

# Energy Efficiency: Choose the ENERGY STARs



Lists key features of the appliance you're looking at and the similar models that make up the cost range below.

What you might pay to run the appliance for a year, based on its electricity use and the national average cost of energy. The cost appears on labels for all models and brands, so you can compare energy use just like you would price or other features.

An estimate of how much electricity the appliance uses in a year based on typical use. Multiply this by your local electricity rate on your utility bill to better judge what your actual operating cost might be.

U.S. Government

Federal law prohibits removal of this label before consumer purchase.

# ENERGYGUIDE

## Refrigerator-Freezer

- Automatic Defrost
- Side-Mounted Freezer
- Through-the-Door Ice

XYZ Corporation

Model ABC-L

Capacity: 23 Cubic Feet

The maker, model, and size tell you exactly what product this label describes.

## Estimated Yearly Operating Cost

**\$67**

\$57

\$74

Cost Range of Similar Models

The cost range helps you compare the energy use of different models by showing you the range of operating costs for models with similar features.

**630** kWh

Estimated Yearly Electricity Use

Your cost will depend on your utility rates and use.

- Cost range based only on models of similar capacity with automatic defrost, side-mounted freezer, and through-the-door ice.
- Estimated operating cost based on a 2007 national average electricity cost of 10.65 cents per kWh.
- For more information, visit [www.ftc.gov/appliances](http://www.ftc.gov/appliances).



If you see the ENERGY STAR logo, it means the product is better for the environment because it uses less energy than standard models.

