

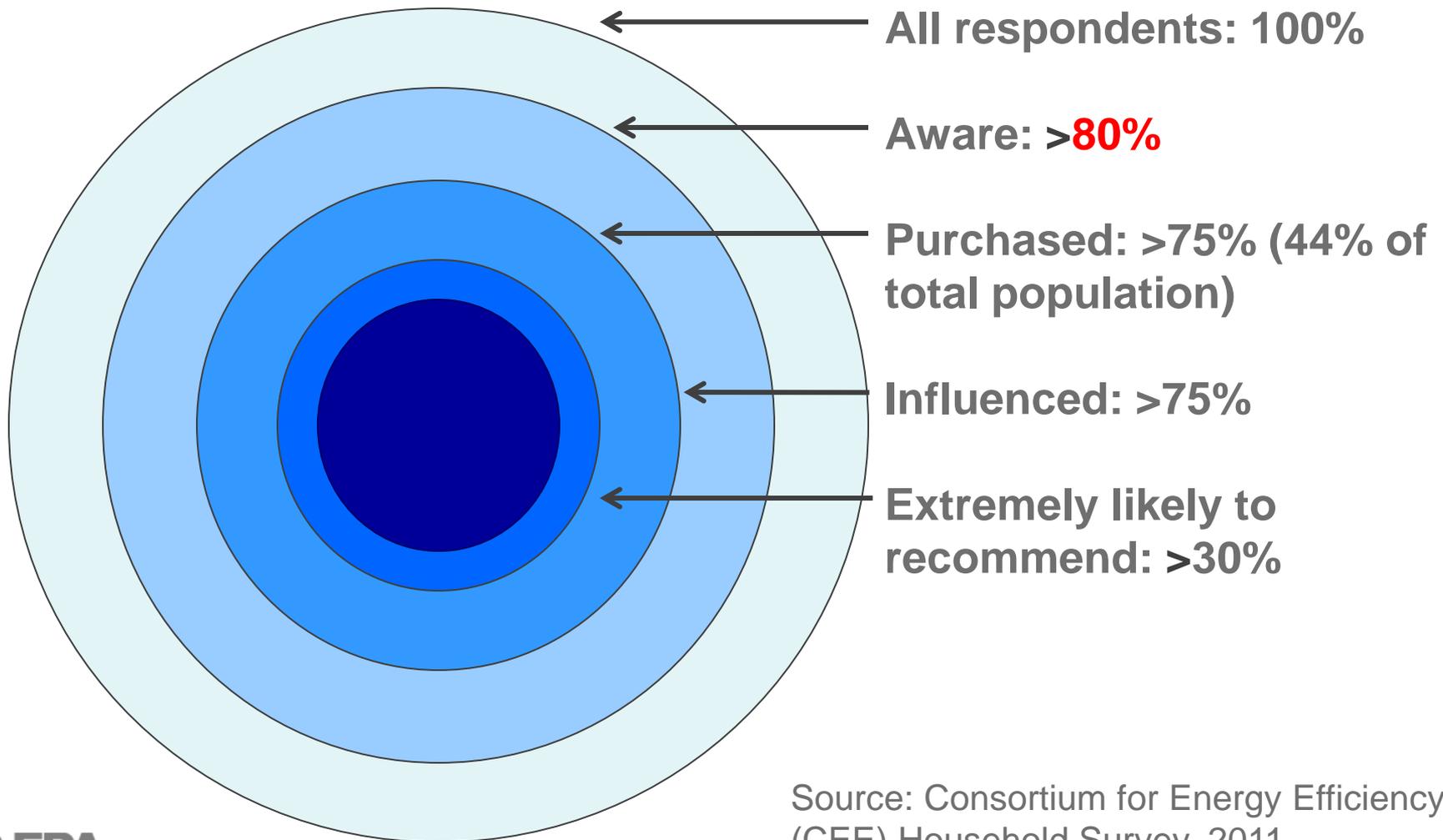
Getting the most out of **ENERGY STAR[®]** for your energy efficiency portfolio

ENERGY STAR Overview



- Voluntary, public-private partnership between EPA, DOE and nearly 20,000 partners
 - > 700 utility and state efficiency programs
 - > 2500 retailers
 - > 1700 manufacturers
 - > 5500 home builders
- Program goal is to reduce air pollution including greenhouse gas emissions by reducing energy use in homes and buildings
- Program has saved Americans ~\$24 billion on utility bills and avoided 242 million metric tons of greenhouse gas

The Power of the ENERGY STAR Brand



Source: Consortium for Energy Efficiency (CEE) Household Survey, 2011

Why ENERGY STAR Works



- **Credible** – recognized, trusted symbol – government backing provides objective, third-party information upon which businesses and homeowners can make informed decisions. Performance is verified by third parties
- **Market-based** – program works to identify market barriers to broader adoption of energy efficiency and develop strategies and related tools for overcoming barriers to alter decision making for the long-term
- **Financially smart** – consumers can save money on utility bills and businesses can make money selling efficient products and services
- **Environmentally beneficial** – reducing energy consumption helps individuals reduce their carbon footprint, organizations meet corporate sustainability goals, and states and utilities meet local mandates to reduce greenhouse gas emissions and control air pollutants such as mercury, SO_x and NO_x

ENERGY STAR Provides Market-based Strategies . . .



| Barriers (e.g.) | Strategies to reduce barriers (e.g.) |
|---|---|
| Lack of information | Consumer/end user outreach and education |
| Lack of demand | Education/consumer testimonials/case studies Coupling efficiency w/other benefits/features |
| Lack of availability of energy efficient product or service | Establish measurement standard Designate high performers as ENERGY STAR through collaborative process (as relevant) Recognize achievement Supply channel education |
| Higher first cost | Increase demand to drive costs lower over the long-term Consumer education on “two price tags” |

... Tailored for Each Market



NAME: PepsiCo Green Team

REVERSING GLOBAL WARMING BY: Empowering employees to help make their facilities and manufacturing processes more energy efficient.

SAVINGS SINCE 1991: \$179 million | 20 trillion Btu | 3 billion lbs. CO₂

NEXT PROJECT: Winning the softball championship



JOIN PEPSICO IN THE FIGHT AGAINST GLOBAL WARMING. One of thousands of organizations saving energy with help from EPA's ENERGY STAR. That means lower energy bills for PepsiCo and a cleaner environment for all of us. Your organization can be a part of the solution at energystar.gov.

Join Leona and Will in the Fight Against Global Warming.

They've joined over one million American families across the country living in ENERGY STAR® qualified homes.

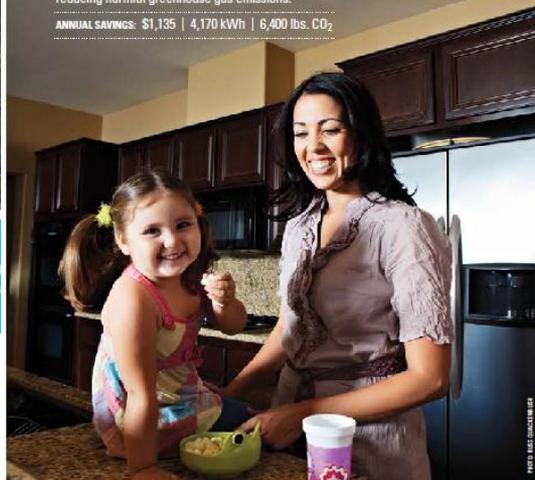
COLLECTIVE SAVINGS TO DATE: \$124 billion | 22 billion lbs. CO₂



Join the Atilano Family and EPA in the Fight Against Global Warming.

Lourdes and her family are choosing ENERGY STAR® qualified products for their home including appliances, lighting, and cooling equipment as simple ways to save energy, save money, and help protect the environment by reducing harmful greenhouse gas emissions.

ANNUAL SAVINGS: \$1,135 | 4,170 kWh | 6,400 lbs. CO₂

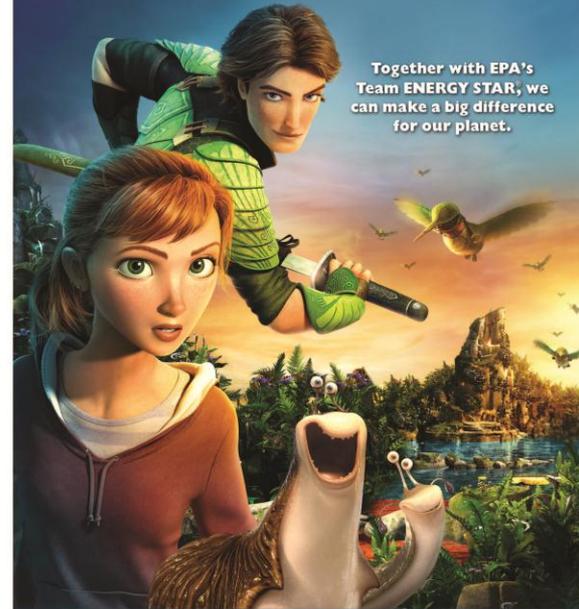


ENERGY STAR meets strict guidelines for energy efficiency. Lower utility bills, and reduce the greenhouse gas emissions. Learn more at energystar.gov.



JOIN THE EPIC FIGHT TO PROTECT THE CLIMATE.

Together with EPA's Team ENERGY STAR, we can make a big difference for our planet.



Help the heroic characters from EPIC protect the climate with EPA's Team ENERGY STAR. Learn how your family can save energy, save money, and earn exciting rewards. Visit energystar.gov/team today.



We can all do our part in helping to protect the environment by choosing products, homes, and buildings in our community that have earned the government's ENERGY STAR. Learn more at energystar.gov.

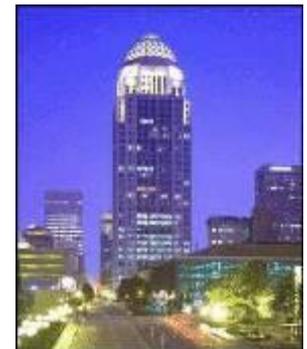
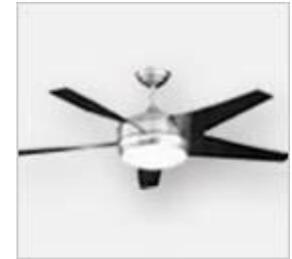


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Portfolio of Strategic Investments



- Residential initiatives
 - Change the World Start with ENERGY STAR, National Campaign
 - ENERGY STAR Products
 - ENERGY STAR Most Efficient
 - Home Performance with ENERGY STAR
 - ENERGY STAR HVAC Quality Installation
 - ENERGY STAR Homes
- Commercial initiatives
 - ENERGY STAR Products
 - ENERGY STAR Buildings
 - Building Performance with ENERGY STAR
 - Designed to meet the ENERGY STAR
- Industrial initiatives





ENERGY STAR

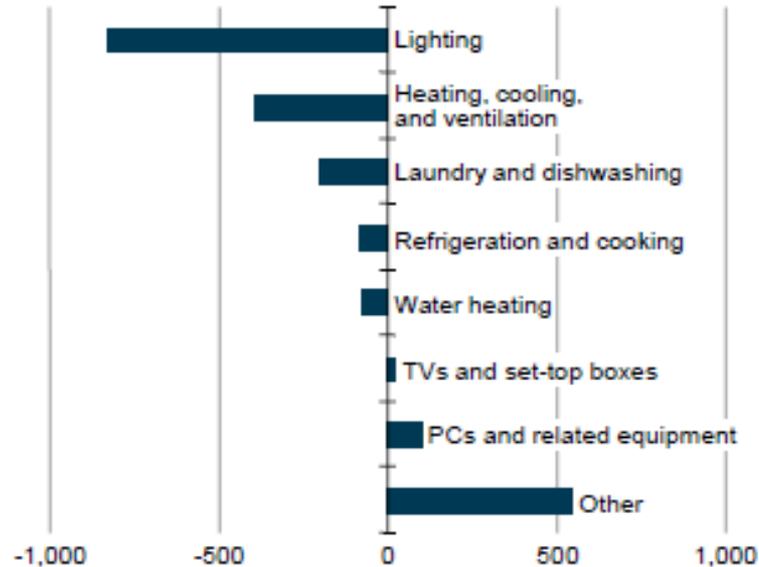
Residential Opportunities

Residential Energy Use



Electricity use increases with number of households despite efficiency improvement

Figure 75. Change in residential electricity consumption for selected end uses in the Reference case, 2010-2035 (kilowatthours per household)



EIA projects that primary energy use in the residential sector grows by 0.2 percent per year.

