

ENERGY STAR – Leading the Way to Climate-Friendly Buildings

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ENERGY STAR













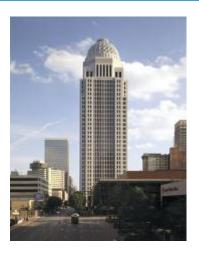






Also ENERGY STAR





AEGON Center Louisville, KY



Shriner's Hospital for Children Houston, TX



Twin Peaks Charter Academy Longmont, CO



500 Boylston St. Boston, MA



Blue Earth County Courthouse Mankato, MN



Westin San Francisco Airport Millbrae, CA



- ➤ U.S. Environmental Protection Agency energy management program providing proven solutions to help public and private sector building owners and managers reduce their energy consumption..
- Provides proven solutions to help public and private sector building owners and managers reduce their energy consumption.
- > Works in markets with a focus on:
 - Public sector (government, K-12, higher ed)
 - Commercial property (offices, retail, hotels)
 - Healthcare
 - Small business and congregations



- > Free technical resources:
 - Tools to benchmark and track energy performance in buildings
 - Energy Management Guidelines
 - Assistance for architects on designing energy efficient buildings
 - Case studies and best practices from leaders
 - Calculators to track returns on energy efficiency investments
 - Training
 - Materials to communicate with citizens, employees, stakeholders, and the media about energy efficiency efforts.



- ➤ National and Local Recognition
 - ENERGY STAR Partner



 Designed to Earn the ENERGY STAR



ENERGY STAR Label



- ENERGY STAR Leader
- ENERGY STAR Partner of the Year





- ➤ Over 1,700 Partners operating more than 11 billion square feet of space (nearly 20% of space in the U.S.).
- ➤ Over 70,000 buildings measure and track their energy performance, energy costs, and carbon emissions with ENERGY STAR.

The ENERGY STAR for Buildings



- ➤ ENERGY STAR labeled buildings use 35 percent less energy than average buildings.
- ➤ Nearly 4,000 buildings have earned the ENERGY STAR label for energy efficiency.





Who's Improving Energy Performance with ENERGY STAR



- > State and Local Governments (California, Ohio, Louisville, Washington, DC, Albuquerque)
- Major corporations (Humana, GE, JC Penney, Marriott, Food Lion, Wal-Mart, CVS, Staples)
- Property owners and managers (Hines, CB Richard Ellis, Jones Lang LaSalle, USAA Realty, Transwestern)
- K-12 Schools (Jefferson County Public Schools, San Diego Schools)
- Universities (University of New Hampshire, City University of New York, University of Michigan)
- Hospitals and health systems (Providence Health, NY Presbyterian)

ENERGY STAR Partner Organizations



- US Conference of Mayors
- National Association of Counties (NACo)
- Building Owners and Managers Association (BOMA)
- International Facility Management Association (IFMA)
- CoStar (Commercial Building Multiple Listing Service)
- ➤ American Society of Healthcare Engineers (ASHE)
- ➤ National Automobile Dealers Association (NADA)
- International Community Bankers Association (ICBA)
- National Association of Evangelicals (NAE)
- National Small Business Association (NSBA)
- American Bar Association (ABA)

... and many more.

Financial Benefits of ENERGY STAR



- Leading companies realize that energy efficiency can have a high return-on-investment and is necessary in order to remain competitive.
- ➤ Businesses and organizations that are leaders in energy efficiency use about 30 percent less energy than their competitors.
- > Financial benefits of energy efficiency include:
 - Operating costs for ENERGY STAR buildings are more than 50 cents per square foot less than for average buildings. This means savings of \$5,000 per year for every 10,000 square feet of typical office space.
 - Full-service hotels that improve energy efficiency by 10 percent see an increased average daily rate of \$1.35.
 - Every \$1 saved on energy at a nonprofit hospital is equivalent to generating \$20 in new revenue.
 - A 10 percent reduction in energy costs for the average full-line discount retailer can boost net profit margins by as much as 1.55 percent.

Environmental Benefits of ENERGY STAR



- If the energy efficiency of commercial and industrial buildings improved by just 10 percent, Americans would save about \$20 billion and reduce greenhouse gas emissions equal to the emissions from about 30 million vehicles.
- Commercial buildings and industrial facilities generate nearly 50% of U.S. carbon dioxide emissions.
- ➤ 30% of energy consumed in commercial buildings is used unnecessarily or inefficiently.
- ➤ According to the U.S. Green Building Council, GHG emissions from commercial buildings are projected to grow faster than any other sector over the next 25 years about 1.8 percent per year.
- IMMEDIATE, LOW-COST emission reduction opportunities for cities
 EXISTING city and private sector buildings.

