



ENERGY STAR®

Energy Efficiency is Good Business

Bill White

U.S. EPA – Region 1

Energy Efficiency is the Bottom Line

Forum hosted by Congressman John Tierney

August 30 2005

Osram-Sylvania

Danvers, MA



Some Context



Commercial Real Estate

Generates 18% of US CO₂ emissions
Single biggest operating expense for office properties – 30% of budget
30% of energy used is “waste” energy

Retailers

Spend **\$20 billion/year** on energy



Manufacturers

Generate 33% of US CO₂ emissions
Spent **\$75/yr. billion** on energy



The Status Quo

400% variation

in energy use intensity of buildings

(Source: Commercial Buildings Energy Consumption Survey)

Variation can not be explained
by age, technology, hours, size, climate



Little Improvement

Energy consumption has
declined only slightly

Even though building components are

30% more efficient

than they were in 1980



New Technologies Alone do not Guarantee Savings

Energy management has been:

Focused on technology rather than performance

Reactive

Considered capital intensive

Poorly coordinated across an organization

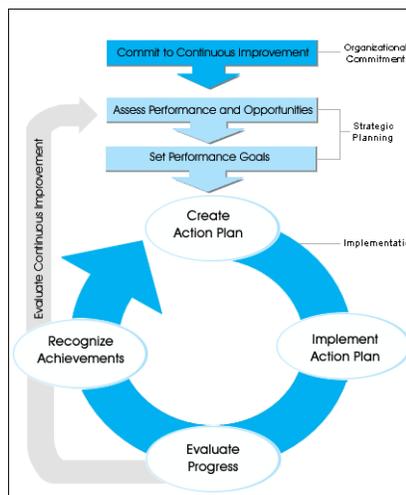
Viewed as least controllable cost by most CEO's

Directed at paying bills & running the powerhouse



The ENERGY STAR Approach

Commit to continuous improvement



Make benchmarking a regular part of organizational practices



National Energy Performance Rating

Is 10 MPG high or low for an automobile?



Answer: Common Knowledge

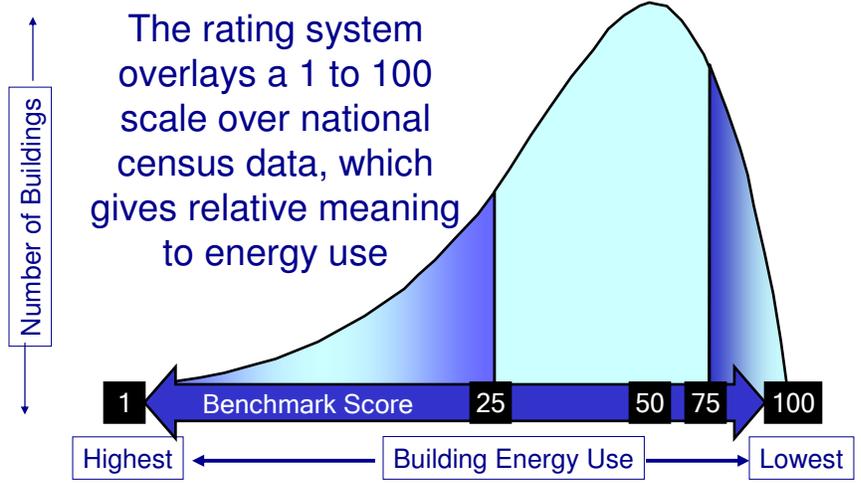
Is 80 kBtu/SF/YR high or low for a building?



Answer: Even some facility experts don't know



National Energy Performance Rating





How Does the Rating System Work?

Actual Energy Consumption Data

Easy-to-use, secure, web-based, simple data requirements

Normalizes for Building Variables

Weather, size, number of rooms, average occupancy rate, food and laundry facilities

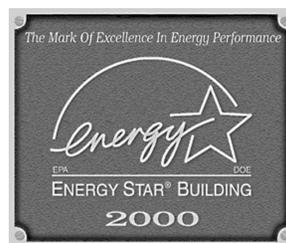
Easy-to-understand 1-100 performance score

Use it to: Benchmark, Compare, Inform, Track and Measure, and Reward Success



ENERGY STAR Label for Office Buildings

- **Buildings that score 75 or better are eligible for the ENERGY STAR label**
- **Buildings must also meet requirements for indoor air quality, lighting, ventilation and thermal comfort**





Eligible Space Types

- Offices
- K-12 Schools
- Hospitals
- Grocery Stores
- Hotels
- Banking and Financial Centers
- Medical Office Buildings
- Dormitories
- Warehouses
- Courthouses



Partner Case Study



1900 K Street, Washington, DC

1996: 340,000 sf

1999: Benchmark score = 31

2000: Hines/CalPERS institute management and operational changes

2001: Benchmark score = 52

2002: Benchmark score = 75
ENERGY STAR Label

Over 40% Reduction in Energy Use:
No Capital Investment!



ENERGY STAR Resources

Portfolio Manager

Free Online Training

Building Upgrade Manual

Financial Value Calculator

Purchasing Tool Kit

Communications Kit

Service and Product Providers Directory

**ENERGY STAR Qualified Products – Manufacturer &
Retailer Resources**



Energy Efficiency also helps Small Business

Energy Star offers free tools and resources to improve energy efficiency at a wide variety of small businesses, including:

- **Restaurants**
- **Retail**
- **Beauty/barber shops**
- **Auto repair**
- **Dry cleaning**
- **Bakeries**
- **Internet**
- **Health Care**



Simple, Easy Steps Can Save Energy and Money Quickly

- Turn off lights and equipment
- Install occupancy sensors
- Adjust light to meet actual needs
- Tune-up HVAC
- Install programmable Thermostat
- Change to efficient lighting
- Install LED exit signs
- Buy Energy Star labeled products
- Control direct sun through windows
- Use fans
- Weatherstrip doors, windows, etc.



Cambridge Savings Bank

- **Commitment to Energy Management Across the Organization**
- **Energy Star Labels for 7 of 14 offices/branches**
- **Cut Energy Use by 22% - saving over \$60,000 per year – while adding two new bank branches**



ENERGY STAR Small Business Success Stories

AOK Auto Body Philadelphia, PA

35,000 Sq. Feet
Annual Cash Savings: \$5,577
Upgrades: Lighting
Payback period: 1.4 years

Boulder Book Store Boulder, CO

20,000 Sq. Feet
55 Employees
Annual cash savings: \$ 4,800.00
Upgrades: Lighting, windows,
cooling system, water efficiency
Payback period (avg.): 3 years

Subway Sandwiches Norman, OK

8500 Sq. Feet
75 Employees
Annual cash savings: \$20,000.00
Upgrades: lighting, cooling, ceiling
fans, ice makers
Payback period (avg.): 3 years

Thomas Mott Homestead Bed & Breakfast Alburg, VT

4,200 Sq. Feet lodging
Annual Cash Savings: \$10,000
Upgrades: windows, insulation,
heating, lighting
Payback period: 6 years



ENERGY STAR Buildings Partnership Agreement

- Voluntary partnership
- No obligations, no timeline
- Partners embrace energy management principles and apply them to their buildings
 - Many bldgs could use 30% less energy if owners made profitable investments in energy efficiency, also enhancing occupant comfort and environmental performance.



Contact Information

Bill White

White.William@epa.gov

617-918-1333

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Energy Team

ENERGY STAR Contact in New England

1-888-STAR-YES

www.energystar.gov