# Federally-Backed Brand



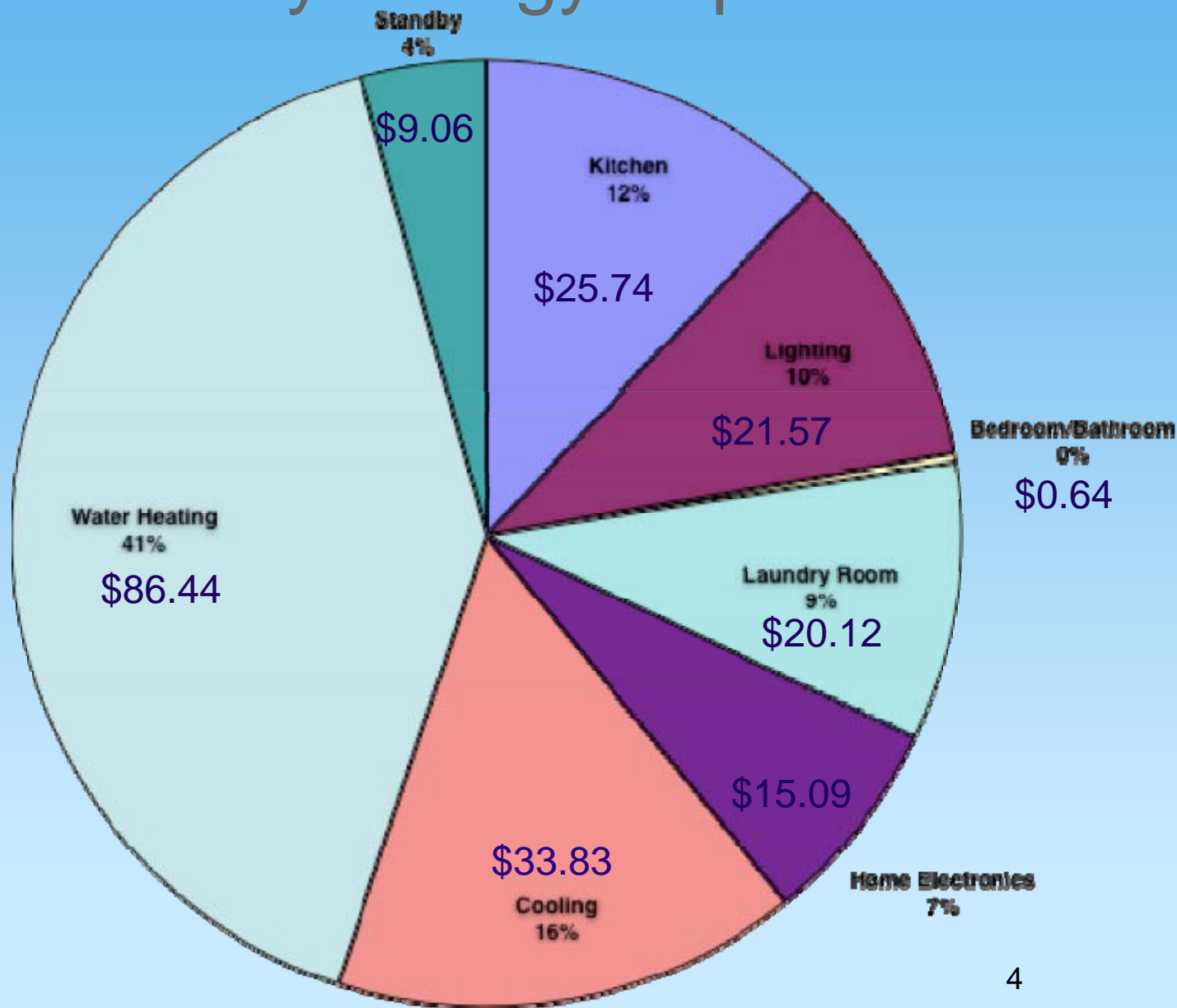
Indicates energy efficiency

Any manufacturer's products can qualify

“Cream of the Crop”

# Average Monthly Energy Expenditures

Monthly  
Total  
\$236.35



# Saving Energy in the Kitchen





# Electric Cooking

## Induction Cooktop

- Cooks with 90% efficiency
- Electric range = 65%
- Gas = 55%
- Use with Iron, Steel, Nickel, Various Alloys
- Safer- Cools Quickly

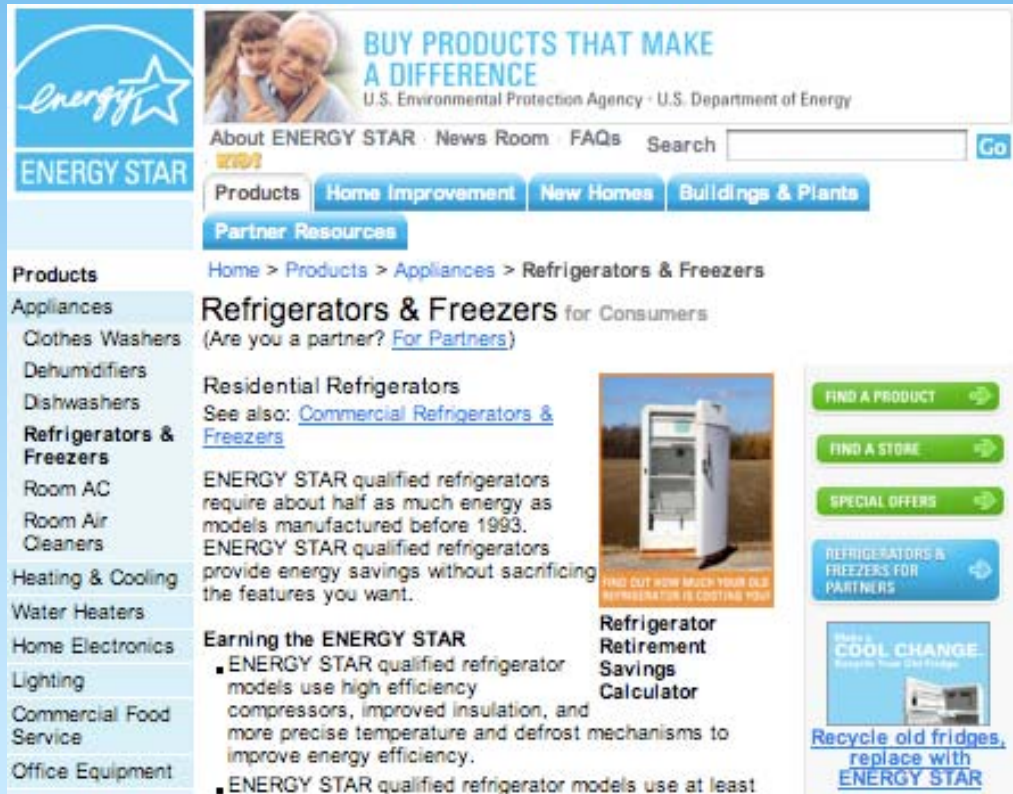


# ENERGY STAR Refrigerators

- 20% More Efficient than Current Federal Standard
- 40% More Efficient than 2001 Models
- Save \$300 Over Life of Product
- Replace a 10-year-old refrigerator to save \$100 each year