Public Relations Benefits of ENERGY STAR

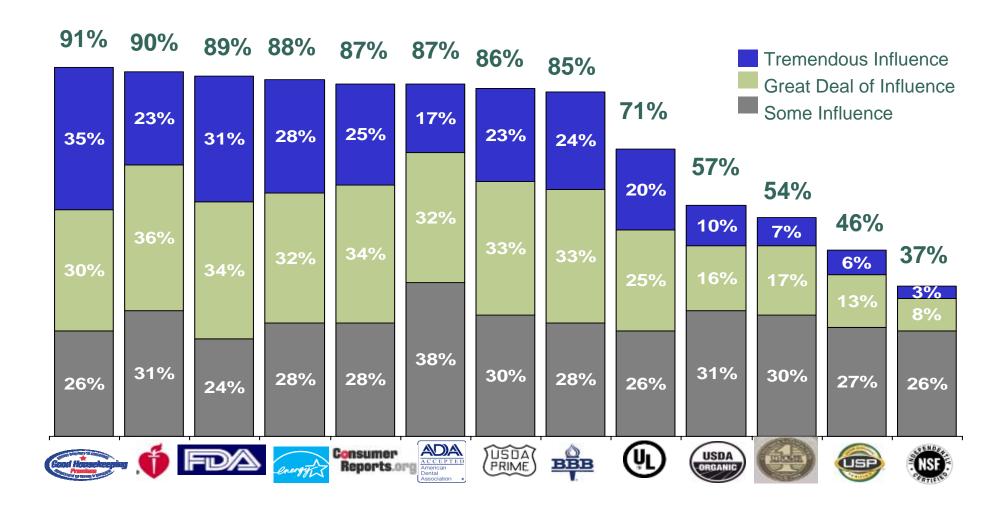


- Americans' concerns about environmental issues have increased more than 10 percentage points between 2004 and 2006 (Gallup survey).
 - 88% of US adults responded that "energy efficient" was very important in their electronics, appliance, lighting, and heating/cooling equipment purchases
- > 58% of Americans rank "dealing with the nation's energy problem" as a top priority in 2006, up from 40% in 2003 (Pew survey).
- > 79% of Americans think global warming poses a serious threat to future generations (ABC News/Washington Post poll)
- > ENERGY STAR is a trusted, proven and recognized brand
 - Aided recognition levels for ENERGY STAR are over 68%, according to latest survey results
- More than 60% of U.S. households reported being favorably influenced by the ENERGY STAR label
- According to 2003 study
 - 85% of 25-34 year-olds & 76% of 35-44 year-olds
 - 74% of those with HHI \$50,000+
 - 76% families with kids

....recognize the ENERGY STAR brand

ENERGY STAR – A Trusted Brand







ENERGY STAR Challenge



Improve energy efficiency 10% or more!

The ENERGY STAR Challenge



- ➤ ENERGY STAR Challenge encourages everyone to work to improve the energy efficiency of America's existing buildings by 10% or more.
- ➤ If this goal were met, each year we would save \$20 billion and reduce GHG emissions equivalent to those of 30 million vehicles.
- ➤ Nearly 400 organizations participating:
 - 32 States
 - Over 25 national associations
 - Over 140 cities and counties

Louisville and the ENERGY STAR Challenge



- ➤ Platform for Louisville to achieve quick, low-cost reductions in GHG emissions.
- > The city plays a dual role in the Challenge:
 - Lead by example and improve city buildings
 - Promote energy efficiency to businesses and other organizations within the city.
- Progress toward meeting goals of the Mayors Climate Protection Agreement

U.S. Mayors Climate Protection Agreement



- "We will strive to meet or exceed Kyoto Protocol targets for reducing global warming pollution by taking actions in our own operations and communities . . ."
- ➤ Mayor Abramson and others have committed to, at a minimum, reduce GHG emissions by 7 percent below 1990 levels by 2012.
- > We have 4 years to go, so immediate action is needed.
- > Engaging the private sector is essential . . .

