

Green Begins with ENERGY STAR



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Green Starts with Blue



- A green home is an energy efficient home
- An energy efficient home reduces air pollution generated by power plants
- The blue ENERGY STAR label makes it easy to recognize an energy efficient home

A blue rectangular label template for an ENERGY STAR qualified home. The top left corner features the ENERGY STAR logo. The top right corner contains the text "AN ENERGY STAR® QUALIFIED HOME". Below this, there are four white input fields for "Address:", "Built by:", "Verified by:", and "Date:". Below these fields is a larger white input field for "Optional information:". At the bottom, there is a paragraph of text explaining the verification process and the benefits of an ENERGY STAR qualified home, followed by the website address "www.energystar.gov".

Address:

Built by:

Verified by:

Date:

Optional information:

This home has been independently verified through an EPA-approved sampling protocol to meet ENERGY STAR's strict guidelines for energy efficiency. Each ENERGY STAR qualified home can keep 4,500 lbs of greenhouse gases out of our air each year.

www.energystar.gov

Why is energy efficiency important?



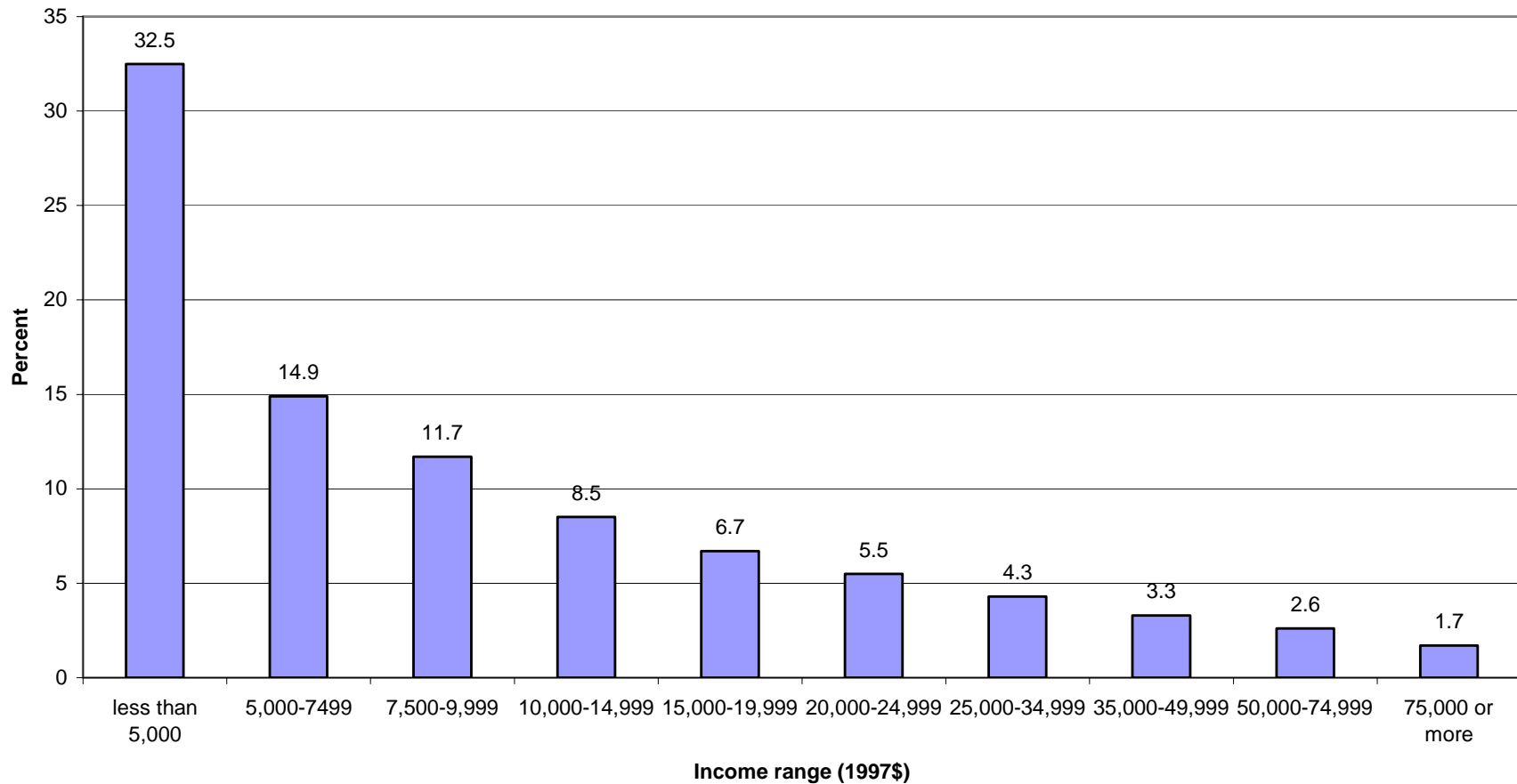
- Rising energy prices
- Low-income households spend more on energy (can exceed 30% of income)
- Grant funding and subsidies are shrinking
 - Energy bills exceed LIHEAP funding by \$21 bil.
- Utility costs in public and assisted housing are more than a quarter of operating costs

