



CHANGE THE WORLD, START WITH ENERGY STAR

Take the ENERGY STAR Pledge



Friday, November 13th
Dale Hoffmeyer, EPA

Quiz



Which is responsible for more greenhouse gas emissions?

- a) the average car
- b) the average house

Quiz



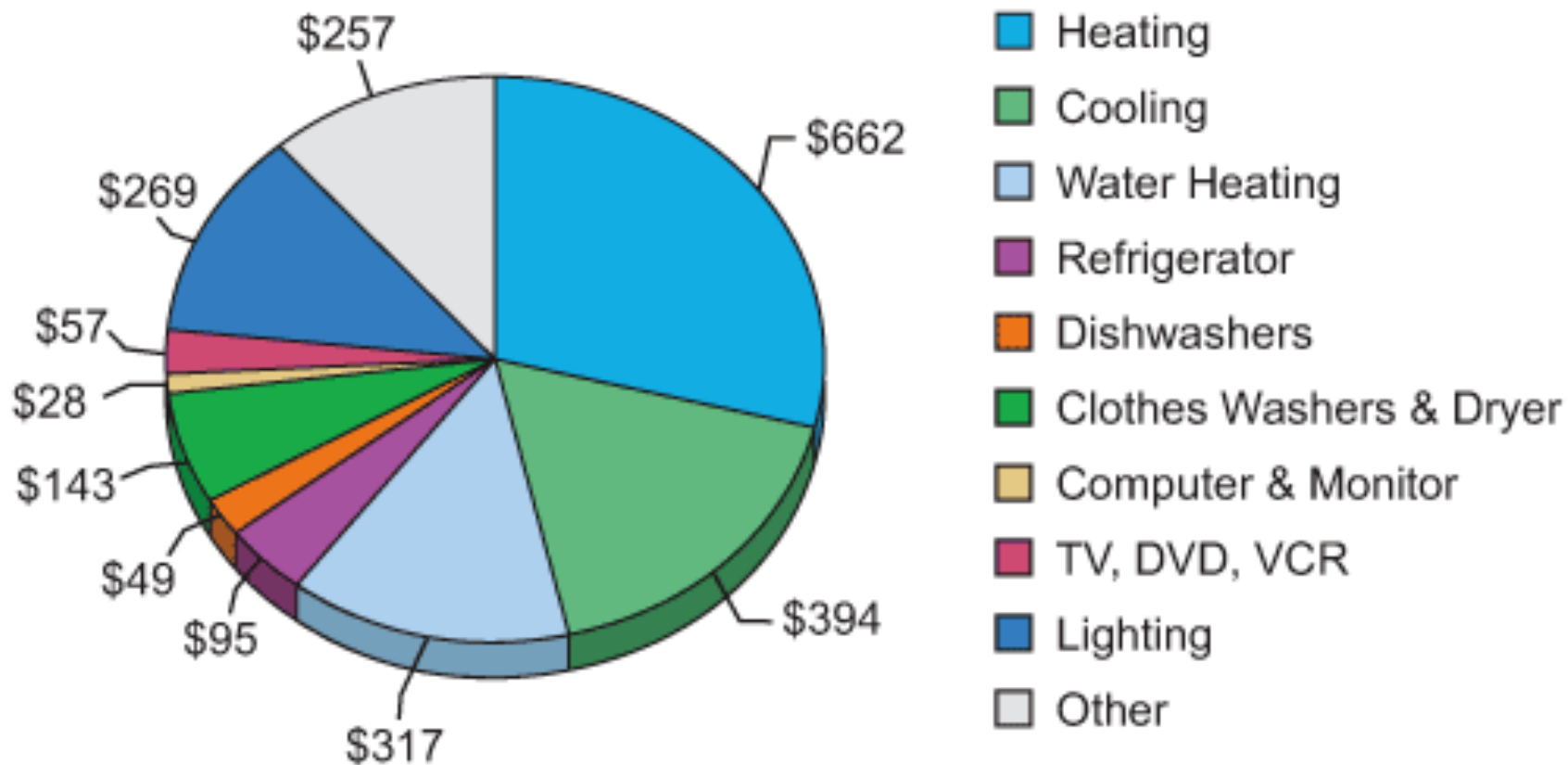
Which is responsible for more greenhouse gas emissions?

- a) the average car
- b) the average house

Answer: The average house is responsible for twice the greenhouse gas emissions as the average car?