# Refrigerator Retirement Savings Calculator



**ENERGY STAR**

**BUY PRODUCTS THAT MAKE A DIFFERENCE**  
U.S. Environmental Protection Agency · U.S. Department of Energy

About ENERGY STAR · News Room · FAQs · Search  **Go**

**Products** | Home Improvement | New Homes | Buildings & Plants

**Partner Resources**

**Products** | Home > Products > Appliances > Refrigerators & Freezers

**Appliances**

- Clothes Washers
- Dehumidifiers
- Dishwashers
- Refrigerators & Freezers**
- Room AC
- Room Air Cleaners

**Heating & Cooling**

**Water Heaters**

**Home Electronics**

**Lighting**

**Commercial Food Service**

**Office Equipment**

**Refrigerators & Freezers for Consumers**  
(Are you a partner? [For Partners](#))

**Residential Refrigerators**  
See also: [Commercial Refrigerators & Freezers](#)

ENERGY STAR qualified refrigerators require about half as much energy as models manufactured before 1993. ENERGY STAR qualified refrigerators provide energy savings without sacrificing the features you want.

**Earning the ENERGY STAR**

- ENERGY STAR qualified refrigerator models use high efficiency compressors, improved insulation, and more precise temperature and defrost mechanisms to improve energy efficiency.
- ENERGY STAR qualified refrigerator models use at least

**Refrigerator Retirement Savings Calculator**

**Recycle old fridges, replace with ENERGY STAR**

Answer the questions below to find out how much your refrigerator or freezer costs to operate in energy and money and how much you can save with ENERGY STAR.

**Getting Started...**

1. I want to measure how much I could save if I:

- ☒ Replace my main refrigerator or freezer
- ☐ Remove my extra refrigerator or freezer

2. Find your [state's electricity price](#) per kilowatt hour or use the national average.

3a. Describe Your Refrigerator or Freezer:

Approximate Model Year:

Capacity (or Size):

**Calculate Savings**

— OR —

3b. The model number of my refrigerator is:

(Enter only the first few model numbers for [best results.](#))

**Find My Refrigerator**



## Your Information

Model	19.0-21.4 Cubic Feet Top Freezer
Electricity Rate	\$0.225
Annual Cost	\$192.83
Annual kWh	857 kWh



## your results...

You can save more than \$505 over five years by replacing your old refrigerator or freezer with a new ENERGY STAR qualified model!

Your model costs...



\$193  
per year  
to run

An ENERGY STAR qualified model costs...



\$82  
per year  
to run

Find Out How

Note: If your refrigerator or freezer is a newer, ENERGY STAR qualified model your results may not display significant savings.

# Best Practices

- Position
- Air-flow
- Clean coils
- Seals
- Temperature
- Keep Door Closed



“Close the door. It’s nice and cool in here!”

# Dishwashers

- Save \$100 each year in energy & water compared to hand-washing
- Save \$30 each year compared to non-qualified model



Vs.



# Laundry Room: Clothes Washer

- Save over \$100 annually
- Larger capacity
- Easier on clothes
- Save a shower per load
- Reduce drying time