Source EIA Annual Energy Outlook 2012

Residential Opportunities for Energy Efficiency Program Sponsors



- **Education** on the full suite of ENERGY STAR opportunities:
 - Change the World, Start with ENERGY STAR campaign
 - Online tools
- Programs to increase supply and demand for **ENERGY STAR certified products** where market/cost justified.
- **Computer Power Management**
- Existing homes - **Home Performance with ENERGY STAR** and/or **HVAC Quality Installation**
- New homes - **ENERGY STAR Certified Homes**

Change the World, Start with ENERGY STAR



- National social marketing campaign and call to action to combat global warming
- Online pledge targets lighting, electronics, appliances and water heaters, heating and cooling, sealing and insulating, and home assessment
- Community outreach by partners featured in ENERGY STARs Across America map
- Complementary youth (8-15) focus
 - Partnership with Boys & Girls Clubs of America and DoSomething.org
 - Team ENERGY STAR
- ENERGY STAR Day



Online Pledge



- Efficiency program sponsors that become pledge drivers receive a unique URL
- EPA collects the pledge taker's first name, last initial, email and zip code
- Pledge taker's can opt-in to receive future correspondence

2013 ENERGY STARs Across America



- ENERGY STARs Across America illustrates a national movement of people and organizations committed to saving energy and protecting the climate
- Available resources include event toolkit, publications, and booth

CHANGE THE WORLD. Start with ENERGY STAR.
Make a change today to save energy and protect the climate. 2,870,785 individuals already have.

TAKE THE PLEDGE FIND HELPFUL RESOURCES BECOME A PLEDGE DRIVER SHARE YOUR STORY

Map View List View

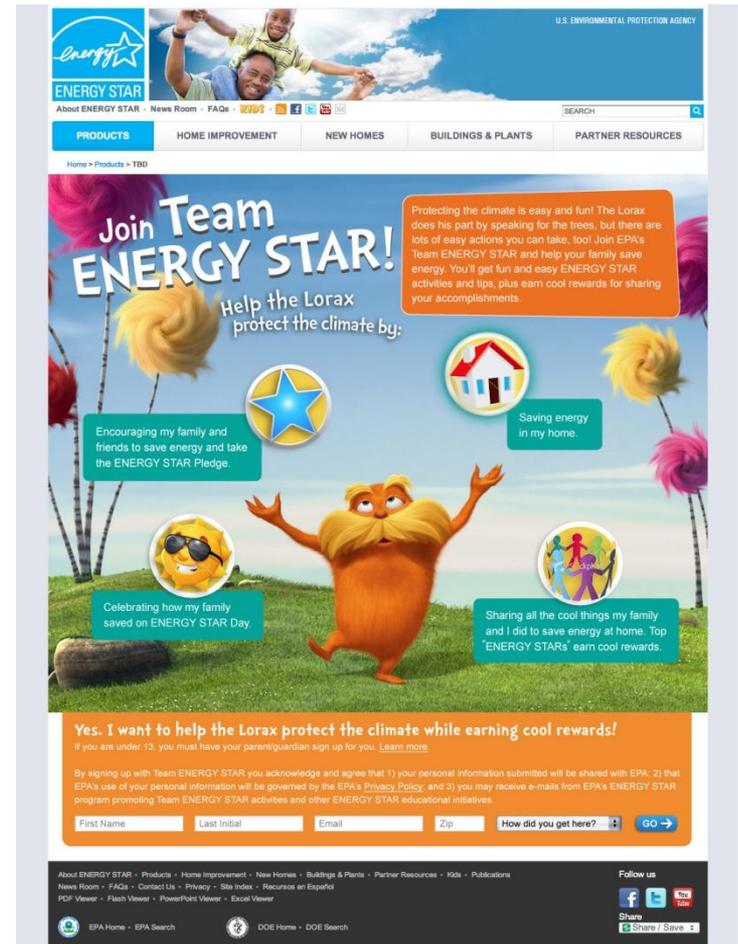
Current ENERGY STAR Activity: NHsaves is holding Open House on May 05, 2012 10:00AM - 4:00PM



Team ENERGY STAR



- Youth engagement as influencers to encourage their parents/other adults to save energy at home
 - Invite kids to join Team ENERGY STAR to help their households save energy. Specifically to commit to:
 - **Help to save energy in my home**
 - **Help my family and friends save energy and encourage them to take the ENERGY STAR Pledge**
 - **Share all the cool things my family and I did to save energy at home. Top ENERGY STARs earn cool rewards**
 - **Celebrate how my family saved on ENERGY STAR Day**



ENERGY STAR Day!



- Culmination of the campaign year
- A national final celebration of all that ENERGY STAR and its partners accomplished throughout the year
 - Held in November
 - Opportunity for youth across America to demonstrate their energy-saving accomplishments through a visible demonstration, e.g., sign on their door with savings, and share those accomplishments with EPA
 - EPA wraps up demonstrations in a national media story
- Media coverage:
 - Newsletters / Blogs / Facebook / Twitter / YouTube / Social Media pitching
 - On-line pitching
 - Local news pitching

Interactive Online Tools



- @Home Tool
- Home Energy Yardstick
- Home Advisor
- HVAC Quiz
- eMISSION



ENERGY STAR Asks:
Are you doing all you can to maintain your home's heating and cooling system?

Answer these questions to find out

| HAVE YOU: | YES | NO |
|---|-----------------------|-----------------------|
| Changed your air filter in the last 3 months? | <input type="radio"/> | <input type="radio"/> |
| Removed leaves, dirt, and other debris from around the outdoor components of your system? | <input type="radio"/> | <input type="radio"/> |
| Installed a programmable thermostat and programmed it properly? | <input type="radio"/> | <input type="radio"/> |
| Inspected your duct system for obvious signs of leaks and disconnects? | <input type="radio"/> | <input type="radio"/> |
| Had your heating and cooling equipment inspected by a professional in the last year? | <input type="radio"/> | <input type="radio"/> |

SUBMIT



NEW YORK STATE

Storm Center | Login | Contact LIPA

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- NEWS CENTER
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- EFFICIENCY
- MY HOME
- MY BUSINESS
- MY COMMUNITY
- CUSTOMER CARE
- MY ACCOUNT

welcome to Efficiency Long Island

[Home](#) » [Efficiency](#) » [Home Performance with ENERGY STAR](#) » [Consumers](#) » Home Energy Yardstick

- Clean Energy**
- ▢ Clean Energy Initiative
 - ▢ Commercial Construction
 - ▢ Cool Homes

Home Energy Yardstick

With today's high energy costs, homeowners want to know what they can do to save. Enter basic information about your home and your energy usage into the Home Energy Yardstick. Based on the information provided, you will get an energy score based on a 0-10 scale.



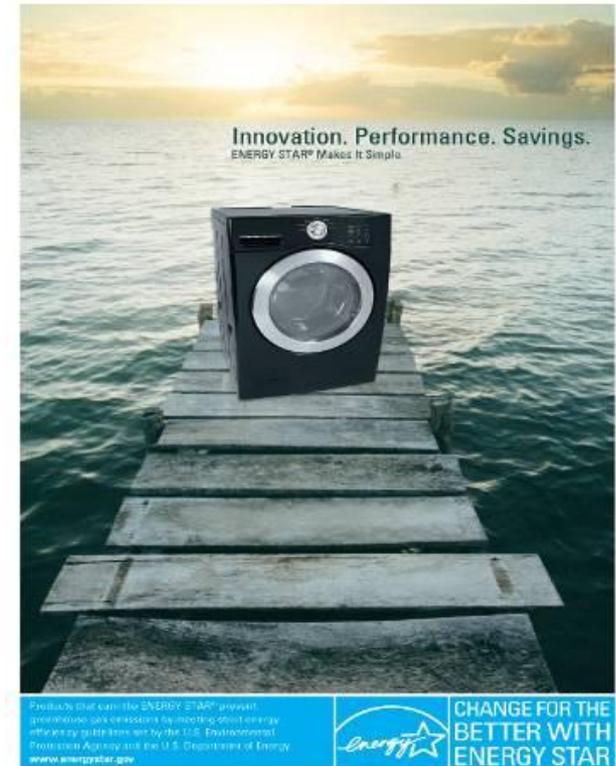
A small photograph in the top left corner shows a field of tall green grass with several bright red flowers, possibly poppies, under a clear blue sky.

ENERGY STAR Certified Products

ENERGY STAR Certified Residential Products



- **Appliances:** Clothes Washers, Dehumidifiers, Dishwashers, Freezers, Refrigerators, Air Cleaners, Water Coolers
- **Consumer electronics:** Audio/Video, Battery Chargers, Computers, Cordless Phones, Displays, Imaging Equipment, Set-Top Boxes, Telephony, TVs, Uninterruptible Power Supplies
- **Heating and cooling:** Central AC, Boilers, Ductless Heating and Cooling, Furnaces, Heat Pumps, Room AC, Ventilating Fans
- **Home Envelope:** Home Sealing, Roof Products, Windows/Doors, Seal and Insulate
- **Lighting:** CFLs, Ceiling Fans, Decorative Light Strings, Integrated LED Lamps, Lamps, Luminaires
- **Plumbing:** Water Heaters
- **Other:** Pool pumps



Upcoming Residential Product Revisions/Additions



- Product Revisions in Progress:
 - Audio/Video
 - Battery Charging Systems
 - Boilers
 - Clothes Washers
 - Computers, Computer Servers
 - Displays
 - Imaging
 - Refrigerators and Freezers
 - Roof Products
 - Room Air Conditioners
 - Set-top Boxes
 - Telephony
 - Televisions
 - Water Coolers
 - Water Heaters
 - Windows, Doors and Skylights
- New Products in Progress:
 - Climate Controls
 - Clothes Dryers
 - Game Consoles
 - Lamps
- Potential New Products:
 - Home Storage
 - Home Energy Monitors/Controls

The Energy Independence and Security Act (EISA) and Lighting Savings



- **Still significant savings:** Today's ENERGY STAR certified lighting products provide significant energy savings above EISA standards, which phase in from 2012 to 2014.
- **Changing baselines:** Per unit energy savings decrease due to changing baselines; need to determine how to account for lifetime savings during the transition period.

| Today's Standard Lamps (Baseline) | EISA Effective Dates | EISA's Intended Replacement Lamps (New Baseline) | Typical ENERGY STAR Qualified Lighting Replacement Option | Savings Over the New Baseline |
|---|----------------------|--|---|-------------------------------|
| 40 W incandescent (approx. 490 lumens) | 2014 | 29 W (310-749 lumens) | 9 – 11 W CFL (440 – 600 lumens) | 18 – 20 W |
| 60 W incandescent (approx. 840 lumens) | 2014 | 43 W (750 – 1049) | 13 – 15 W CFL (750 – 900 lumens) | 28 – 30 W |
| 75 W incandescent (approx. 1,190 lumens) | 2013 | 53 W (1050 – 1489) | 18 – 20 W CFL (1,100 – 1,300 lumens) | 33 – 35 W |
| 100 W incandescent (approx. 1,690 lumens) | 2012 | 72 W (1490 – 2,600) | 23 – 26 W CFL (1,600 – 1,800 lumens) | 46 – 49 W |

FTC Labeling Requirement



New Front Package Label

| | |
|----------------------|------------------------------|
| <u>Brightness</u> | <u>Estimated Energy Cost</u> |
| 820 lumens | \$7.23 per year |