Typical Annual Utility Bill



Annual Average Energy Bill for typical Single Family Home is approximately \$2200



National Campaign



Change the World, Start with ENERGY STAR

a national campaign encouraging all Americans to join with millions of others and take small, individual steps that make a big difference in the fight against global warming

**CHANGE THE WORLD,
START WITH ENERGY STAR**
Take the ENERGY STAR Pledge **GO** →

www.energystar.gov/changetheworld



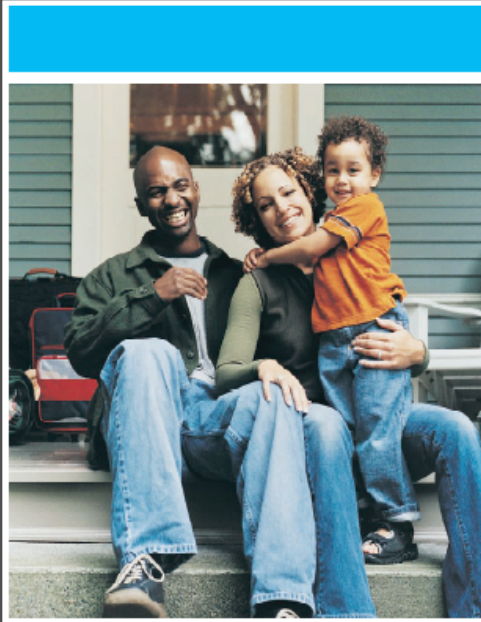
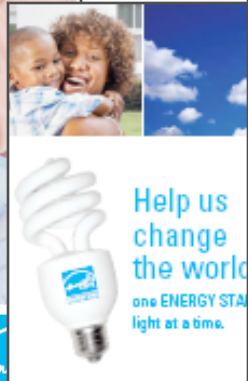
Guides for Homeowners



Residential Resources



A Guide to Energy-Efficient Heating and Cooling



A DO-IT-YOURSELF GUIDE TO SEALING AND INSULATING WITH ENERGY STAR®
SEALING AIR LEAKS AND ADDING ATTIC INSULATION



Educational Resources

YOU CAN BE AN ENERGY STAR!

A Who's Guide To Saving Our Planet For Who's Of All Shapes and Sizes!

JOIN HORTON and THE MAJOR IN THE FIGHT AGAINST GLOBAL WARMING. Horton and the major describe how important it is to be the best you can be right now. Making big things easy changes in our homes, schools, and at work. Learn more at energystar.gov.



www.energystar.gov/publications

Interactive Tools for Homeowners



- Home Energy Advisor
Make a plan
www.energystar.gov/homeadvisor



- ENERGY STAR @ Home
Go room-by-room
www.energystar.gov/home



- Home Energy Yardstick
Track your progress
www.energystar.gov/yardstick



ENERGY STAR - Microsoft Internet Explorer

File Edit View Favorites Tools Help

- Common Home Problems
- Home Energy Yardstick
- Home Energy Audits
- Air Seal & Insulate
- Heat & Cool Efficiently
- Home Performance with ENERGY STAR
- Home Improvement FAQs
- For Contractors
- For Insulation Manufacturers

[Join ENERGY STAR](#)



ENERGY STAR Home Energy Yardstick

WHAT'S YOUR SCORE?

Compare your household's energy use to others across the country and get recommendations for improvement.

What you need to know to get started

- **Your energy use and costs for the last year:** You'll need your last 12 months of utility bills OR a 12-month summary statement from your utility company.
- **Energy sources for your home:** natural gas, electricity, fuel oil, propane and wood.
- **The square footage of your home.**

Your Home

What is your zip code?

How many people live in your home?

What is the square footage of your home, including the basement?

[More information](#)

Your Fuel Types

In addition to electricity, what other fuels do you use for home use? Select all that apply.

Natural Gas

Fuel Oil

Your Energy Use

Would you like to use **annual** or **monthly** billing information to enter your energy use?

Annual

Monthly

Select the Start Date for the year covered:

Certificate



ENERGY STAR Home Energy Yardstick

YOUR SCORE

EPA's Home Energy Yardstick compares a household's energy use to similar homes and gives it a score between 0 and 10 (10 being the most energy efficient).

Yardstick Score: 3.3*

Home and Energy Use for:

Address: 123 Energy Drive, Falls Church VA
 Zip Code: 22048
 People living in your home: 2
 Square Footage: 2200
 Energy Use from 01-Nov-2007 to 31-Oct-2008

Use (Natural Gas)	Bill Amount (Natural Gas)	Use (Electricity)	Bill Amount (Electricity)
845 CCF or Therms	\$0	11,458 kWh	\$0

How To Improve a Low Score

- ✓ Seal air leaks (or drafts).
- ✓ Add more insulation in the attic.
- ✓ If the HVAC equipment is more than 10 years old, consider replacing with models that have earned the ENERGY STAR.
- ✓ Purchase lighting, appliances, home electronics, and other products that have earned the ENERGY STAR.
- ✓ Hire a professional to evaluate the home's energy efficiency.
- ✓ Visit energystar.gov/homeadvisor for more ways to improve efficiency and comfort.

* How you operate or use your home may lower your score. Activities and Equipment that often impact a household's score include: a home office or home business, swimming pool, spa, sauna, pottery kiln, or well pump, as well as a thermostat setting above 72°F for heating or below 70° for cooling.