# Clothes Drying

Up to 10% of Home Energy Use

## Best Practices

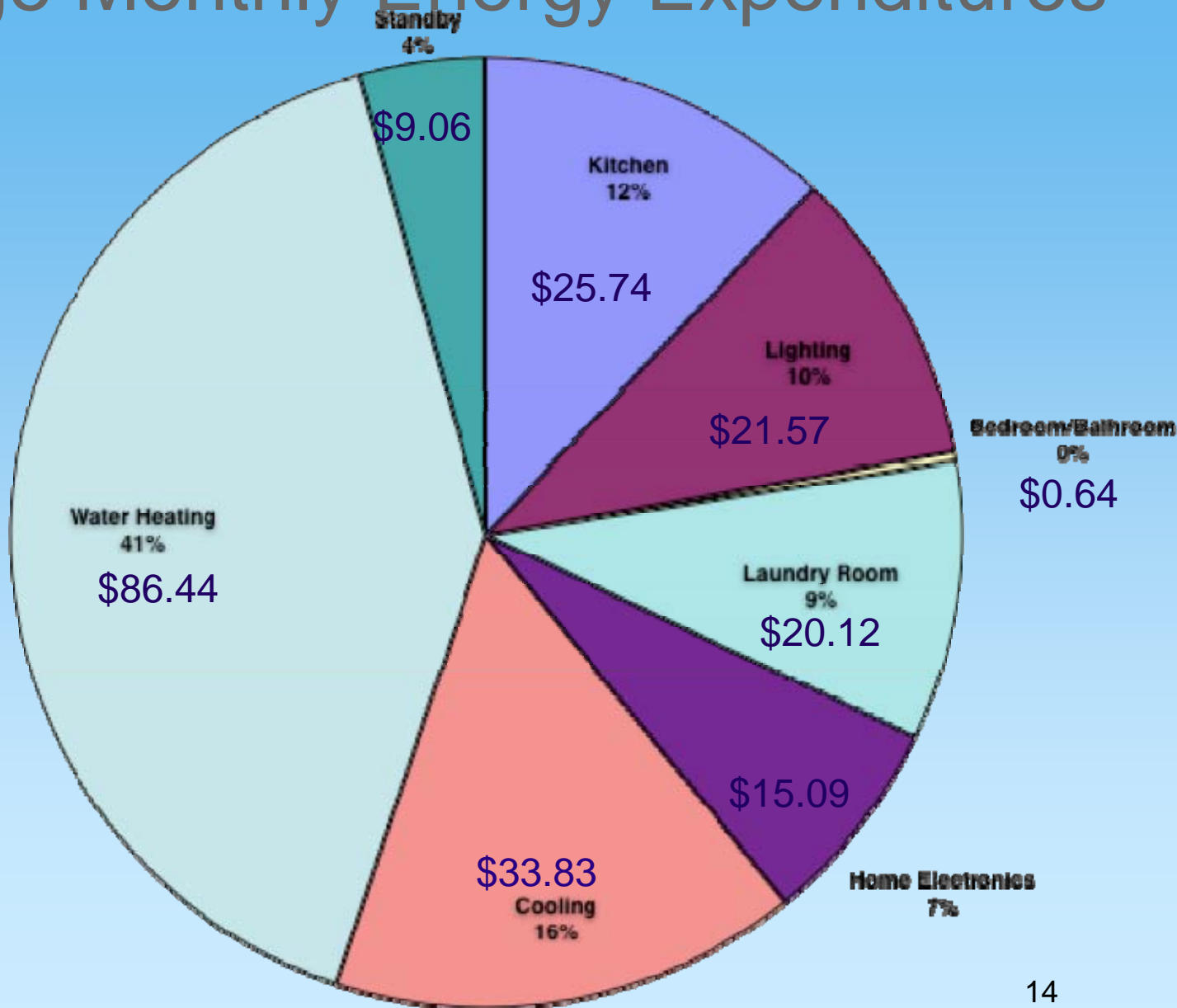
- Moisture Sensor
- Clean Lint Filter
- Proper Vent
- Air Intake



