilation for acceptable indoor air quality, ASHRAE Standard 55 for thermal comfort, and IESNA Lighting Handbook for lighting quality.



ENERGY STAR as a Platform



- **Get Proven Energy Management Strategies:** Based on the successful best practices of ENERGY STAR partners, the ENERGY STAR Guidelines for Energy Management can assist you in improving your energy and financial performance while establishing your government as an environmental leader. Learn more at www.energystar.gov/guidelines.
- **Perform Cost-effective Building Upgrades:** Plan systematic building upgrades using the 5-stage approach in EPA's Building Upgrade Manual. This online handbook, available for download at www.energystar.gov/bldgmanual, offers technical guidance for each stage, from commissioning to plant upgrades.
- **Communicate Success and Promote Energy Efficiency:** Use the ENERGY STAR Challenge toolkit to help spread the energy efficiency word to others. Find it and other resources at www.energystar.gov/challenge.
- **Recognize Results:** Buildings that rate in the top 25 percent of energy-efficient buildings in the nation may qualify for the ENERGY STAR. Learn more at www.energystar.gov/eslabel.



Portfolio Manager:

www.energystar.gov/benchmark

ENERGY STAR for

State and Local Governments

www.energystar.gov/government

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