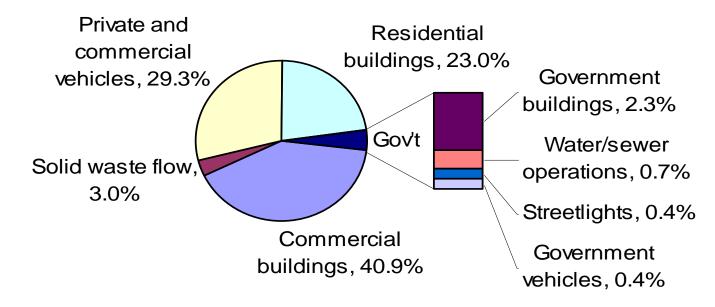
Government Emissions – A Small Piece of the Pie



Total Arlington County Greenhouse Gas Emissions by Sector, 2000

Total community emissions: 2.9 million tons CO2-equivalent

Government < 4% of total, so community outreach critical



Slide Courtesy of: John Morrill, Energy Manager, Arlington County, VA

The ENERGY STAR Challenge Toolkit



➤ Get Started!

- Quick Lists of ENERGY STAR Resources for Buildings and Homes.
- Model for establishing an energy efficiency campaign for your community.

> Learn More!

- Fact sheets on energy use in different parts of the community (offices, hotels, schools, supermarkets, congregations, etc.)
- Fast facts on energy use and climate change to help you craft your message.

➤ Spread the Word!

- Co-brandable information cards, posters, and other materials for distribution to constituents and employees.
- Sample news releases.
- Tips on working with the media to promote your efforts.

... and much more

Co-Brandable Posters and Print Advertisements















Tip Sheets for Consumers



ENERGY STAR® at Home and Work



Building Energy Use and Its Impact on the Environment

Did you know that energy use in commercial and industrial buildings is responsible for about 45 percent of U.S. greenhouse gas emissions that contribute to global warming?

The good news is that the opportunity to reduce these emissions is significant, since as much as 30 percent of the energy consumed in commercial and industrial buildings is often wasted. Schools, hotels, hospitals, supermarkets, offices, and manufacturing facilities across the country are reducing their greenhouse gas emissions by increasing the energy efficiency of the buildings where we work, shop, play, and learn — and they need your help!

Use Less, Save More, and Earn the ENERGY STAR

Demand for environmentally friendly buildings is growing, and superior energy efficiency, identified by the ENERGY STAR, is a critical element of green building. Commercial and industrial buildings that earn the ENERGY STAR are the top performers for energy efficiency nationwide and use about 35 percent less energy than average buildings.

Thousands of commercial and industrial buildings in all 50 states have earned the prestigious ENERGY STAR for superior energy performance. And you can help make your building one of them!

Help your company reach its energy goals with a few simple tips:

- > Enable the monitor power management function on office computers, which automatically puts monitors to sleep when not in use. To enable this function, visit www.energystar.gov/enablepowermanagement.
- > Make sure that areas in front of vents are clear of furniture and paper. As much as 25 percent more energy is required to distribute air if your vents are blocked.
- > Turn off the lights in rooms that are not occupied, or where daylight is adequate. This can reduce lighting expenses by 10 to 40 percent. Also open or close blinds to make the best use of natural daylight.



ENERGY STAR® at Home and Work



Use Less, Save More, and Earn the ENERGY STAR (cont.)

- > Turn off printers, copiers, and fax machines when they are not in use.
- > Adjust thermostats to avoid energy use when your office is closed.
- > Swap out incandescent light bulbs with ENERGY STAR qualified compact fluorescent light bulbs (CFLs) in your desk, task, and floor lamps.
- > To learn more ways you can save energy while at work, visit: www.energystar.gov/buildings.

Use Less, Save More at Home

You can do more at home to save energy and fight global warming with the following simple and easy tips:

- > Look for the ENERGY STAR on consumer electronics products.
- > Unplug cell phone battery chargers or power adapters when not in use, and turn off lights when leaving a room.
- > Install a programmable thermostat, which when properly programmed can save about \$100 every year in energy costs.
- > Find and seal air leaks in your home to keep hot air in during the winter and cool air in
- > Take the ENERGY STAR Change a Light Pledge at www.energystar.gov/changealight, and replace your home's five most frequently used light fixtures or the bulbs in them with models that have earned the ENERGY STAR to save up to \$65 each year in
- > Choose appliances that have earned the ENERGY STAR, and you can save \$80 a year in energy costs, while saving the environment.
- > Keep air registers and vents clear to allow air to flow freely throughout the room.
- > To find out more ways you can save energy at home, visit: www.energystar.gov/home.

ENERGY STAR® is a government-backed program helping businesses

Press Releases and Newsletter Articles in a Snap!



Sample News Release: Taking the Challenge



FOR IMMEDIATE RELEASE

CONTACT: [NAME]

[Organization/Company/Government Name] TAKES ENERGY STAR* CHALLENGE TO
SAVE MONEY AND PROTECT THE ENVIRONMENT

[City, State] — In a positive step toward reducing energy use, [Organization/Company/Government Name] has taken the U.S. Environmental Protection Agency's (EPA) ENERGY STAR Challenge.