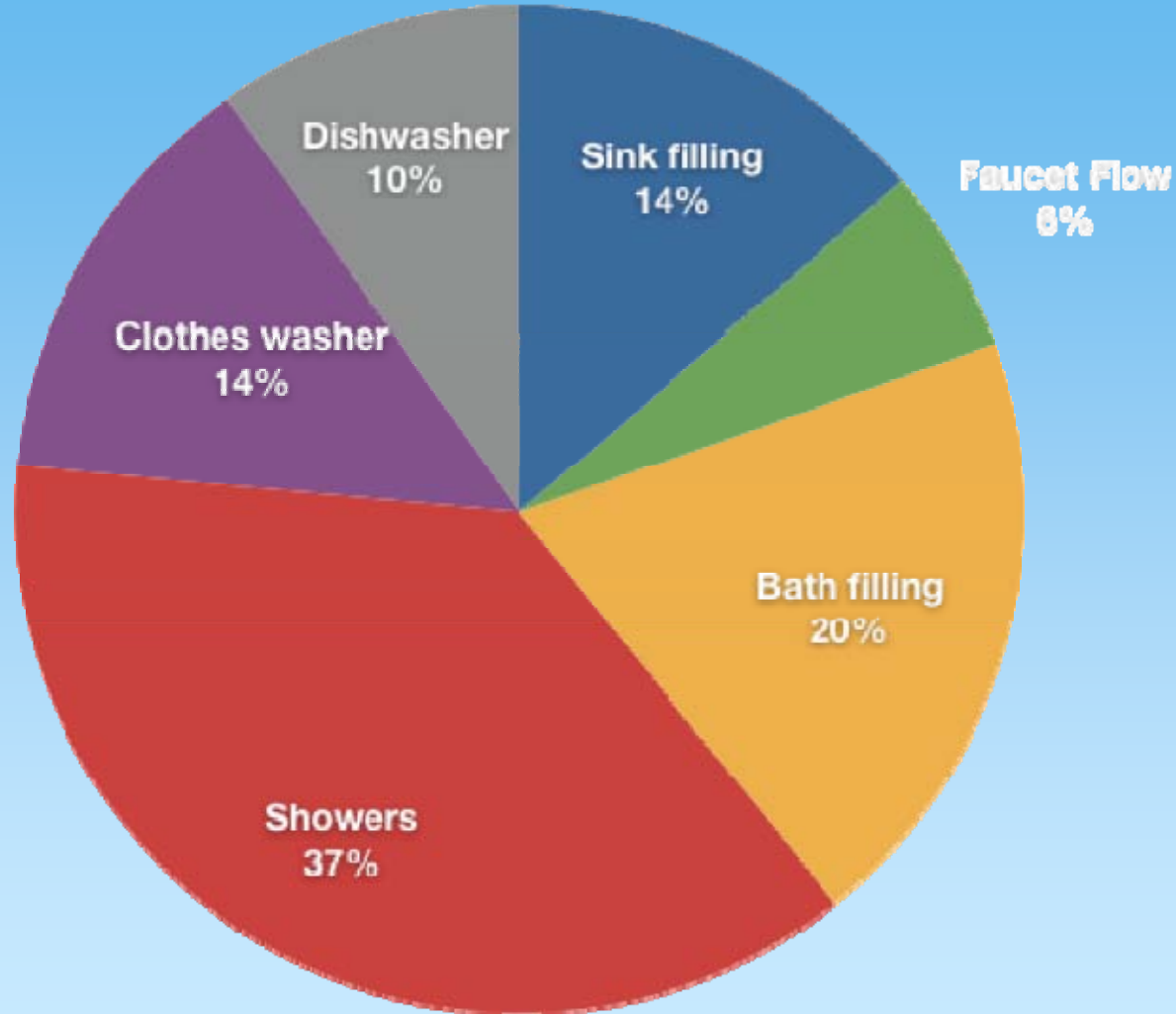


# Average Monthly Energy Expenditures

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# Hot Water Use Characteristics



Cut down on water use in showers and sinks with low-flow fixtures

# Water Heating

## Heat-Pump Water Heaters

- Cut Energy Use in Half
- Cool Space they're in
- Coming Later this Year
- Save over \$500/Year

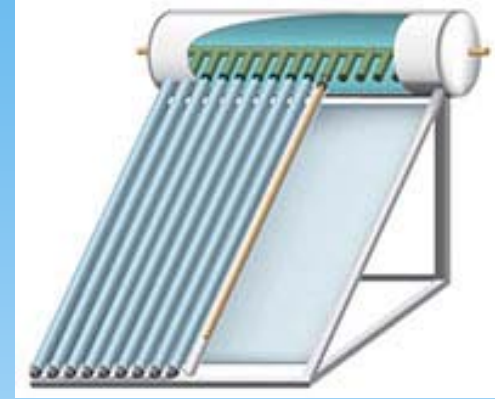




# Water Heating

## Solar Water Heaters

- Cut Energy Use in Half
- Last Up To 20 Years
- Federal Tax Credits
- Save over \$500/Year