New Back Package Label

| | | |
|--|-------------------|--|
| Lighting Facts Per Bulb | | Light Appearance |
| Brightness | 870 lumens | Warm Cool |
| Estimated Yearly Energy Cost | \$1.57 | 2700 K |
| Based on 3 hrs/day, 11¢/kWh Cost depends on rates and use | | Contains Mercury |
| Life Based on 3 hrs/day | 5.5 years | For more on clean up and safe disposal, visit epa.gov/cfl . |
| Energy Used | 13 watts | |

Existing FTC Label



Activating Sleep Settings at Home Computers



- Power management automatically places inactive computers into a low-power “sleep” mode
- **A few mouse clicks and residents can save up to \$50 annually per desktop computer.**
- ENERGY STAR can help:
 - Outreach material
 - On-line instructions
 - www.energystar.gov/sleepinstructions
 - Savings calculations

The screenshot shows the ENERGY STAR website page for activating power management on a computer. The page features a navigation bar with 'PRODUCTS', 'HOME IMPROVEMENT', 'NEW HOMES', and 'BUILDINGS & PLANTS'. The main content area is titled 'Activate Power Management on Your Computer' and includes a breadcrumb trail: 'Home > Products > Low Carbon IT Campaign > Individual Computers'. The text explains that most users have their monitors set to enter a low-power sleep mode, but the computer itself is rarely set to enter this mode. It provides instructions to click on the operating system listed below and follow the instructions. A list of operating systems is shown: Microsoft Windows XP, Microsoft Windows Vista, Microsoft Windows 7, and Mac OS. Below the list, there is a photo of a woman and a child sitting at a desk with a computer. The page also includes a 'You will:' section with three bullet points: 'Save up to \$50 annually on your electricity bills', 'Save time by eliminating the daily wait to reboot since you do not have to turn your computer off manually', and 'Help the environment by reducing air pollution associated with the burning of fossil fuels'. A note at the bottom states: 'Please note: Computer users requiring remote access to their desktops (via Remote Desktop, for instance) should only activate monitor sleep setting as the computer may be able to remotely "wake" computers from sleep mode.'

ENERGY STAR Most Efficient



- 2013 list of recognized products is
- Send an email to mostefficient@energystar.gov to request access to the graphic files.
- For usage guidelines go to: www.energystar.gov/mostefficient

Residential Products – Tools & Resources



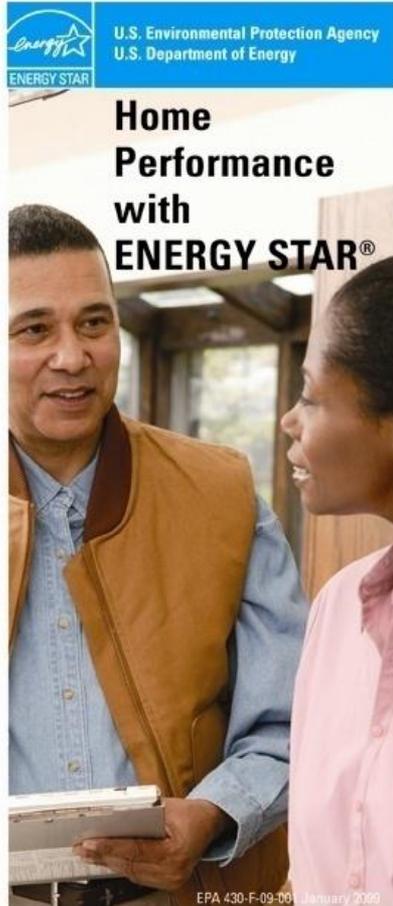
- Performance specifications
 - Roughly target top 25% energy performance when setting specifications
 - No sacrifice in performance or features
 - Negotiated through public process
- Consumer-oriented resources
 - Marketing templates
 - Training center for sales associates and others
 - Consumer tips and education tools
 - Consumer assistance tools including special deals finder, store locator, qualifying product lists
- Partner assistance
 - Networking and matchmaking
 - Database to exchange marketing and incentive information
 - Program best practices and peer exchange

Visit: www.energystar.gov/index.cfm?c=pt_univ.pt_univ_eeps_trainoverview

A photograph in the top left corner shows a man and a woman smiling and looking at each other across a table. The man is wearing a red shirt and the woman is wearing a blue denim jacket.

Home Performance with ENERGY STAR

Home Performance with ENERGY STAR



- A whole-house approach for existing homes
- Utility bill savings of 20% or more. Typically from
 - ✓ Sealing air leaks
 - ✓ Adding insulation
 - ✓ Upgrading heating and cooling systems
 - ✓ Replacing lighting and appliances
 - ✓ Installing high-performance windows
- Energy Efficiency Program Sponsors help
 - Increase supply of qualified auditors/assessors and contractors
 - Increase demand for whole-house upgrades through consumer outreach and financial and other incentives
 - Ensure quality through QA/QC practices
- Homeowners invest in improvements based on credible information

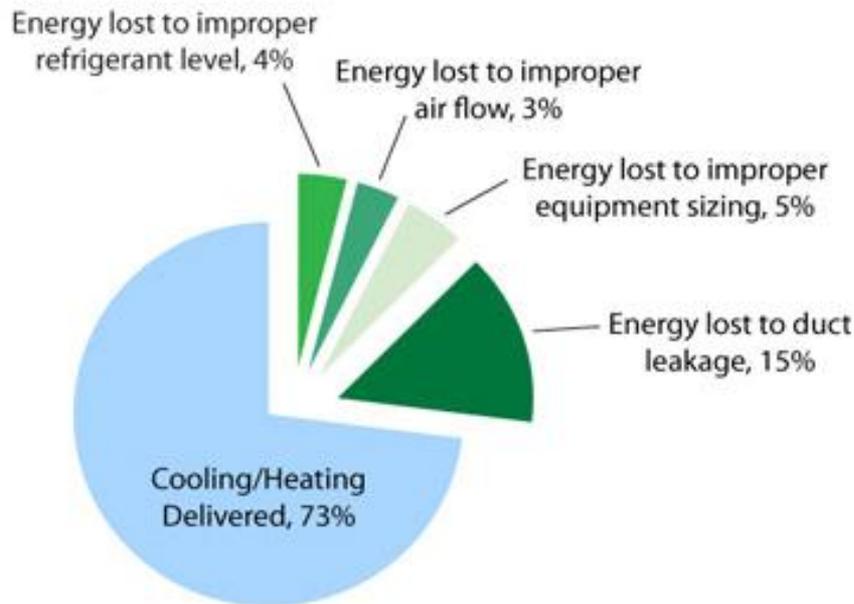


ENERGY STAR HVAC Quality Installation

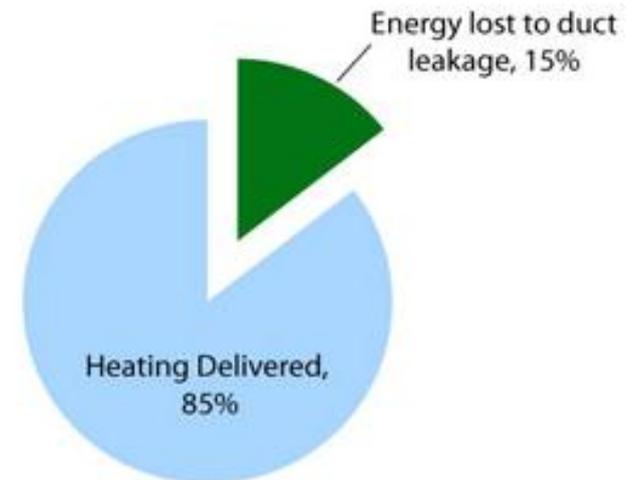
HVAC System Energy Use



Typical Air Conditioner or Heat Pump Installation



Typical Furnace Installation



Quality installations help deliver the equipment's full potential.

ENERGY STAR HVAC Quality Installation Overview



WHAT IS ENERGY STAR?

ENERGY STAR is the government-backed program that helps us all to save money and protect our environment with energy-efficient products and practices. Whether you are looking to replace old appliances, remodel your home, or buy a new house, ENERGY STAR can help.

More than 50 kinds of products, including lighting, appliances, televisions, computers, heating and cooling equipment, and even new homes, can earn the ENERGY STAR label.

ENERGY STAR also offers best practice solutions, like HVAC quality installation and home sealing, that can make your home more comfortable and reduce your energy costs.

For more information
CALL 888-STAR-YES

LEARN MORE AT
energystar.gov

The ENERGY STAR Quality Installation program is available to SCE residential customers who have a new air conditioner or heat pump installed by a participating program contractor.

EDISON
SOUTHERN CALIFORNIA ELECTRICITY SERVICE

For more information, please visit our website at www.ac-quality.com.

contractor logo and contact information

ENERGY STAR® QUALITY INSTALLATION:
CENTRAL HEATING & AIR CONDITIONING

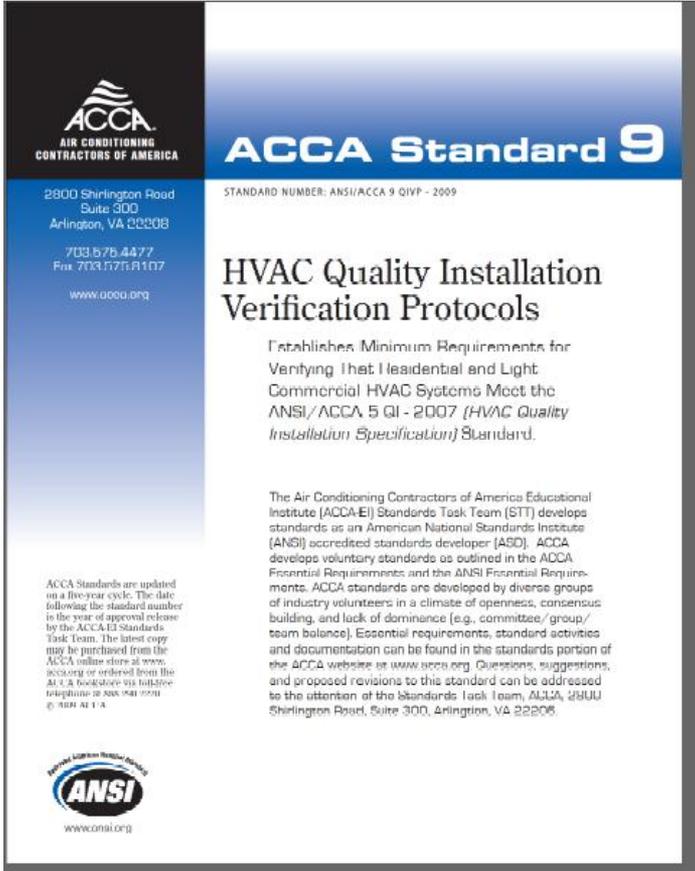
A photograph of a woman and a young child sitting on a white wooden chair, reading a book together. The woman is wearing a yellow top and the child is wearing a white top.

U.S. Environmental Protection Agency and U.S. Department of Energy logos.

- A comprehensive approach to improving the performance and energy efficiency of home heating and cooling systems
- Helps homeowners identify contractors who properly install systems
- Technical requirements
 - Correctly sized and matched equipment based on load calculations
 - Connected, well-sealed duct system (maximum leakage 20% or 50% reduction in leakage)
 - Proper refrigerant charge
 - Sufficient airflow in the system

ENERGY STAR HVAC Quality Installation Verification

- Contractor submits commissioning form and load calculations for each installation
- Program sponsor provides third-party verification
 - File review for all installations
 - In-field verification for a sampling of installations
 - Phase 1: 3 of the first 5 jobs completed by a new contractor
 - Phase 2: 20% of the next 25 jobs
 - Phase 3: 5% of the subsequent installations



ACCA
AIR CONDITIONING CONTRACTORS OF AMERICA

2800 Shirlington Road
Suite 300
Arlington, VA 22208

703.576.4477
Fax: 703.576.8107

www.acca.org

ACCA Standard 9

STANDARD NUMBER: ANSI/ACCA 9 QIVP - 2009

HVAC Quality Installation Verification Protocols

Establishes Minimum Requirements for Verifying that Residential and Light Commercial HVAC Systems Meet the ANSI/ACCA 9 QI - 2007 (*HVAC Quality Installation Specification*) Standard.