The ENERGY STAR Challenge, launched by EPA in March 2005, calls for an energy efficiency improvement of 10 percent or more for the more than 5 million commercial and industrial buildings in the United States. Energy is often generated by burning fossil fuels, which emits greenhouse gases that contribute to climate change. Forty-five percent of U.S. greenhouse gas emissions are caused by buildings and industrial facilities. Making more efficient use of energy is the best starting point for reducing our carbon footprint and saving money.

"Marry of us are taking steps to improve energy efficiency at home but may not realize that there are opportunities to save where we work, shop, play, and learn, as well," said (Topalizational Representative Name, Title). "By making energy-efficient choices, we can reduce our nearly use and asswe money while protecting the environment."

The potential savings are staggering. EPA estimates that if the energy efficiency of commercial and industrial buildings in the U.S. improved 10 percent, Americans would reduce greenhouse gas emissions equal to those from about 30 million vehicles while saving about \$20 billion.*

Today, leading companies realize that energy efficiency is not only the first step to being green, but is also about smart business. Energy efficiency can have a high return on investment and is necessary in order to remain competitive. Businesses, cryganizations, and governments that are leaders in energy efficiency use about 30 percent less energy than their competitors.

"The Challenge is a win-win for us and for other [Businesses/Organizations/Governments] looking to save energy and improve their bottom line," continued [Organizational Representative Last Name], "ENERGY STAR provides the tools and resources to help identify areas for improving energy efficiency and develop a statasjic energy management plan."

ENERGY STAR, a Federal government backed program, in a voluntary program that sets standards for superior energy efficiency in buildings, products, and services. To date, more than 30,000 commercial and industrial buildings have used ENERGY STAR tools to identify opportunities for energy efficiency improvements, and more than 32,000 of these buildings have earned the ENERGY STAR.

*Source Energy Internation Administration *200 (EEEE Special Tolders Table CAR, Type observed for any filty in Teach for all Linkings, 2022** (December 2023 1.1 to 2027**) Comprehensive American Special Comprehensive

ENERGY STAR* is a government-backed program helping businesses and individuals protect the environment through superior energy efficiency



ENERGY STAR* Challenge Sample Text Documents



Sample #2 (for employees/volunteers)

Many hands make light work.

At [Organization Name], we depend on you in many ways. Now that we've taken on the ENERGY STAR Challenge, we'll need everyone's help to do what's best for the environment.

[Organization Name] has committed to help improve the energy efficiency of America's commercial and industrial buildings by 10 percent or more through the ENERGY STAR Challenge. We'll be minimized one grave enhouse gas emissions, saving money on energy costs, and decreasing our impact on the enriconnent and global climate change.

Energy used in U.S. commercial and industrial buildings like ours is responsible for 45 percent of our national greenhouse gas emissions. Our commitment to reducing energy use means a cleaner, safer environment for years to come.

This is good news for us as an organization, but it's also great news for our staff. In doing our part to protect the environment, we're helping to build a better world for your family and friends. Our hard work today will pay off with a cleaner, greener tomorrow.

Help us achieve our goals. We'll be taking steps to improve our facilitys "carbon footprint," and there are simple things each member of our team can do to make a big impact on energy savings:

- > Change the bulb in your desk lamp to an ENERGY STAR qualified compact fluorescent light bulb (CFL). CR.s use 75 percent less energy than an incandescent bulb. This is an easy change to make in your home as well. Replacing just one incandescent bulb with a CFL can save you up to \$30 on your home electricity bill over the life of the bulb.
- > Change your computer's settings to utilize a "sleep mode" when not in use. If you use other electronics or appliances, turn them off when they're not needed.
- > Turn off the lights in your office or workspace when you leave for the day. If you have an air conditioner or heating unit in your workspace, turn it off overnight. If you see other areas of energy waste, please let us knew. Contact[Your Challelinge Coerdinater] for help in implementing these energy-saving changes, or to let us know if you have a question or concern.

Take our challenge one step further and reduce energy use in your home, tea. This will help decrease the greenhouse gas emissions that contribute to global climate change, and can save you money on utility bills. Visit www.energystar.gov/home for more tips and information on how to improve your home's efficiency.