Evacuated Tube



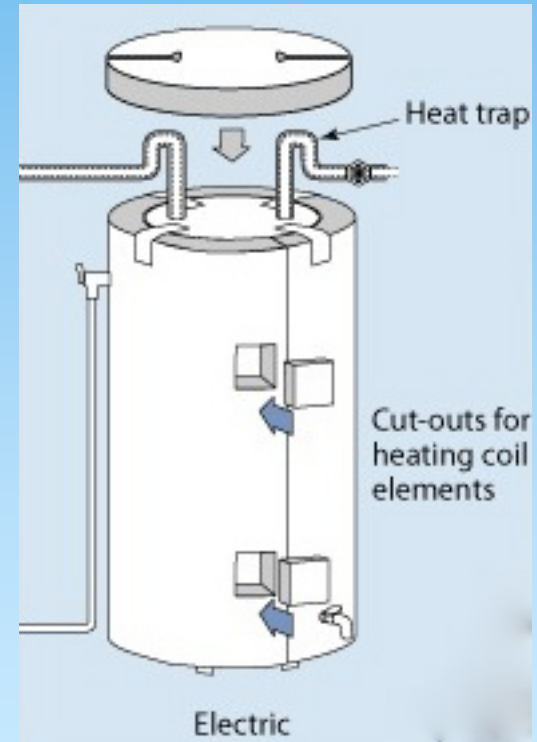
Batch



Flat-Plate

# Water Heating Best Practices

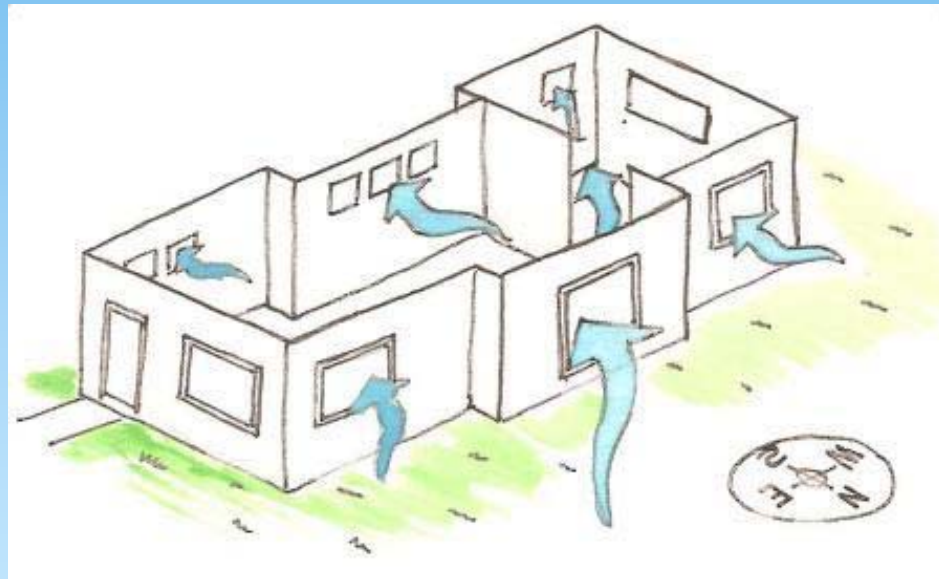
- Insulate Tank
- Insulate First 6' of Pipes
- Temperature
- Timer





# Air Conditioning

- After Envelope
- Natural ventilation
- Properly Sized Units
- Maintenance
- Fans



Window placement encourages natural ventilation

# SIZING YOUR AIR CONDITIONER

Area To Be Cooled (Square Feet)	Capacity Needed (BTUs per hour)
100 to 150	5,000
150 to 250	6,000
250 to 300	7,000
300 to 350	8,000
350 to 400	9,000
400 to 450	10,000
450 to 550	12,000
550 to 700	14,000
700 to 1,000	18,000
1,000 to 1,200	21,000
1,200 to 1,400	23,000
1,400 to 1,500	24,000
1,500 to 2,000	30,000
2,000 to 2,500	34,000

Also Consider:

- Shady vs. Sunny Room
- Occupancy
- Kitchen
- Placement

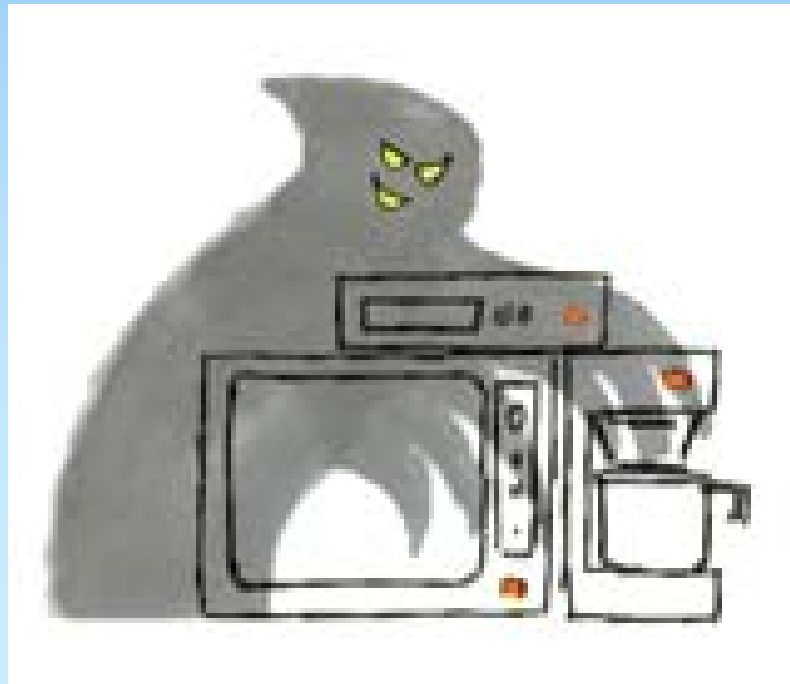
# ENERGY STAR Air-Conditioner

- 10% Less Energy
- Quieter
- Save \$20 Each Year/Unit
- Programmable Controls



# Phantom Loads

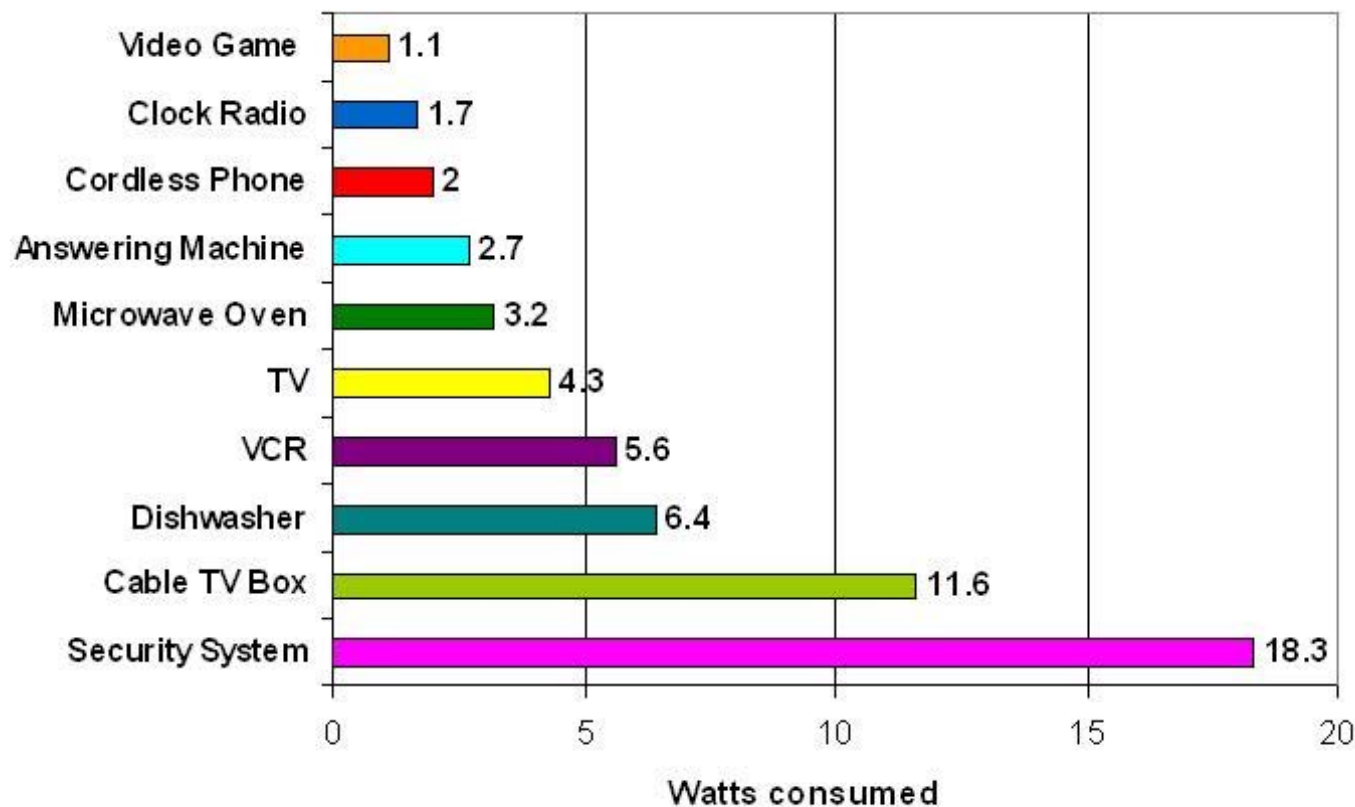
- Energy Vampires
- Almost 5% Energy Bills
- \$10 / Month for Nothing



Smart Power Strip

# Phantom Loads

**Phantom Loads:** Small electrical loads from appliances that constantly draw power when plugged, even if turned OFF



Total = 56 Watts/hr while off!