The Air Conditioning Contractors of America Educational Institute (ACCA-EI) Standards Task Team (STT) develops standards as an American National Standards Institute (ANSI) accredited standards developer (ASD). ACCA develops voluntary standards as outlined in the ACCA Essential Requirements and the ANSI Essential Requirements. ACCA standards are developed by diverse groups of industry volunteers in a climate of openness, consensus, building, and lack of dominance (e.g., committee/group/team balance). Essential requirements, standard activities and documentation can be found in the standards portion of the ACCA website at www.acca.org. Questions, suggestions, and proposed revisions to this standard can be addressed to the attention of the Standards Task Team, ACCA, 2800 Shirlington Road, Suite 300, Arlington, VA 22208.

ACCA Standards are updated on a five-year cycle. The date following the standard number is the year of approval release by the ACCA-EI Standards Task Team. The latest copy may be purchased from the ACCA online store at www.acca.org or ordered from the ACCA bookstore via toll-free telephone at 888.941.9911 © 2009 ACCA

ANSI
American National Standards Institute
www.ansi.org

Available for free at:
www.energystar.gov/ia/home_improvement/home_contractors/QI_Verification_Protocols.pdf

HVAC Quality Installation – Tools & Resources



- Program design and implementation support
- Implementation Guide
- Sample program documents and forms
- Contractor training covering both technical and marketing topics
- Marketing materials
- Training and technical support



Visit: www.energystar.gov/index.cfm?c=hvac_install.hvac_install_sponsors



ENERGY STAR Certified Homes

ENERGY STAR Certified Homes Overview



Core Energy Efficiency Measures



| System Inspection Checklists | |
|--|---|
| Complete Thermal Enclosure System | High-quality insulation & fenestration Proper installation & air sealing Reduced thermal bridging |
| Complete Heating & Cooling System | Fully-engineered design Best practice installation Fresh air & exhaust |
| Complete Water Management System | Water-managed site, foundation, walls, and roof |

Value of ENERGY STAR Certified Homes



ENERGY STAR Homes

- Delivers approximately 20% savings on annual utility bills

Features:

- ✓ A complete thermal enclosure system
- ✓ A complete heating and cooling system
- ✓ A complete water management system
- ✓ Energy-efficient lighting and appliances
- ✓ Third-party Verification

Benefits:

- ✓ Lower Utility Bills
- ✓ Enhanced Performance
- ✓ Environmental Protection

ENERGY STAR Certified Homes – Tools & Resources



- **Marketing tools**
 - Consumer and Builder brochures
 - Fact sheets
 - Promotional opportunities
- **Technical resources**
 - Performance and prescriptive guidelines
 - Reference codes and standards
 - Verification guidance
- **Educational resources**
 - Sponsor quarterly update emails
 - Program Design and Implementation Best Practices Guide
 - Webinars and HVAC videos
 - Builder recruitment handbook
 - Customizable presentation templates
- **EPA and account management support**

ENERGY STAR® for New Homes Sponsor and Utility Partner Guide



ENERGY STAR® Certified Home Features Energy efficiency guidelines set by the U.S. Environmental Protection Agency (EPA)

INDEPENDENT INSPECTIONS AND TESTING



When you're choosing a new home, you want to know it will be as comfortable, durable, and energy efficient as possible. With an ENERGY STAR certified home, you'll know that you've made a good decision for you and your family. Homes that earn the ENERGY STAR stand above other homes because they must meet stringent energy efficiency requirements set by EPA. The better performance and better quality built into every ENERGY STAR certified home is independently inspected and tested by a Home Energy Rater. Home Energy Raters work with ENERGY STAR builder partners throughout the construction process to ensure that—

- Your new home has the appropriate energy-efficient features that fit your climate region.
- Critical construction details are verified at different building stages.
- The key systems in your new home are working properly to deliver better efficiency, durability, and comfort.

When builders work with Home Energy Raters to meet rigorous ENERGY STAR requirements, you get an energy-efficient home built better from the ground up—a better approach to building a better home.

SELECTING APPROPRIATE ENERGY-EFFICIENT FEATURES

Before construction begins, ENERGY STAR builder partners submit their home plans to a Home Energy Rater for review and analysis to determine the precise energy-efficient features to include in the home. Raters are specially trained and qualified in advanced, energy-efficient construction techniques to advise builders on how to select and install the most appropriate features for their ENERGY STAR certified homes. This means you get a home that is specially designed to operate efficiently in your region of the country.

CONDUCTING ONSITE INSPECTIONS AND TESTING

Raters conduct important onsite inspections and tests of homes built to earn the ENERGY STAR to ensure they meet rigorous program requirements. This inspection process follows a set of comprehensive ENERGY STAR checklists

designed to deliver better efficiency, comfort, quality, and durability. A Rater will inspect an ENERGY STAR certified home at different stages of the construction process to verify critical details before they are "hidden" behind the walls.

Thermal Enclosure Inspections – ENERGY STAR certified homes are designed and built with a complete thermal enclosure that acts as a barrier to effectively keep the cold out during winter and the heat in during summer so your home is comfortable all year long. Raters conduct a series of inspections to verify the thermal enclosure is constructed to reduce unwanted leaks and drafts (as well as pollen, pests, dirt, and noise) by making sure that gaps, cracks, and other openings in the house are fully sealed. In addition, the Rater performs a blower door test to ensure that your home meets the comprehensive air sealing requirements of the ENERGY

New Marketing Platform



“Better is Better”

- Peace of Mind
- Enduring Quality
- Wall to Wall Comfort
- Proven Value



ENERGY STAR Commercial Opportunities

Commercial Energy Use

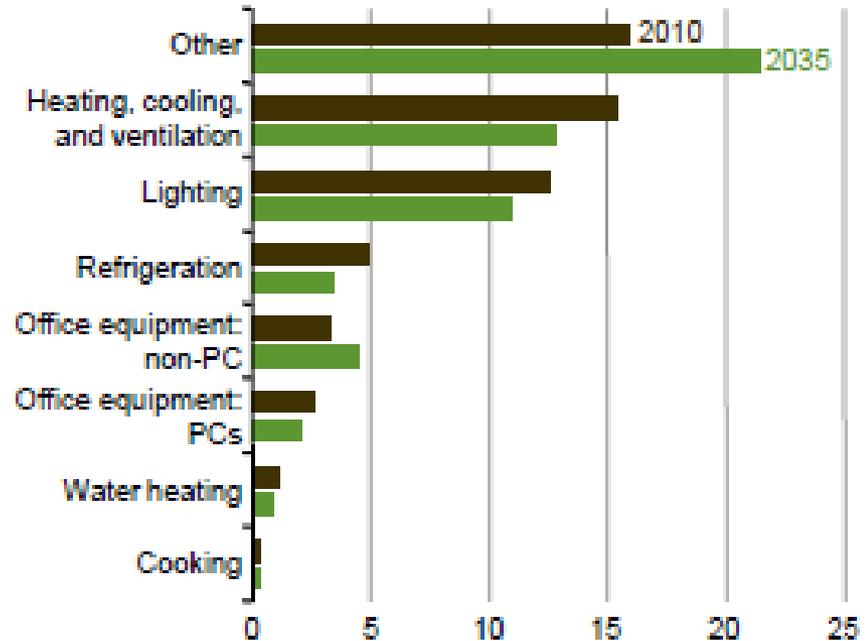


- EIA projects energy use in commercial buildings to be the fastest growing sector (0.7% annual growth); commercial floor space is estimated to grow by 1.0% per year.

(US EIA Annual Energy Outlook 2012)

Efficiency standards reduce electric energy intensity in commercial buildings

Figure 79. Energy intensity of selected commercial electric end uses, 2010 and 2035 (thousand Btu per square foot)



Commercial Opportunities for Program Sponsors



- **Education** on the full suite of ENERGY STAR opportunities:
 - ENERGY STAR Challenge
 - Bring Your Green to Work
- Programs to increase supply and demand for **ENERGY STAR certified products** where market/cost justified.
- **Low Carbon IT**
- **Commercial Food Service** equipment
- **Existing and new buildings**—emphasis on whole-building efficiency improvements and strategic energy management

National Building Competition



- National Call to Action
 - go head-to-head with thousands of buildings to reduce energy waste
- Benchmark Buildings
 - take improvement action
- Improve Energy Performance
 - Prioritize and implement cost-saving measures
 - Engage tenants to help save energy
- Learn from Others



Visit: www.energystar.gov/battleofthebuildings

Bring your Green to Work



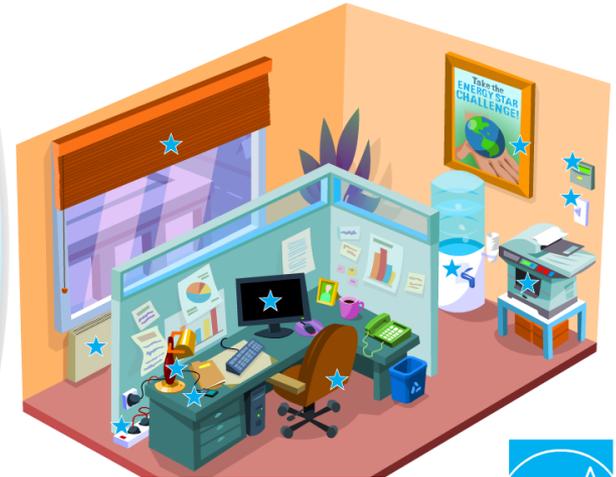
- Animated web tools
- Engage customers and co-workers
- Encourage efficiency through Green Team competitions

Bring Your GREEN TO WORK with ENERGY STAR®

The small steps you take at work to save energy can make a big difference in the fight against global warming.

Organizations across the country are working with EPA to improve the energy performance of the buildings where we work, shop, play and learn. You can help!

Click on the blue stars to learn more and start saving energy today.



ENERGY STAR® Green Team Checklist

One person cannot do it all! So when it comes to making your workplace greener and more energy efficient, recruiting teams a team. The Environmental Protection Agency (EPA) has learned from ENERGY STAR partners that forming a green team with coworkers is a great way to help increase energy efficiency and reduce office waste.

Consider the following checklist of creative ideas from EPA to help your green team get started. Once you've formed your team, start by planting the seeds for success with small changes in individual workspaces. Then move through the list and help success bloom with larger changes that can affect the whole organization. Together, these actions can help your green team build a better world!

STEP 1: GET ORGANIZED

- Start Off Right**—Meet with management to get approval and buy-in for the idea of forming a green team. Not only does support from management add legitimacy to your team, some of the measures needed to "green" your workplace might require an investment of time, money, or both by your organization.
- Recruit from A-Z**—Encourage coworkers from different levels and parts of your organization—from senior management and interns to facility managers and human resources personnel—to get involved. A team approach inspires buy-in from all levels of the organization, which helps to ensure greater support and success.
- Kick It Off**—Organize a kickoff meeting to develop a plan of action—the suggestions below are a great place to start. Another great resource is EPA's [How to Get Started](#) guide, which provides step-by-step instructions for forming an energy team—many of which apply to green teams too—as well as real-world examples from other businesses and organizations committed to saving energy, saving money, and fighting global warming.

STEP 2: PLANT THE SEEDS OF SUCCESS

- Spread the Word**—Order copies of the Bring Your Green to Work with ENERGY STAR® [tip card](#) and share them with your coworkers, display the Bring Your Green to Work with ENERGY STAR® posters in break rooms or other common areas, and share the link to the ENERGY STAR® [Web site](#) throughout your work.
- Go It a Round**—Use the ENERGY STAR® [power management settings](#) on computers and monitors as they go into power save mode when not in use. Also use a power strip as a central "turn off" point whenever you are using equipment to completely disconnect the power supply.
- Unplug It**—Unplug electronics such as cell phones and laptops once they are charged. Adapters plugged into outlets use energy even if they are not charging.
- Light It Up, You Will!**—Encourage your coworkers to replace the incandescent light bulb in their desk lamp with an ENERGY STAR® compact fluorescent bulb. It will last up to 10 times longer and use about 75 percent less energy. Turn off the lights whenever you and your coworkers leave, especially at the end of the day.
- Let It Flow**—Keep air vents clear of paper, files, and office supplies so air can circulate freely. It takes as much as 25 percent more energy to pump air into the workspace if the vents are blocked.