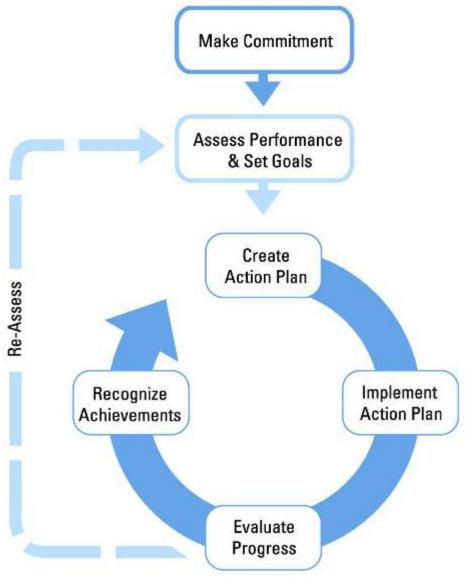
ENERGY STAR* is a government-backed program helping businesses and individuals protect the environment through superior energy efficiency



The ENERGY STAR Approach



ENERGY STAR
Energy Management
Guidelines: a
commitment to
continuous energy
performance
improvement.



Is Your Building Performing Well?





Is 18 MPG high or low for an automobile?

Is 80 kBtu/SF/YR high or low for a building?

Energy
Performance

EPA
Benchmarking





Benchmarking – The First Step to Energy Savings in Buildings



- ➤ Benchmarking through ENERGY STAR allows you to:
 - Compare one building against a national sample of similar buildings.
 - Compare all of your buildings of a similar type to each other.
 - Set priorities for use of limited staff time and/or investment capital.
- ➤ Why bother?

Myth #1: Age Matters



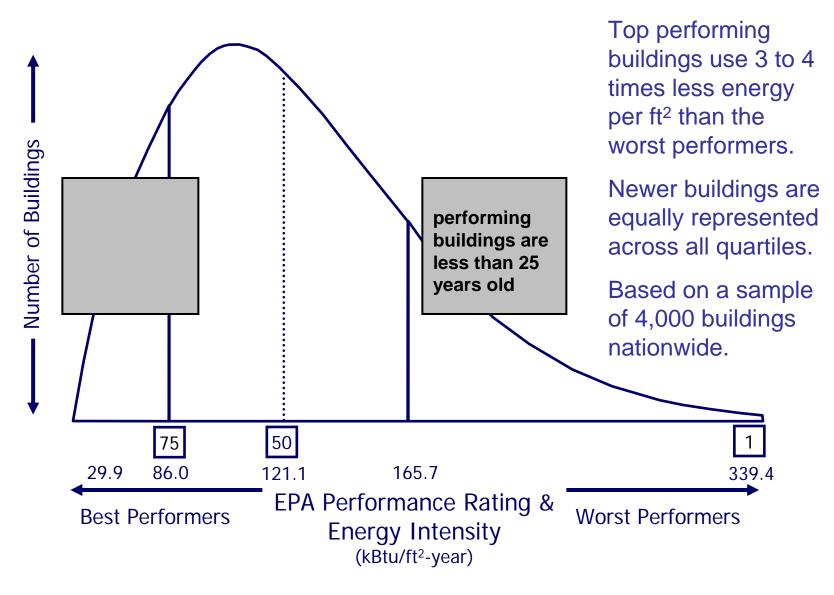
My building is new, so I know it's energy efficient.

— or —

My building is old, so I can't make it efficient.

New Doesn't Always Equal Efficient





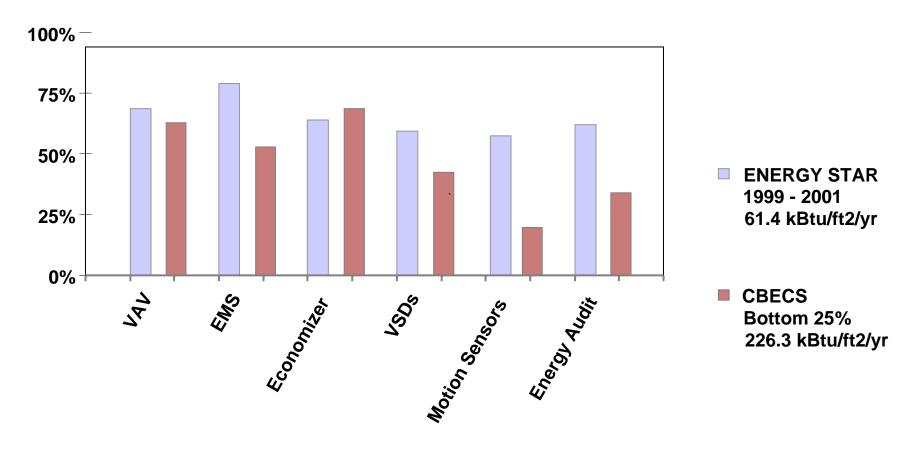
Myth #2: Technology Matters



I installed energy efficient technologies, so I know my building is energy efficient.