ENERGY STAR Products



ENERGY STAR Products

- An opportunity to save energy with every purchasing decision
- More than 60 types of products
 - Lighting
 - Heating and cooling
 - Appliances
 - Office equipment
 - Home electronics
 - Battery charging systems
 - Commercial food service



ENERGY STAR Homes



ENERGY STAR Homes

- At least 15% more energy efficient than homes built to the 2004 IRC
- Include additional energy-saving features that typically make them 20–30% more efficient than standard homes

Typically Includes:

- ✓ Effective Insulation Systems
- ✓ High-performance Windows
- ✓ Tight Construction and Ducts
- ✓ Efficient Heating and Cooling System
- ✓ Appliances and Lighting
- ✓ Third-party Verified

Home Performance with ENERGY STAR



A whole-house approach to energy efficiency

- Utility bill savings of 20% or more
- Fewer drafts and more comfortable rooms
- Work performed by specially training contractors
- Third-party quality assurance to make sure work gets down right
- Reduced greenhouse gas emissions protect the environment.

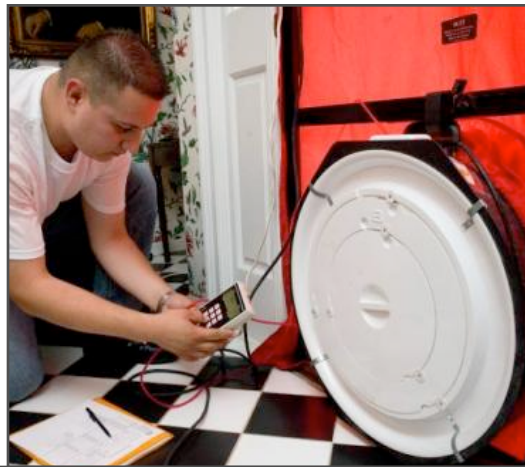
Typical home improvements

- ✓ Sealing air leaks
- ✓ Adding insulation
- ✓ Upgrading heating and cooling systems
- ✓ Replacing lighting and appliances

Whole-house Energy Audit



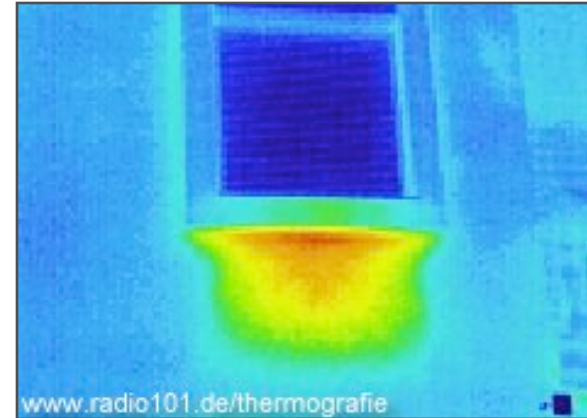
Building Scientists recommend a whole-house review with diagnostic tests and software analysis to identify what improvements are



Whole-house Solutions



This approach can diagnose what performance improvements are needed.



Benefits



Benefits



- Maintain your home – your most valuable asset
- Manage future energy costs
- Improve comfort
- Protect the environment





Federal Tax Credits For Energy Efficient Products

Not all ENERGY STAR products qualify for the tax credit



- These tax credits are available for a number of products at the highest efficiency levels, which typically cost much more than standard products.
- ENERGY STAR distinguishes energy efficient products which, may cost more to purchase than standard models, will pay you back in lower energy bills within a reasonable amount of time (5 yrs or less), ***without a tax credit.***

Two Types of Tax Credits



- Energy Efficient Products
 - 30% up to \$1,500
- Renewable energy products (solar, wind)
 - 30% with no upper limit

30% up to \$1,500 total:



- **Windows and Doors**
 - **Insulation**
 - **Roofs (Metal and Asphalt)**
 - **HVAC**
 - **Water Heaters (non-solar)**
 - **Biomass Stoves**
- * in 2009 & 2010
- * **ONLY** for existing homes, (NOT new construction) that are your principle residence

30% with no upper limit:



- Geothermal Heat Pumps
- Solar Panels
- Solar Water Heater
- Small Wind Energy Systems
- Fuel Cells (up to \$500 per .5 kW of power)**

* through 2016

* for existing homes & new construction

* does not have to be your principle residence, vacation homes are eligible too

**no vacation homes for fuel cells

Installation costs



ARE COVERED FOR:

- HVAC (Heating, Ventilation and Air Conditioning) systems
- Biomass Stoves
- Water Heaters (including solar)
- Solar Panels
- Geothermal Heat Pumps
- Wind Energy Systems
- Fuel Cells

ARE NOT COVERED FOR:

- Windows
- Doors
- Insulation
- Roofs



More Information:

- energystar.gov/taxcredits
- FAQs on energystar.gov
- **VA Energy Efficiency and Renewable Energy Rebates**

<http://www.dmme.virginia.gov/DE/ARRA-Public/SEPRbate.shtml>