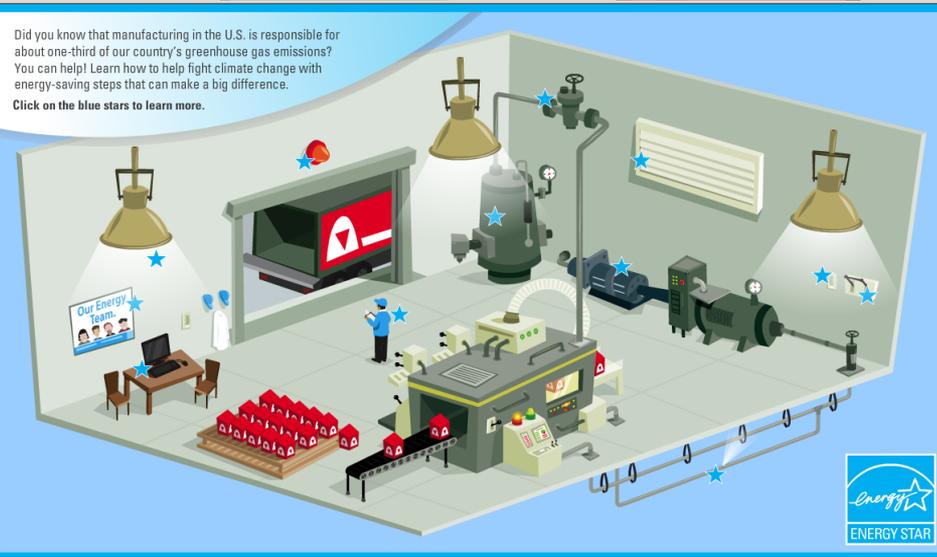
ENERGY STAR® is a U.S. Environmental Protection Agency program helping businesses and individuals fight global warming through superior energy efficiency.



LEARN MORE AT energystar.gov

Did you know that manufacturing in the U.S. is responsible for about one-third of our country's greenhouse gas emissions? You can help! Learn how to help fight climate change with energy-saving steps that can make a big difference.

Click on the blue stars to learn more.





ENERGY STAR Certified Products

ENERGY STAR Certified Office/IT Products



- Computers
- Copiers and fax machines
- Digital duplicators
- Monitors/displays
- Printers, scanners, and all-in-ones
- Enterprise servers
- Uninterruptible Power Supplies
- Data Storage (coming soon)
- Networking Equipment (coming soon)



ENERGY STAR Low Carbon IT



- Help businesses power manage their computers
 - Network tools for organization-wide activation of sleep settings
 - Complete trouble shooting information
 - Custom outreach materials
 - No-cost technical consultation with IT experts
- Help data centers become more energy efficient
 - Guidance implementing a data center focused utility energy-efficiency program
 - Top 12 data center retrofit strategies for IT, air flow management, and HVAC
 - ENERGY STAR Building Qualification for Data Centers
 - ENERGY STAR certified data center products – servers and UPSs, (coming soon data storage and networking equipment)
- Go to www.energystar.gov/lowcarbonit

Data Centers – Energy Savings Opportunities



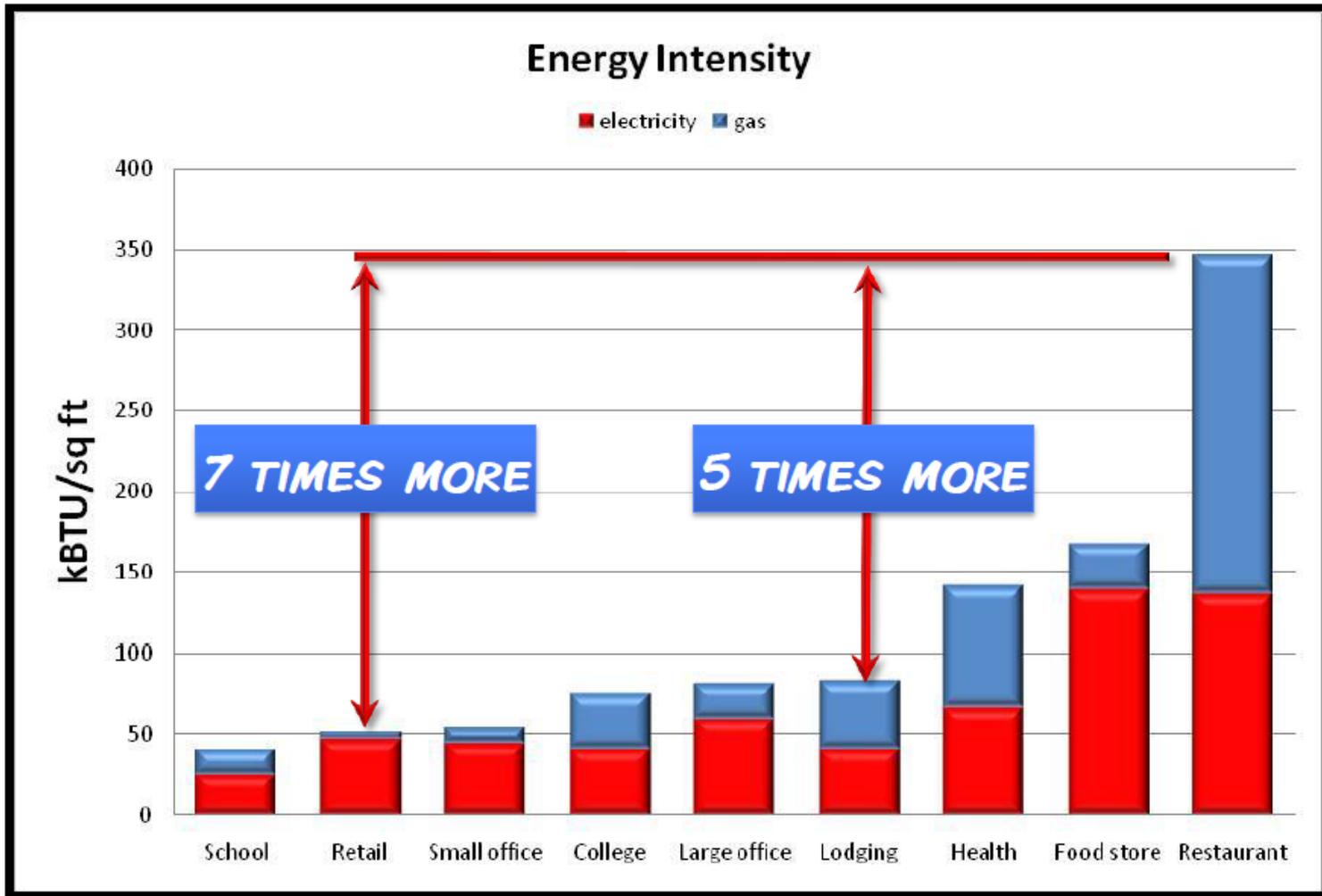
- **Cooling systems** can be improved through premium efficiency equipment such as chillers, pumps, fans, cooling towers, and ultrasonic humidifiers; use of variable speed fans; installation of air or water-side economizers; and improved air flow management.
- **Power delivery and conditioning** can be improved with use of premium efficiency UPS and distribution transformers, and direct current power systems.
- **IT equipment** can be improved by upgrading with an ENERGY STAR-qualified or other premium efficiency product, virtualizing and consolidating servers and data storage equipment

***Draft* Guide on rate-payer funded data center efficiency programs**



- Characterizes data center market
- Highlights energy savings opportunities
- Overviews programs throughout the country
- Discusses market barriers and strategies
- Discusses program challenges and go to market strategies

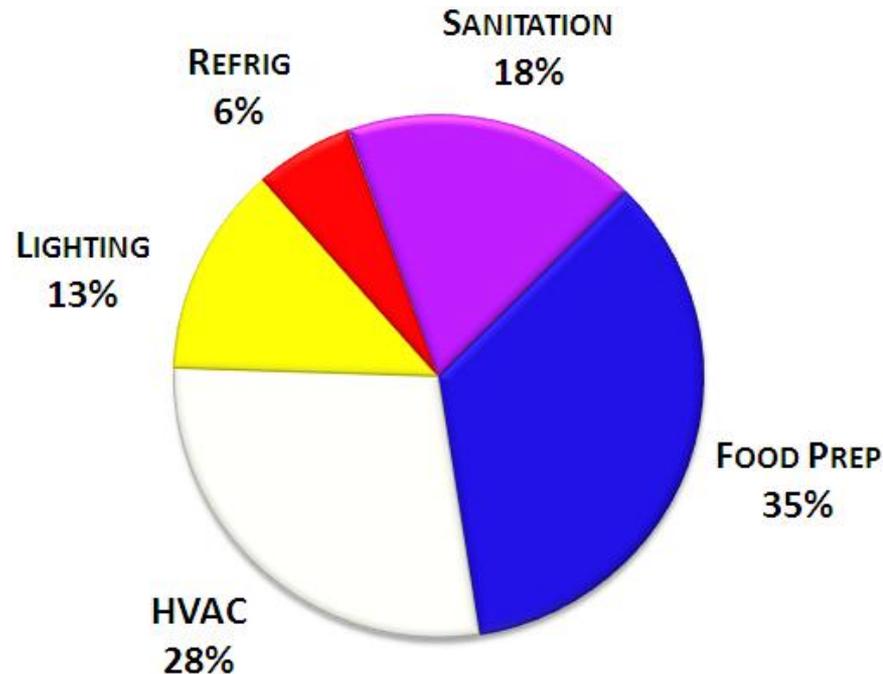
Commercial Food Service (CFS) Energy Use



Restaurant Energy Consumption



Energy use in restaurants is dominated by food preparation



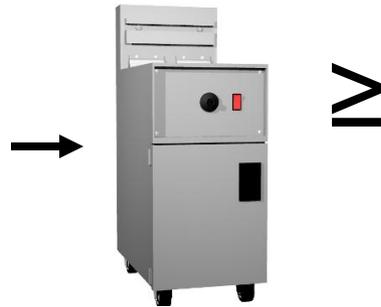
An example of how energy (BTU) is consumed in a typical full service restaurant

French Fries Have a Huge Energy Cost



- A single appliance can consume more than a home!

A typical electric deep fat fryer uses more than **18,000 kWh** annually



IV

Conventional fryer

The average U.S. household electricity use is approximately **13,000 kWh** annually



Range of CFS Incentives Offered by Utilities



| Product | Incentive Range |
|----------------------------|-----------------|
| Dishwashers | \$20 – \$3,000 |
| Fryers | \$66 – \$1,350 |
| Griddles | \$25 – \$600 |
| Hot food holding cabinets | \$110 – \$900 |
| Ice machines | \$18 – \$850 |
| Ovens | \$100 – \$1,000 |
| Refrigerators and freezers | \$20 – \$1,975 |
| Steam cookers | \$40 – \$2,000 |

Please note that utility programs can change. Please contact your utility to ensure the program is still in effect before purchasing your equipment.