Technology Doesn't Guarantee High Performance



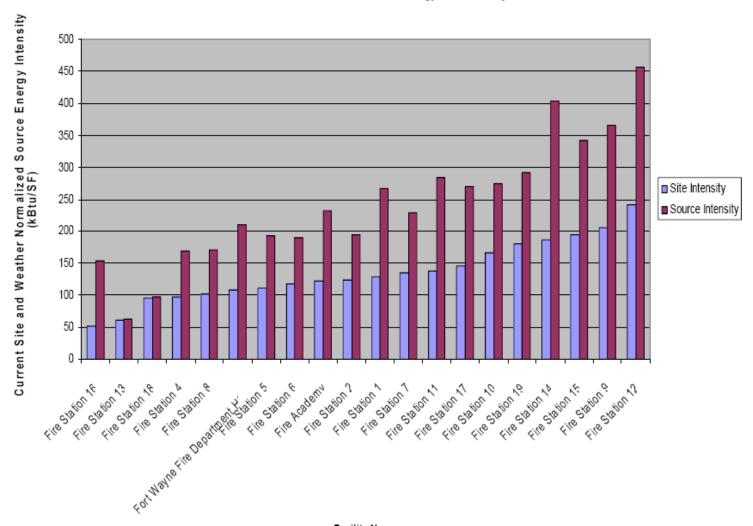


Note: "CBECS" is the Energy Information Administration's Commercial Building Energy Consumption Survey, http://www.eia.doe.gov/emeu/cbecs/contents.html

Fort Wayne Fire Stations 20 Similar Buildings – Different Energy Use



Fire Stations- Site and Source Energy Use Intensity



Portfolio Manager – Helping You Track Your Performance



- > Free online tool where you can:
 - Benchmark the energy use of all of your buildings all will receive an EUI (energy use intensity) and some will receive ratings on a 1-100 scale.
 - Track changes in energy use over time in single buildings, groups of buildings, or entire portfolios.
 - Track cost savings and CO₂ emissions.
 - Apply for ENERGY STAR recognition.
 - Track water usage.
- > Free on-line live trainings offered monthly.
- ➤ Louisville-Jefferson County Metro government currently initiating benchmarking of all city buildings with Portfolio Manager Contact Ben Tipton for more information.
- http://www.energystar.gov/benchmark

ENERGY STAR Buildings – Beyond Benchmarking



- Technical Tools and Guidance
 - Energy Management Guidelines
 - Creating an Energy Management Team
 - Building Upgrade Manual
 - Calculator tools to track return on investment of projects
 - Assistance for architects in designing energy efficient buildings
- On-Line Training
 - Designing Top Energy Performing Buildings
 - Portfolio Manager and Target Finder
 - Best Practices and Networking Meetings
 - ENERGY STAR Challenge: Getting Started
- Campaigns to Involve Employees, Customers, and Others
 - ENERGY STAR Challenge
 - Change-a-Light Campaign



The BIG Question...

Do you have enough money in your existing budgets to implement the projects that should be done?

Capital vs. Operating Budgets



"Over 80 percent of that capital spending is typically done through grant and loan subsidy programs for states and localities. In contrast, only around 10 percent of spending for operation and maintenance is done through grants and loan subsidies."

Energy Performance Contract Defined



"...an agreement with a private energy service company (ESCO)...[that] will identify and evaluate energy-saving opportunities and then recommend a package of improvements to be paid for through savings. The ESCO will guarantee that savings meet or exceed annual payments to cover all project costs....If savings don't materialize, the ESCO pays the difference..."

- ENERGY SERVICES COALITION





"An ESCO, or Energy Service Company, is a business that develops, installs, and finances projects designed to improve the energy efficiency and maintenance costs for facilities over a seven to 10 year time period. ESOPs generally act as project developers for a wide range of tasks and assume the technical and performance risk associated with the project."

www.naesco.org

What Services Can An ESCo Provide?



