



The Tide is Turning

Adopt an Energy Efficiency Strategy

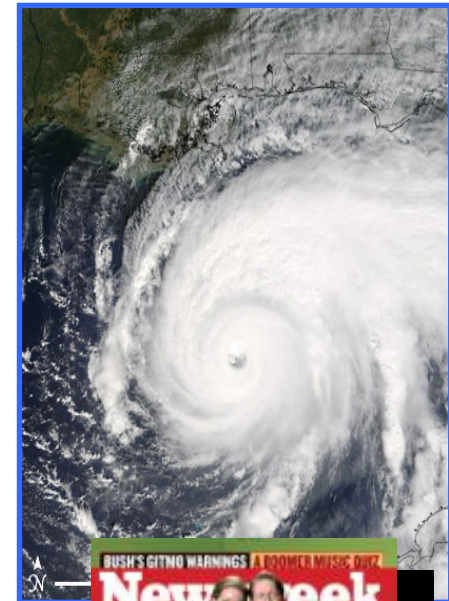
Jean Lupinacci
EPA's ENERGY STAR Commercial and Industrial
May 22, 2008

Trend: Growing Energy & Environmental Concerns



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- Gallup polls show Americans' concerns about environmental issues have increased **more than 10 percentage points** between 2004 and 2006
- **88%** of US adults responded that “energy efficient” was very important in their electronics, appliance, lighting, and heating/cooling equipment purchases*
- Annual Pew Surveys report:
 - **58%** of Americans rank “dealing with the nation’s energy problem” as a top priority in 2006, up from 40% in 2003
- ABC News/Washington Post Poll:
 - **79%** of Americans think global warming poses a serious threat to future generations



* The Natural Marketing Institute, February 2004, *Understanding the 2004 LOHAS Consumer Report™: A Focus on Durable Goods*

Cities Take the Lead



- 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 . . .”
- US Conference of Mayors- ENERGY STAR Resolution:
 - Unanimous resolution passed summer '07
 - Mayors support ENERGY STAR Challenge
 - Deliver energy efficiency in cities
- Louisville example pilot city
 - Improve own buildings
 - Reach out to business community
 - Mayor Abramson hosts all metro real estate associations at energy efficiency meeting
- Washington DC:
 - Policy/legislation
 - Business community

Associations Take the Lead



BOMA's 7 Point Challenge:

1. Decrease energy consumption by 30 percent across portfolios by 2012;
2. Benchmark energy performance and water usage through EPA's ENERGY STAR® benchmarking tool;
3. Provide education to ensure that equipment is properly maintained and utilized;
4. Perform an energy audit and implement low-risk, low-cost strategies
5. Improve operations and maintenance and ensure equipment operates as designed;
6. Impact community and planet by reduce industry's role in global warming; and
7. Position yourself and the industry as leaders and solution providers

BOMA Seattle/King County Kilowatt Crackdown



- Partnership of BOMA, utilities, and nonprofit organizations.
- Participants benchmark buildings in Portfolio Manager in Jan 2008 using 2007 utility data.
- Winners in multiple categories for top performance, best improvement, etc.
- Free PE certification for the ENERGY STAR label.
- Prizes include cash, private suite parties at Seattle Mariners games, tickets to the BOMA golf tournament, and more.

The poster features the BOMA Seattle & King County logo at the top left, a trophy icon at the top right, and the text 'Win the Kilowatt Cup Trophy and other PRIZES!' in a red oval. The main title 'KILOWATT CRACKDOWN' is in large white letters on a blue background. Below the title, it asks 'Which buildings lead the market in energy efficiency? Who can take energy management to the next level?' and 'TAKE THE CHALLENGE AND FIND OUT' with three bullet points: '- Is your building beating the Seattle average?', '- Can you qualify for the marketing benefits of the ENERGY STAR® label?', and '- Can a historic property can be more efficient than a LEED certified development?'. A section titled 'About the Kilowatt Crackdown' explains the challenge. At the bottom, 'WHAT YOU'LL GET' lists six benefits: 1. FREE advertising and recognition, 2. An unbiased ranking, 3. A private report, 4. A FREE online review, 5. FREE energy engineering certification, 6. A \$25 Seattle's Best Gift Card, 7. A valuable measuring point, and 8. Satisfaction from being a leader.