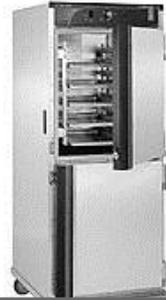


ENERGY STAR Certified CFS Equipment - Annual Savings (kWh)



590 kWh (refrigerators);
1,860 kWh (freezers)

**Refrigerators and
Freezers**



3,200 to
9,300 kWh

**Hot Food Holding
Cabinets**



80 MBtu +
48,000 gal. H₂O

Dishwashers



30 MBtu or
1,870 kWh

Ovens



15 MBtu or
2,270 kWh

Griddles



50 MBtu or
1,100 kWh

Fryers



130 MBtu or 11,500
kWh + 160,000 gal. H₂O

Steam Cookers



1,400 kWh
2,750 gal. H₂O

Ice Machines

MBtu = 1 million British thermal units; kWh = kilowatt-hour



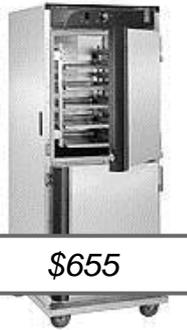
Source: U.S. Environmental Protection Agency

ENERGY STAR Certified CFS Equipment - Annual Savings (\$)



\$55 - \$70(refrigerators);
\$175 - \$320 (freezers)

**Refrigerators and
Freezers**



\$655

**Hot Food Holding
Cabinets**



\$720

Dishwashers



\$190 (electric);
\$360 (gas)

Ovens



\$190 (electric);
\$175 (gas)

Griddles



\$100 (electric);
\$470 (gas)

Fryers



\$1,100 - \$1,200
(electric or gas)

Steam Cookers



\$130

Ice Machines



- Actual energy savings may vary based on equipment use and other factors.
- 2011 EPA savings figures

ENERGY STAR Certified CFS Equipment - Average Lifetime Cost Savings



12 year life
\$500 – 650 (refrigerators);
\$1,650 – \$3,000 (freezers)

**Refrigerators and
Freezers**



12 year life
\$ 6,150

**Hot Food Holding
Cabinets**



20 year life
\$5,850 – \$9,750

Dishwashers



12 year life
\$1,800 (electric);
\$3,400 (gas)

Ovens



12 year life
\$1,800 (electric);
\$1,650 (gas)

Griddles



12 year life
\$950 (electric);
\$4,400 (gas)

Fryers



12 year life
\$10,350 (electric);
\$11,500 (gas)

Steam Cookers



8 year life
\$900

Ice Machines



- Actual energy savings may vary based on equipment use and other factors.
- Lifecycle cost savings based on a 4% discount rate



Overview of Improved Efficiency with ENERGY STAR

| Product Type | % Improved Efficiency* |
|----------------------------|-------------------------------------|
| Dishwashers | 25% (+ 25% more water efficient) |
| Fryers | 30% |
| Griddles | 10-25% |
| Hot Food Holding Cabinets | 65% |
| Ice Machines | 15% (+10% more water efficient) |
| Ovens | 10-25% |
| Refrigerators and Freezers | 30% |
| Steamers | 60% |

ENERGY STAR Certified CFS Equipment – Tools & Resources



- CFS Program Sponsor Guide for Utilities
 - Best practices
 - Utility experiences
 - Levelized cost of conserved energy estimates
- Marketing & Outreach Support
 - Publicity through program communications
 - Facilitated contact w/ state restaurant associations
 - Online CFS Incentive Finder (www.energystar.gov/cfs/incentives)
- Education & Training
 - ENERGY STAR Restaurant Guide and Fact Sheets
 - Case Studies
 - Quarterly Newsletter
- Technical Support
 - Savings calculators
 - Strategic support for addressing market barriers

DELIVERING SOLUTIONS IN COMMERCIAL KITCHENS

From the installation of energy-efficient equipment in commercial kitchens is an important part of a comprehensive CFS program. It saves a significant amount of energy and offers meaningful financial benefits to the establishment. Utility cost is an ongoing operating expense for the CFS industry, on the level of about one-half to three-quarters of the total profit margin—well in front of other service businesses and beyond government's reach. Due to rising energy costs, CFS customers may be more receptive to program administrator assistance for improving energy efficiency and reducing their utility bills. And the savings opportunities are significant, as much as 10 percent of the food service sector's \$10 billion annual energy bill is composed of energy that does no useful work and is a substantial portion of this waste is related to equipment inefficiencies.

ENERGY STAR provides a comprehensive and cost-free platform for promoting greater equipment efficiency and reducing electricity use in CFS kitchens. ENERGY STAR covers the widest efficiency product line in any product category: the food building cabinets, solid door refrigerators and freezers, fans, steam cookers, ice machines, commercial ovens, griddles and dishwashers.

These energy-efficient products offer energy savings of 10 to 65 percent over standard models, depending upon the product category. Three of the product categories, commercial dishwashers, ice machines, and steam cookers, also offer water savings of up to 80 percent over standard models. Three CFS utility programs have earned ENERGY STAR awards for promoting these energy-saving products and are showcasing promising energy teams. The winners are:

- California's four investor-owned utilities (IOUs)—Pacific Gas & Electric Company (PG&E), Southern California Edison (SCE), Southern California Gas Company (SCG), and San Diego Gas & Electric Company (SDG&E)—offer a coordinated statewide incentive program with strong energy results, achieving annual electric savings of around 20.8 million kilowatt-hours (kWh) and annual natural gas savings of around 52,000 therms.
- The Energy Trust of Oregon's (ETO) CFS program is achieving annual savings of nearly 1.2 million kWh and over 16,000 therms in partnership with dealers that sell CFS equipment in the state.
- Wisconsin's Focus on Energy offers CFS customers a bonus incentive to encourage the purchase of multiple ENERGY STAR qualified products, and is achieving annual electric savings of nearly 250,000 kWh and annual natural gas savings of nearly 22,000 therms.

Outfitting an entire commercial kitchen with assets of ENERGY STAR quality equipment could save around 200 million kilowatt-hours (kWh) in a year.



Visit: www.energystar.gov/index.cfm?c=pt_univ.pt_univ_cfs

Upcoming Commercial Product Revisions/Additions



- CFS Revisions in Progress:
 - Commercial Ovens
 - Commercial Refrigerators & Freezers
- CFS New Products in Progress:
 - Lab Grade Refrigerators and Freezers
 - Pre-rinse Spray Valves
- Appliance Revisions in progress:
 - Commercial Clothes Washers
- IT Revisions in progress:
 - Audio Video
 - Computers
 - Computer Servers
 - Imaging Equipment
- IT New Products in Progress:
 - Data Center Storage
 - Small Network Equipment
 - Large Network Equipment
- Heating and Cooling New Products in Progress:
 - Commercial Water Heaters

Visit: www.energystar.gov/specifications



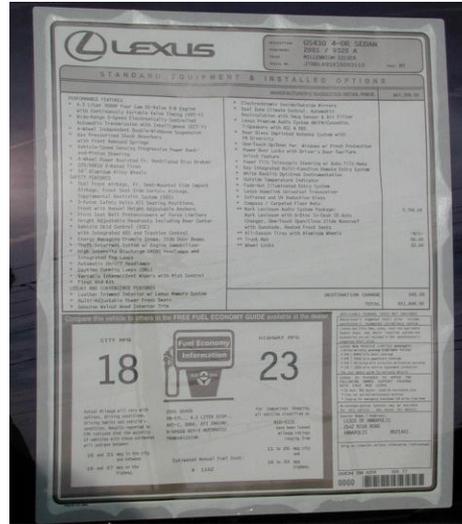
ENERGY STAR for Buildings

Opportunities for Energy Efficiency Program Sponsors



- Educate customers about benchmarking and facilitate access to utility bill data
 - Web education and link to Portfolio Manager/Target Finder
 - Portfolio Manager Web Services (formerly known as Automated Benchmarking)
- Use targeted market sector messaging within traditional prescriptive and custom offerings
- Integrate whole building and strategic energy management approaches in your efficiency portfolio

Benchmarking

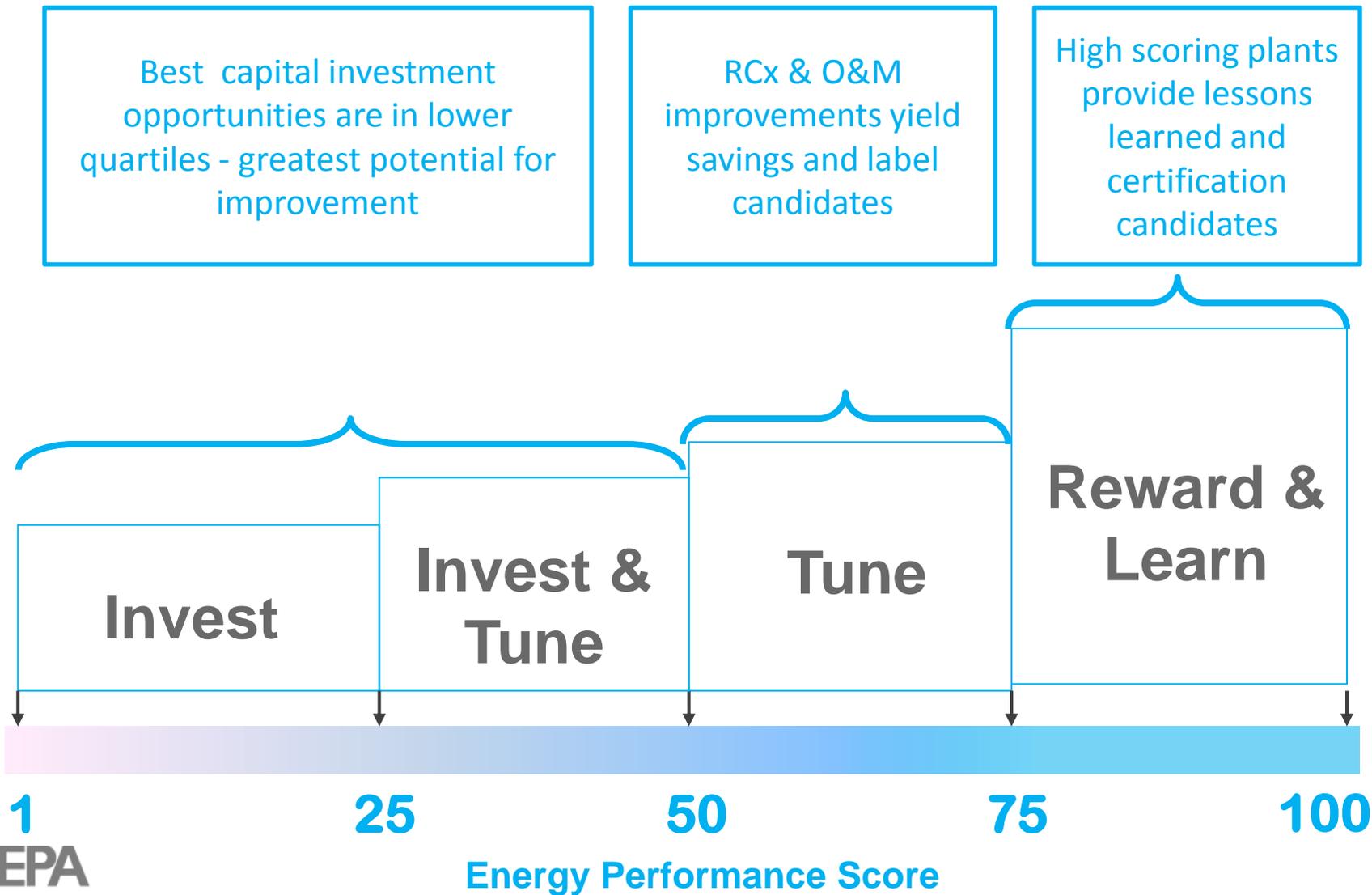


A benchmark is a point of reference from which to make comparisons

What is Portfolio Manager?

- Free, online benchmarking tool for existing buildings
- Whole-building energy performance metrics based on actual consumption data
- Measures and tracks energy intensity, energy cost, emissions, and more
- Normalizes for weather, operating hours, occupant density, plug load
- Easy to understand 1-to-100 score
- Starting point for the ENERGY STAR Certification

Comparative Metric



Energy Performance Rating Scale for Buildings



Is 60 MPG high or low for this automobile?

Compare this vehicle to others in the FREE FUEL ECONOMY GUIDE available at the dealer.

| CITY MPG | Fuel Economy Information | HIGHWAY MPG |
|----------|--------------------------|-------------|
| 60 | | 51 |

see www.fueleconomy.gov

Fuel Efficiency:
MPG

Is 90 kBtu/SF/YR high or low for this building?