- ✓ Walk-through energy audit
- Comprehensive energy audit
- ✓ Design and specification of new equipment
- √ Vendor of energy efficiency equipment
- ✓ Installation/construction management
- ✓ Performance guarantees
- ✓ Ongoing maintenance
- ✓ Training of personnel
- Measurement and verification of project performance
- ✓ Financing
- ✓ Indoor Air Quality problems
- ✓ Procurement and purchase of energy commodity



Organizations Leveraging the ENERGY STAR Brand

ENERGY STAR and Home Depot





The Home Depot website:

- Features the 2007
 Partner of the Year Logo
- Links to ENERGY STAR educational materials and campaigns
- Provides information on energy efficient products for sale

ENERGY STAR and Food Lion





ENERGY STAR and McDonalds/ Dollar General





Shopping Bags (Dollar General)



Cups and Bags (McDonalds)

ENERGY STAR and Starbucks





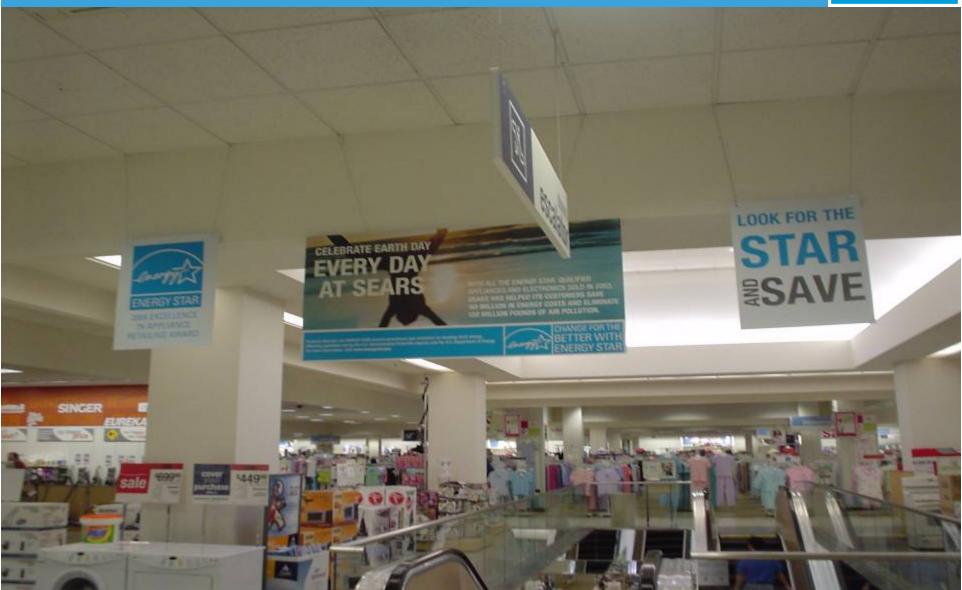
Starbucks Earth Day Campaign





ENERGY STAR and Sears





ENERGY STAR and Giant Eagle



Giant Eagle held an ENERGY STAR in-store awareness event

- Employees wore "Ask about ENERGY STAR" pins
- Distributed 3000 flyers in grocery bags
- Displayed posters in all stores
- Displayed table tent cards at all stores with dine-in cafes





ENERGY STAR Bag Stuffer for Retail Partners



MAKE YOUR HOME MORE ENERGY EFFICIENT.

ENERGY STAR® can help you do your part to prevent global climate change.

Use ENERGY STAR qualified light bulbs (CFLs)

- Use up to 66% less energy than incandescent bulbs
- Last up to 6-10x longer
- Are available in a variety of shapes and styles

Buy ENERGY STAR qualified appliances

- Clothes washers use 50% less energy and up to 15 gallons less water
- Dishwashers use 25% less energy
- Refrigerators and freezers use 40% less energy
- Room ACs use 10% less energy

BOARDY STAR

Get a professional energy evaluation and make sure your home is properly insulated and sealed.

For more information about products and programs, go to www.energystar.gov.

Portland Office Energy Showdown



Recognized office buildings that have achieved a high level of energy efficiency

- Launched in early 2007 in conjunction with the BOMA Energy Efficiency Program, or BEEP
- Participants benchmarked with Portfolio Manager using energy data from April 2006 through March 2007.
- Those who placed first, second and third in the Showdown received cash prizes and all properties qualifying for the ENERGY STAR label received free engineering certification, provided by Energy Trust of Oregon.



The 200 Market building, managed by Russell Development Company, won first place

BOMA Seattle/King County Kilowatt Crackdown



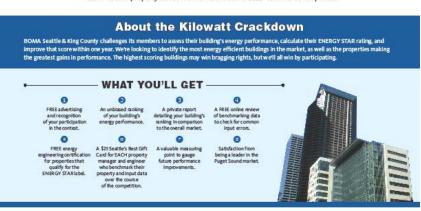
Promoting leadership in energy efficient building operations.