Why is energy efficiency important?



Energy Burden Highest on Low-Income Households

Percent of income for energy expenditure 1997



How Energy is Wasted in Buildings



- **Old and poorly maintained HVAC systems**
- **Inefficient and old lighting and appliances**
- **Structural damage, leaks, and decay**
- **Insufficient and poorly installed insulation**
- **Leaky and poorly installed ducts**
- **Inefficient and/or leaky windows & doors**
- **Lack of homeowner awareness = wasteful habits**

How Energy is Wasted in Buildings



Improperly installed insulation

Easily detected and prevented by HERS inspection.

Water penetration



How Can ENERGY STAR Help?



- National brand representing energy, financial & environmental performance



- Over 40 product categories covering appliances, residential lighting, consumer electronics & office equipment



- Certification of top energy performance for homes



Products that earn the ENERGY STAR® prevent greenhouse gas emissions by meeting strict energy efficiency guidelines set by the U.S. Environmental Protection Agency and the U.S. Department of Energy. www.energystar.gov



CHANGE FOR THE
BETTER WITH
ENERGY STAR

How Can ENERGY STAR Help?



- Protects the environment through superior, cost effective energy efficiency
- No tradeoffs in performance or quality
- A government backed symbol providing valuable, unbiased information – source of authority
- Binary (Y/N)
- Power of the individual to make a difference

ENERGY STAR for Affordable Housing



New Housing:

- Specify ENERGY STAR equipment and appliances
- Specify homes meet ENERGY STAR construction guidelines

Existing Housing:

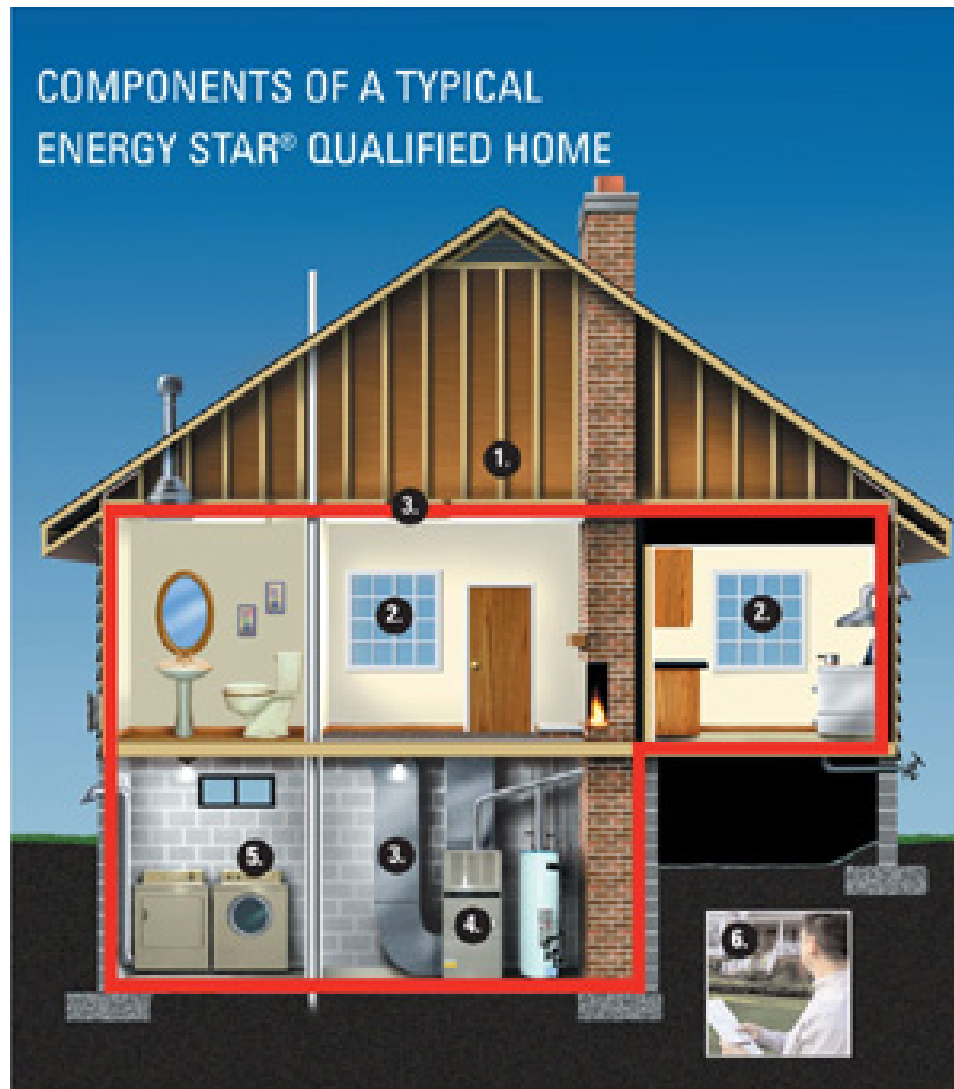
- Specify ENERGY STAR equipment and appliances
- Implement Home Performance w/ENERGY STAR or perform whole house energy improvements