STATEMENT OF ENERGY PERFORMANCE
Margrave High School
Building ID: 102120
For 12-month Period Ending: January 31, 2014¹
Date SEP Generated: March 10, 2014

| Facility Space Use Summary | Area ⁽¹⁾ | Number of Students | Number of PCs | Cooling Percent |
|----------------------------|---------------------|--------------------|---------------|-----------------|
| Space Type | 154 | NA | NA | NA |
| Computer Data Center | 351221 | 1,021 | 420 | 100 |
| K-12 Schools | | | | |

| Site Energy Use Summary | Professional Verification |
|-------------------------|---------------------------|
| Electricity (kBtu) | 5,680,861 |
| Propane (kBtu) | 325,812 |
| Natural Gas (kBtu) | 0 |
| Total Energy (kBtu) | 6,006,673 |

Results
Energy Performance Rating⁽¹⁻¹⁰⁰⁾: 94

Energy Intensity⁽²⁾
Site (kBtu⁽³⁾/yr): 17
Square (kBtu⁽³⁾/yr): 40.4

Exhaustion
CO₂ (1000 lbs/yr): 6,791
SO₂ (1000 lbs/yr): 260
NO_x (1000 lbs/yr): 21

Energy Cost
Cost (\$/yr): \$214,460
Intensity (\$/SF-yr): \$0.72

Indoor Environment Criteria⁽⁴⁾
Index or sub-index available? Yes
Adequate ventilation provided? Yes
Thermal conditions met? Yes
Adequate illumination provided? Yes

Notes:
⁽¹⁾ Includes all energy used for heating, cooling, ventilation, lighting, and other building systems.
⁽²⁾ Includes all energy used for heating, cooling, ventilation, lighting, and other building systems.
⁽³⁾ Includes all energy used for heating, cooling, ventilation, lighting, and other building systems.
⁽⁴⁾ Includes all energy used for heating, cooling, ventilation, lighting, and other building systems.

Energy Performance
Scale: **1 to 100**

ENERGY STAR Score: Eligible Building Types



**Bank/Financial
Institutions**



Courthouses



Data Centers



Dormitories



Hospitals



Hotels



**Houses of
Worship**



K-12 Schools



Medical Offices



Office Buildings



Retail Stores



**Senior Care
Communities**



Supermarkets



Warehouses



**Wastewater
Treatment Plants**



Benchmarking through ENERGY STAR® Portfolio Manager

The ENERGY STAR Portfolio Manager is the Environmental Protection Agency's (EPA) interactive energy management tool that allows you to track and assess energy and water consumption of your buildings. It generates weather-normalized energy intensity (kBtu/sq. ft.) and greenhouse gas emissions metrics for all buildings, as well as a percentile energy performance score for many eligible building types. Custom reports and graphs also allow users to see time trending information and compare facilities within their portfolio.

PG&E's Automated Benchmarking Service (ABS) (PDF, 138 KB) provides ENERGY STAR Portfolio Manager with historical energy usage data and updates it monthly so you don't have to enter meter data manually for each month.

Why benchmark?

- Assess energy performance baselines for buildings and set goals for improvement.
- Track and report on energy performance, costs, and environmental impact over time, for individual buildings and entire portfolios.
- Comply with California Assembly Bill 1103, which requires disclosure of benchmarking data at the point of whole building real estate transactions.
- Comply with the new San Francisco Ordinance that requires annual benchmarking of buildings >= 10,000 square feet beginning in 2011.
- Apply for the prestigious ENERGY STAR® label with scores above 75.
- Earn points toward LEED® certification.

How do I get started?

- Learn about ENERGY STAR Portfolio Manager and collect basic building data using the [Data Collection Worksheet](#).
- Collect the Service ID numbers for each meter you wish to sign up for Automated Benchmarking. (If you are not an authorized representative of the Customer of Record for a meter or meters that are



The Green Button
Download your detailed energy usage with one click.
[Learn more](#)



Know What's Below
Call 811 before you dig
[Learn more](#)



Money-Back Solutions for Local Governments and Sustainable Communities
[Learn more](#)

What is Portfolio Manager Web Services?



- Portfolio Manager Web Services is a framework for exchanging data between EPA's Portfolio Manager and a third party system such as a utility customer information system (CIS)
- Portfolio Manager Web Services includes Web-based services using Extensible Markup Language (XML) to...
 - authorize data release
 - transfer energy and/or building data
 - report energy benchmarking results
- Utilities can assist their customers with benchmarking by using Portfolio Manager Web Services to process data authorizations and automate the transfer customer energy data from the utility CIS to EPA's Portfolio Manager

Benefits of Portfolio Manager Web Services



- Helps to facilitate the integration of ENERGY STAR benchmarking into customer reporting & verification requirements
- Allows regular updates to benchmarks without manual data entry
- Facilitates easy accounting and reporting of greenhouse gas emissions at both the building and portfolio level
- Allows program sponsors access to building benchmarking data for targeted marketing

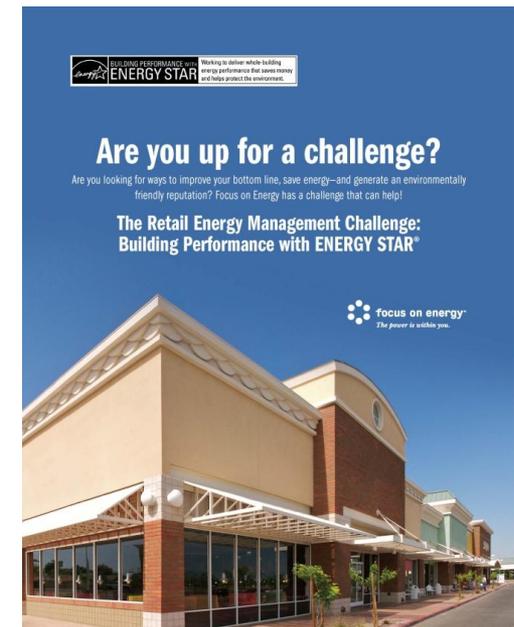


Building Performance with ENERGY STAR

Building Performance with ENERGY STAR



- **Single program model** allows EEPS to leverage the proven approach of the ENERGY STAR program for commercial buildings
- Creates an **integrated** approach to program delivery
 - Power of the ENERGY STAR brand
 - Action planning builds a foundation for future activity
 - Leveraging existing incentive programs as appropriate
 - Claim savings for comprehensive, ongoing approaches to energy efficiency



Required Program Elements



Use of the Building Performance with ENERGY STAR name, logo, and tools will be licensed to EEPS for programs that meet the following criteria:

- **Target Marketing/Recruiting:** Focus on one or more specific commercial building markets (e.g., office, retail, K-12 schools)
- **Benchmarking:** Use EPA's Portfolio Manager tool to prioritize buildings for assessment and upgrade
- **Strategic Energy Management/Action Plan Development:** Help customers to develop strategic action plans that engage high-level decision makers
- **Whole-Building Performance Assessment:** Identify opportunities for improvements across all building systems
- **Whole-Building Upgrades:** Structure incentives to encourage customers to undertake whole-building improvements
- **Performance Monitoring and Verification:** Validate program impacts, support re-benchmarking, and assess customer satisfaction



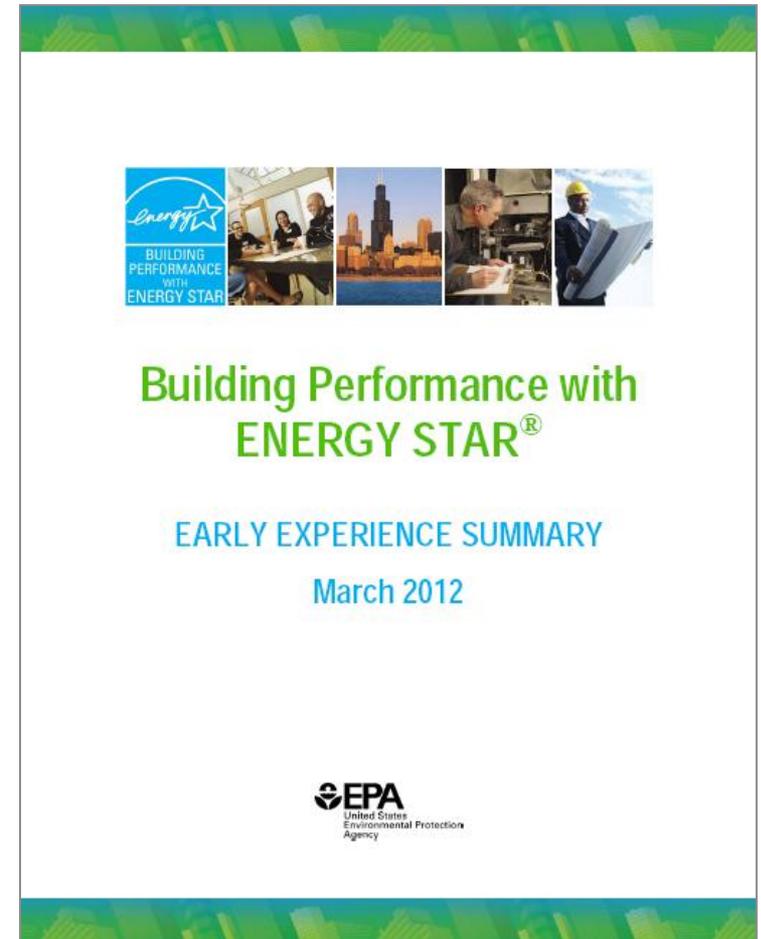
Market Barriers Addressed

| Barrier | Strategy to Overcome |
|---|--|
| Lack of understanding of building performance | Benchmarking helps facility managers understand building energy performance and gives them an easy way to communicate performance to others in their organization. |
| Lack of management commitment and strategic energy planning | Creating action plans with customers as part of their energy management strategy is an effective way to engage senior management, and secure capital for improvements. Benchmarking results can be used to direct resources toward facilities with large energy savings potential. |
| Lack of up-front capital | Focusing on long-term action planning helps customers see past the initial hurdle of up-front capital requirements. Savings from low and no cost improvements can be viewed as a revenue stream to fund future capital improvements. |
| Trade ally business model driven primarily by equipment sales | Building demand in the marketplace for whole building services helps develop a local network of service providers that understand and can deliver whole-building assessments and upgrades. |

Early Experience Summary



- Spotlight on Successful strategies
 - Moving from **buildings** to **portfolios**
 - Using benchmarking as a **mechanism for discovery**
 - Serving as a **trusted advisor**
 - Helping **all customers** realize that they can do more
 - Reaching higher to **engage with senior decision-makers**
 - **Coordinating efforts** between electric and gas utilities
 - **Engaging trade allies** to provide whole-building expertise



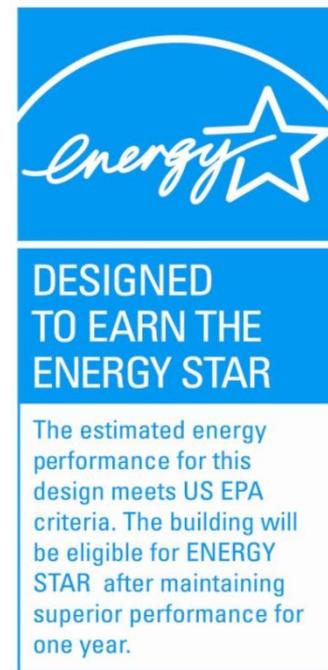


Designed to Earn the ENERGY STAR



Designing for High Energy Performance with Target Finder

- Target Finder helps building designers set aggressive energy efficiency targets and rates a design's estimated energy use.
- Use Target Finder to achieve “Designed to Earn the ENERGY STAR”
- How can utilities use it?
 - Incorporate into new construction programs
 - Provide design assistance incentives to architects
 - Provide incentives for buildings that are Designed to Earn the ENERGY STAR



ENERGY STAR for Buildings – Tools & Resources



- **Marketing and Communications Support**
 - National Campaigns (Challenge)
 - Partner testimonials
 - Partner matchmaking
 - Sample filing language
- **Tools & Resources**
 - Portfolio Manager: www.energystar.gov/benchmark
 - Automated Benchmarking
 - Building Performance with ENERGY STAR
 - Target Finder
 - Benchmarking Starter Kit
 - Energy Management Guidelines
 - Creating an Energy Management Team
 - Building Upgrade Manual
 - Calculator Tools
- **Technical Assistance**
 - Program best practice information
 - Automated benchmarking support
- **Virtual and Online Training**
 - ENERGY STAR Challenge: Getting Started
 - Portfolio Manager Training

The ENERGY STAR Challenge Design a Better World



EPA supports the American Institute of Architects (AIA) national call-to-action to reduce fossil fuel energy associated with CO2 emissions when designing, constructing and operating buildings.