- Participants will benchmark their buildings in Portfolio Manager by 1/25/2008 using 2007 utility data.
- Winners receive cash prizes, and those qualifying for the ENERGY STAR label received free engineering certification
- Prizes include a private suite party at a Seattle Mariners game, tickets to the BOMA golf tournament, and a catered lunch for 12.



TAKE THE CHALLENGE AND FIND OUT

- Is your building beating the Seattle average? - Can you qualify for the marketing benefits of the ENERGY STAR® label? Can a historic property can be more efficient than a LEED certified development?















Washington DC's Co-branded Print Outreach



- Washington Post Express
- Examiner
- Washington City Paper
- Capital Community News
- Washington Informer
- Washington Sun
- Washington Hispanic (Spanish)
- Atref (Amharic)
- Asian Fortune (Vie, Kor, Chi)

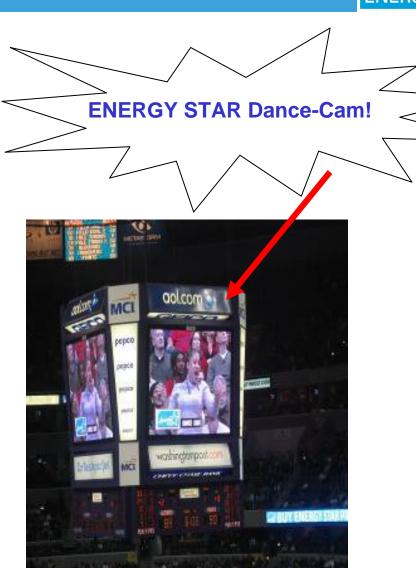




ENERGY STAR at the Wizards Game







Washington DC's Cool Capital Challenge



- Cool Capital Challenge competitors pledge to reduce the D.C. area's carbon gas emissions by 1 billion pounds in one year.
 - Started in early 2007 by volunteers from business, institutions, government agencies, congregations, and community and environmental organizations in the Metro Washington region.
 - Provides people with specific, positive, energy and money-saving best practices.
 - Structured like a capital campaign with contributions of carbon savings instead of cash.
 - So far, the Challenge has resulted in 266,269,940 lbs. of carbon saved and \$ 26,023,039 in energy savings.

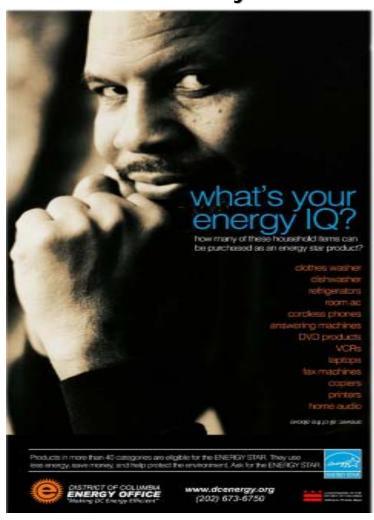


Cool Capital Float in the Silver Spring, MD Thanksgiving Parade

ENERGY STAR SIGNAGE



Cheesecake Factory Menu



Interior Bus Posters

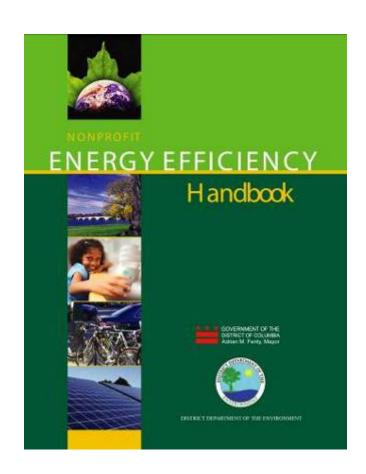


Exterior Bus Poster



DC's Nonprofit Energy Efficiency Handbook





- "EPA's ENERGY STAR
 Guidelines for Energy
 Management" will help
 administrators develop and
 implement a strategy to save
 energy and reduce their electricity
 bills.
- "ENERGY STAR Purchasing and Procurement" explains how to find ENERGY STAR products and includes an example of how to save money by using a computer's power management features.

One Potomac Yard Building in Arlington, VA



- Earned 85 and 82 EPA rating respectively
- LEED Gold certification





Arlington County Commissioner Paul Ferguson presents Benjamin Comm, Jones Lang LaSalle Managing Director, with a recognition certificate for the One Potomac Yard's ENERGY STAR label.

Case study at www.wbdg.org/references/cs_potomac.php

Blue Earth County Commissioners Board Meeting June 26, 2007





Blue Earth County, MN Outreach to Residents







Concert on the Courthouse Lawn Celebrating the ENERGY STAR Award



Efficient Electric Display



Historic Courthouse Tours