# Average Monthly Energy Expenditures

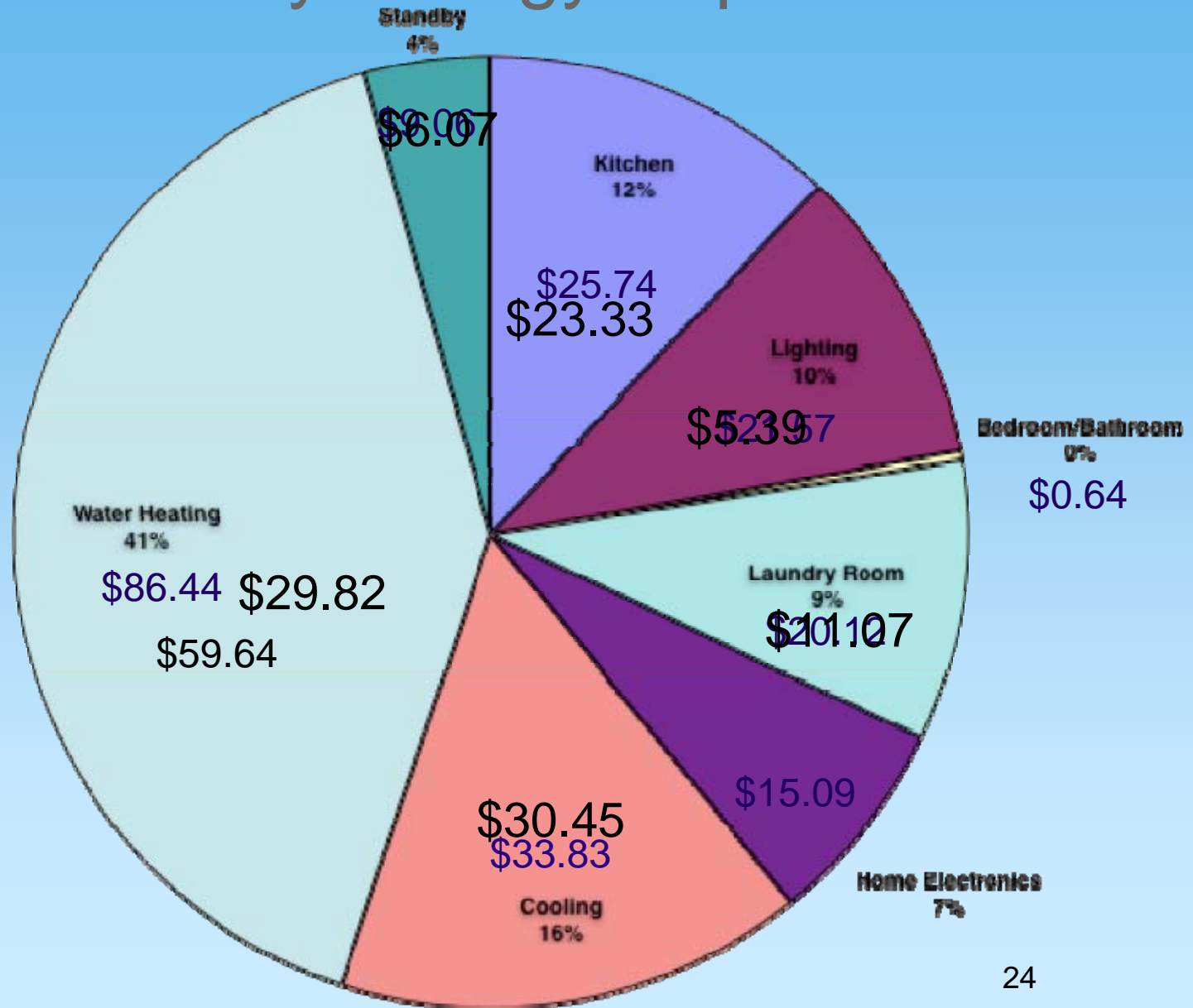
Monthly  
Total

Before  
\$236.35

After  
\$156.51

Savings  
\$78/month

\$936/Year



# You can make a difference!

## QUESTIONS?