States Take the Lead



California – Breaking New Ground with ENERGY STAR

- All state buildings to be benchmarked using EPA energy performance rating and Portfolio Manager by end of 2007.
- California AB 1103 became law in 2007.
 - By January 1, 2009, upon the request of any commercial building owner, requires all utilities to make available data for uploading into Portfolio Manager.
 - By January 1, 2010, requires the **disclosure** of an ENERGY STAR rating and energy use data as part of commercial real estate transactions involving the **sale, lease, or financing of a whole building.**

Commercial Property Companies take the Lead



➤ **Property owners and managers**

- Hines
- RML Property Management (Louisville-based)
- Fenley Real Estate Group (Louisville-based)
- CB Richard Ellis
- Jones Lang LaSalle
- USAA Realty
- Transwestern
- Cushman & Wakefield

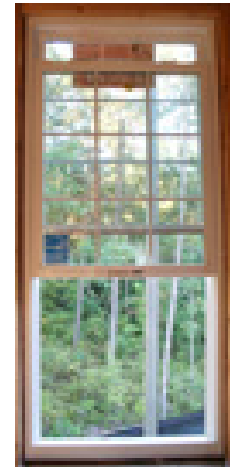
➤ **Major corporations**

- Humana (Louisville-based)
- Papa John's (Louisville-based)
- GE
- Marriott
- JC Penney
- Food Lion
- McDonald's

ENERGY STAR



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Also ENERGY STAR



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AEGON Center
Louisville, KY



Shriner's Hospital for Children
Houston, TX



500 Boylston St.
Boston, MA



Westin San Francisco Airport
Millbrae, CA



Twin Peaks Charter Academy
Longmont, CO



Blue Earth County Courthouse
Mankato, MN

Take the ENERGY STAR Challenge



National Campaign to reduce energy waste in buildings:

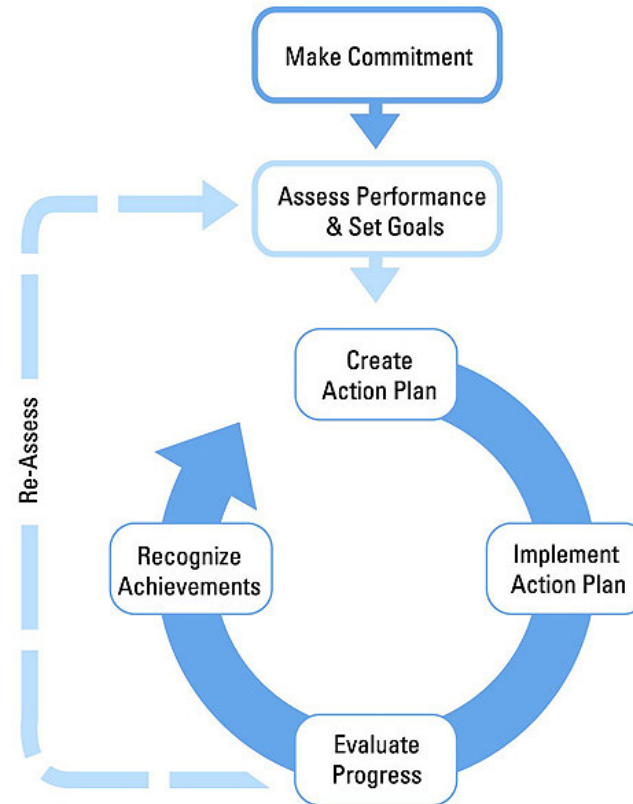
- Co-brandable posters and print advertisements
- Brochures
- Fact sheets
- Key messages
- Web banners
- Templates for press releases



[Learn more at energystar.gov/challenge](https://www.energystar.gov/challenge)

Adopt Organization-Wide Management Approach

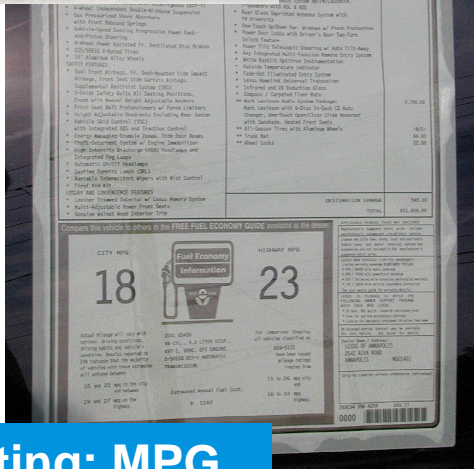
- Guidance based on the successful practices of ENERGY STAR partners
- EPA identified key components from successful energy management programs.
- EPA provides tools at each step along the way



How Does Your Building Perform?