View the [2009 Designed to Earn ENERGY STAR Challenge](#) projects from architecture firms that are designing a better world!

- Follow EPA's Integrated Design Guidance
- Set Energy Targets and Rate Design Energy: Target Finder
- Achieve Designed to Earn the ENERGY STAR



Sponsors Guide to ENERGY STAR for Commercial Programs

U.S. ENVIRONMENTAL PROTECTION AGENCY

Home > Partner Resources > Utility & EEPS > C&I Program Sponsors > Guide to ENERGY STAR for Commercial Programs

Sponsors Guide to ENERGY STAR for Commercial Programs

Leverage ENERGY STAR tools and resources for [buildings and plants](#) to promote whole-building energy performance improvements within your program portfolio.

Building on the practices of leading energy efficiency program sponsors and the EPA ENERGY STAR partnership, this guide describes the core program elements of a successful building performance program.

See how ENERGY STAR can help you!



- Target Marketing / Recruiting
- Benchmarking
- Strategic Energy Management / Customer Action Plans
- Whole-building Performance Assessment
- Whole-building Upgrades
- Performance Monitoring and Verification



ENERGY STAR Trainings



- ENERGY STAR offers free training Webinars led by industry experts:
 - Rating Energy Performance with Portfolio Manager
 - Best Practices to Improve Energy Performance
 - Introduction to the Cash Flow Opportunity Calculator
 - Purchasing and Procuring Efficient Equipment



Calendar of all ENERGY STAR trainings

Visit:

<https://esbuildings.webex.com/mw03071/mywebex/default.do?siteurl=esbuildings>



ENERGY STAR

Industrial Opportunities

Industrial Energy Use

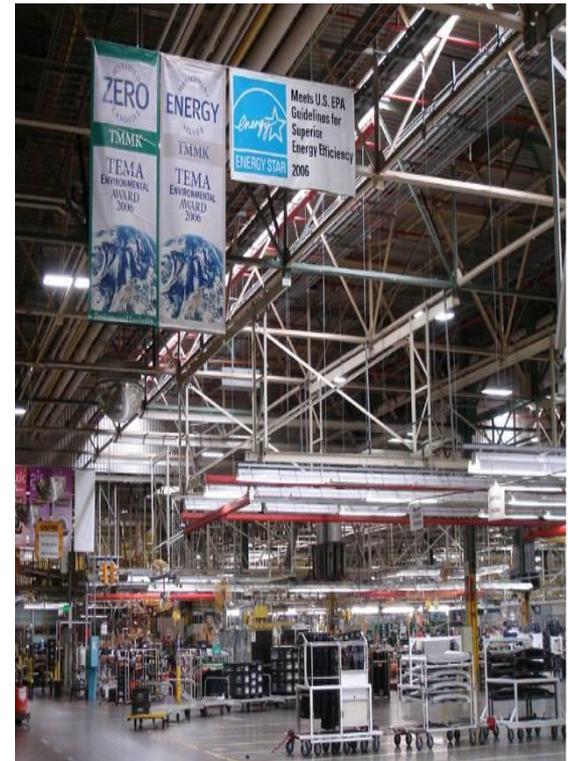


- Currently, a few energy intensive manufacturing industries account for a large share of total energy use (bulk chemicals, refining, paper, steel, and food = 60%; other energy intensive industries include glass, cement, and aluminum).
- Increases in energy consumption in the energy-intensive industries can be as high as 0.8 percent per year from 2010 to 2035.
(US EIA 2012 Annual Energy Outlook)

Industrial Opportunities for Program Sponsors



- **Education** on the full suite of ENERGY STAR opportunities:
 - Promote customer participation in ENERGY STAR Challenge for Industry
- Help customers to focus on corporate **sustainable energy management**
- Leverage already high industry participation



Education - Challenge for Industry (C4I)



Recognition program for sites that achieve a 10% reduction in energy intensity.

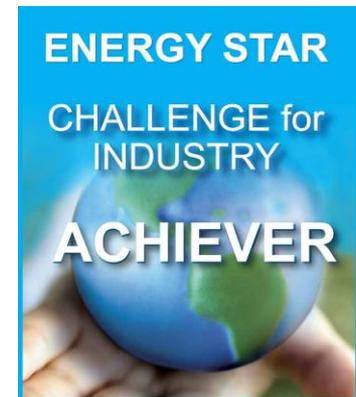
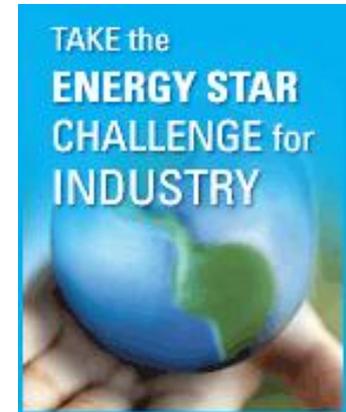
Manufacturing sites take the Challenge by:

- Selecting an **energy intensity metric**.
- Establishing a **baseline**.
- **Setting a goal** to improve by 10% within 5 years.
- **Tracking** energy performance.
- **Verifying** savings if goal is achieved.

Utilities, trade associations, and others have partnered with ENERGY STAR to promote the Challenge for Industry.

Opportunity to leverage the ENERGY STAR brand to motivate industrial sites to take action.

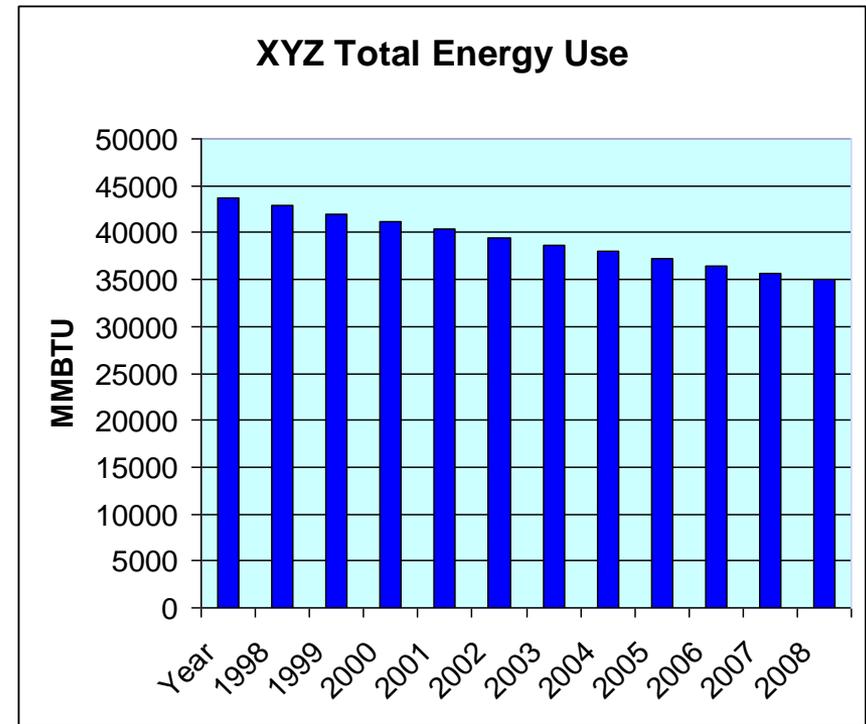
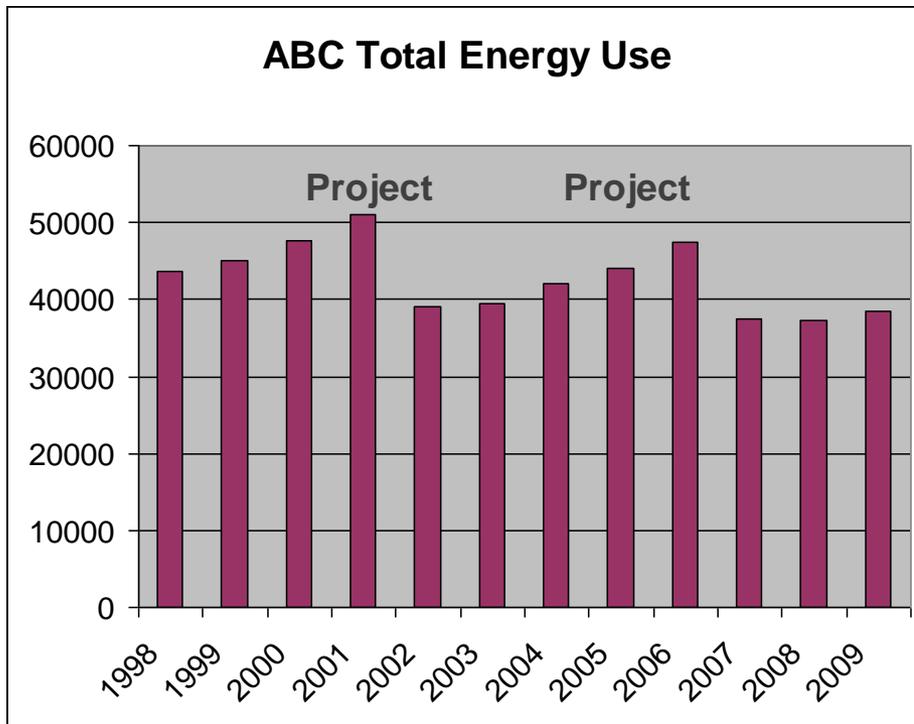
Learn more at: www.energystar.gov/industrychallenge



Sustaining Energy Savings



- Energy programs focus on continuous improvement
- Companies with energy programs save more energy
- Sustaining energy savings requires a programmatic approach



Energy Management Guidance



ENERGY STAR offers proven guidance for developing strong energy management programs. Key tools include:

Guidelines for Energy Management

- Provides a framework for how to implement an energy program; based on a “plan-do-act-check” approach.

Energy Program Assessment Matrix

- Evaluates energy management practices and program to identify gaps.

Facility Energy Assessment Matrix

- Evaluates facilities energy management practices to identify gaps.

Teaming Up to Save Energy

- Provides guidance on how to build an energy team and program across an organization.

ENERGY STAR Guidelines for Energy Management



ENERGY STAR for Industry – Tools & Resources



- Industrial Energy Management Information Center
(https://www.energystar.gov/index.cfm?c=industry.bus_industry_info_center)
- Industries in Focus (includes Industrial Energy Guides) (https://www.energystar.gov/index.cfm?c=in_focus.bus_industries_focus)
- Industrial Energy Performance Indicators
(<http://www.energystar.gov/index.cfm?c=industry.industrybenchmarkingtools>)
- Bring Your Green to Work for Industry
(http://www.energystar.gov/index.cfm?c=bygtw.view_showPlant)
- Partners in Practice
(http://www.energystar.gov/index.cfm?fuseaction=partners_in_practice.showHome)

Visit:

http://www.energystar.gov/index.cfm?c=industry.bus_industry

Key Takeaways



- Take advantage of ENERGY STAR resources and strategic intelligence to reduce time/expense and increase effectiveness of energy efficiency programs
- Increase customer satisfaction by aligning with a powerful “brand”
- Reinforce positive business image
- Develop strategic alliances through extensive partner network
- Contribute to a greater good!

Useful Links

- www.energystar.gov
- www.energystar.gov/nationalcampaigns
- www.energystar.gov/training
- www.energystar.gov/DIME
- www.energystar.gov/homes
- www.energystar.gov/benchmark
- www.energystar.gov/guidelines
- www.energystar.gov/newbuildingdesign
- www.energystar.gov/challenge
- www.energystar.gov/industry

Questions?



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