What is an ENERGY STAR Qualified Home?



- Minimizes energy needed to control the interior environment while maximizing comfort
- **15-20%** more energy efficient than a standard *new* home
- Passes third party inspection by a certified home energy rater
- Can remove 4,500 lbs. of greenhouse gases per year
- Can save homeowners \$200-400 per year

What is an ENERGY STAR Qualified Home?



1. Effective insulation
2. High performance windows (Low-E)
3. Tight construction and ducts
4. Efficient heating and cooling equipment
5. Lighting and appliances
6. Third-party verified

ENERGY STAR FOR HOMES PROCESS



- ***Find HERS Rater***
 - *ENERGY STAR for Homes Partner Locator*
(www.energystar.gov/homes)
- ***Select Energy Efficiency Measures***
 - *Prescriptive Path (Builder Option Packages)*
 - *Performance Path (Home Energy Rating/Plan Review)*
- ***Field Verification***
 - *Inspection*
 - *Diagnostics*
 - *Certification*

For Existing Homes



- **Home Performance with ENERGY STAR**
 - **'Whole-House' improvements**
EPA works with state and utility partners
 - **Combines Audit, Evaluation, Improvements**
Emphasis on delivering improvements
 - **Quality Assurance**
Diagnostics and "best practice" installation
Accredited performance contractors
- **Currently available in AZ, CA, CO, GA, ID, IL, MA, NJ, NY, OR, RI, TX, VT, WI, WY**

Future: EPA 'Green' Bundle



Energy Efficiency

- Envelope
- Distribution
- Equipment
- Lighting
- Appliances

ENERGY STAR

Indoor Environment

- Bulk Moisture
- Radon
- Pest Control
- HVAC
- Combust. Safety
- Materials

EPA Indoor Air Plus

Resource Efficiency

- Water
- Materials
- Waste

EPA Water Sense

Why Work with ENERGY STAR?



- **Lower energy use saves money**
 - for housing authorities (less overhead) or
 - for low-income residents (lower bills)
- **Improved home comfort**
- **Improved building durability**
- **Increased property value**
- **Reduced air pollution / improved environment**

How to Support ENERGY STAR Measures



- **HFAs and Other HUD Grantees - Award points and/or incentives for ENERGY STAR measures as part of criteria for public funding**
- **Utilities and Energy Offices - Provide incentives that cover verification costs and/or promote ENERGY STAR measures over standard efficiency equipment and homes**
- **Lenders – Offer incentives that promote ENERGY STAR qualified homes or making improvements to existing homes**
- **Housing Authorities – utilize energy performance contracts which use energy savings to pay for improvements made by energy service companies**

Web Links



ENERGY STAR for New Construction

www.energystar.gov/homes

ENERGY STAR Home Improvement

www.energystar.gov/homeimprovement

ENERGY STAR Bulk Purchasing Tool

www.bulkpurchase.net

RESNET – HERS Raters

www.natresnet.org

Building Performance Institute

www.bpi.org

State, Local, Utility, and Federal Incentives

www.dsireusa.org

Summary



Energy efficiency is not a luxury, it is critical to providing truly affordable housing and more sustainable communities.