Vehicles



Is 10 MPG high or low for an automobile?

Fuel Efficiency Rating: MPG

Buildings

EPA Energy Performance Rating: kBtu/sf/yr

STATEMENT OF ENERGY PERFORMANCE				
Margrave High School				
Building ID: 152125				
For 12-month Period Ending: January 31, 2004				
Date SEP Certificate Issued: March 18, 2005				
Margrave High School		Owner		
12500 Hwy 65		Cameron Group		
Longwood VA 22091		Contact: John Doe		
Gross Building Area: 341,268 sq ft		1001 North-Farm Street Drive		
Year Built: 1980		Suite 900		
		Adlington VA 22006		
		(410) 242-4000		
Facility Space Use Summary				
Space Type	Area (sq ft)	Number of Students	Number of PCs	Cooling Percent
Computer Lab/Center	138	1,521	420	100
K-12 Schools				
Site Energy Use Summary				
Electricity (kBtu)	5,049,801	Professional Verification		
Program (kBtu)	320,419	John Doe		
Natural Gas (kBtu)	0	1001 North-Farm Street Drive		
Total Energy (kBtu)	5,079,220	Adlington VA 22006		
		Suite 900		
		(410) 242-4000		
		Licensed Number: 123456789		
		State: VA		
Results				
Energy Performance Rating* (1-100)	94			
Energy Intensity*	17			
Site (kBtu/sf/yr)	40.4			
Source (kBtu/sf/yr)				
Emissions				
CO ₂ (1000 lbs/yr)	6,791			
SO ₂ (1000 lbs/yr)	305			
NO _x (1000 lbs/yr)	21			
Energy Cost				
Cost (\$/yr)	\$294,680			
Intensity (\$/ft ² -yr)	\$0.87			
Indoor Environment Criteria*				
Indoor air pollutants controlled?	Yes			
Adequate ventilation provided?	Yes			
Thermal conditions met?	Yes			
Adequate illumination provided?	Yes			
Notes:				
1. Application for ENERGY STAR must be submitted to EPA within 4 months of the Period Ending Date. Award of ENERGY STAR is not final until the award is posted on the EPA website.				
2. EPA will not award ENERGY STAR to buildings that do not meet the minimum energy efficiency requirements for ENERGY STAR.				
3. Values of Energy Intensity and Energy Cost are based on a 100% utility rate.				
4. Based on existing ASHRAE Standard 90.1-1999 for energy use, ASHRAE Standard 90.1-2001 for thermal comfort, and IEQAA Level 1.				
Tracking Number: 152125				



Is 65.7 kBtu/sf/yr high or low for a building?

Building Rating - Objective



- Create a simple metric that is easy to understand
- Monitor actual billed energy data
- Create a whole building indicator
 - Capture the interactions of building systems not individual equipment efficiency
 - Track energy use accounting for weather and operational changes over time
- Give a peer group comparison
 - Compare a building's energy performance to its national peer group
- Offer recognition for top performers

ENERGY STAR Buildings – Beyond Benchmarking



- Technical Guidance
 - Energy Management Guidelines
 - Creating an Energy Management Team
 - Building Upgrade Manual
 - Calculator Tools
- On-Line Training
 - ENERGY STAR Challenge: Getting Started
 - Designing Top Energy Performing Buildings
 - Portfolio Manager Training
 - Best Practices
- Campaigns to Involve Employees, Customers, and Others
 - Change a Light
 - ENERGY STAR Challenge

Tap into Experts



- ENERGY STAR helps you find expertise you need:
 - Service and Product Providers
 - Energy efficiency programs and incentives:
 - Utilities, states, non-profit organizations
 - Others in your sector
 - Others in your community

Join the Wave of Movement

