



Sierra Club
Presents:
Simple and Easy
Energy Savings
Tips!



Massachusetts Chapter
2005



This presentation discusses home energy usage and gives homeowners ten simple energy saving tips to help reduce energy consumption and lower utility bills, saving both money and the environment.



Part One:
Energy Consumption



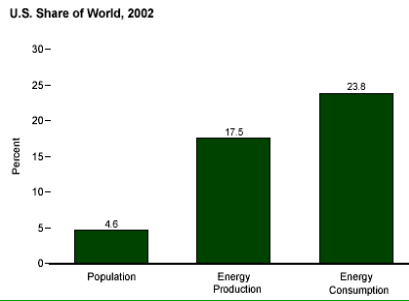
Home Energy Usage

- Americans already spend \$115 billion on home utility bills per year.
- The average American home spends **\$1,400** per year.
- As oil and other energy prices continue to rise, homeowners will continue to face increased energy costs.

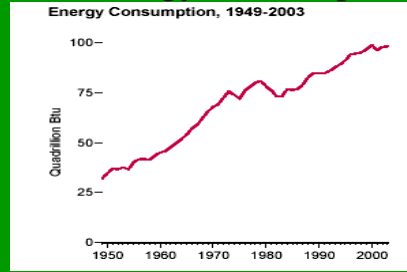


Ref: Energy Information Administration

Americans are 4.5% of the world's population
but consume 24% of the world's energy



Our Energy Consumption



Unless we make changes in our lives,
energy consumption will continue to increase!



Ref: Energy Information Administration

World Energy Supply

- World demand for energy is steadily increasing.
- Nations like China and India are now demanding more energy than ever before and are in direct competition with us for resources.
- Increased demand keeps prices high as supply is limited.



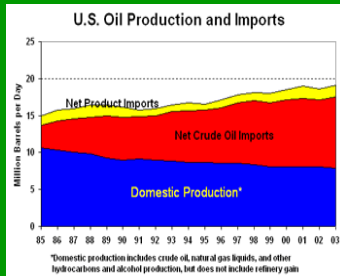
Where does our energy come from?

- The United States imports over 50% of its energy.
- A growing percentage of our oil comes from hostile regimes.
- Energy is as much a national security issue as it is an environmental issue.
- Unstable energy markets can also hurt our economy.



Oil Consumption

- In 2004, Americans consumed 20.4 million barrels a day.
- Of this, we imported 11.8 million barrels of oil a day from the world.

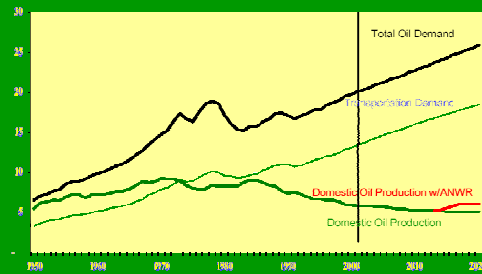


Ref: Department of Energy



Oil consumption will continue to **rise** as domestic production **decreases.**

US Oil Consumption (million barrels per day)



Ref: US Senate



What Does This Mean for YOU?

- The United States will continue to need large quantities of energy in order to continue to grow.
- World energy demands will continue to grow keeping prices high.
- As we import more of our energy, we will be more susceptible to price shocks and geopolitical conflicts.
- Continued fossil fuel decreases air quality and contributes to changes in our climate.
- Most importantly rising demand will lead to higher utility bills for **YOU!**



Part Two:

Ten Simple Energy Saving Tips



Energy Savings

- Energy efficiency can help reduce your utility bills in the face of rising prices by up to 50%!
- Energy efficiency makes you less susceptible to price increases and helps reduce our nation's energy usage.
- Energy efficiency creates excess energy supply reducing the need build new power plants.
- Energy efficiency is not only good for the environment but helps lower prices, reduces imports, and reduces your energy bill!



Tip #1.

Buy Energy-Efficient Compact Fluorescent Light Bulbs.

They use 66% less energy and last 10 times as long!

One bulb used 5 hours a day will last 5.5 years!

Replacing 25% of your lights in high use areas can save 50% of your lighting energy bill!

Replacing a 60 watt with a 15 watt CFL can save you **\$50 dollars** over the life of the bulb!



Tip #2

Set your hot water tank to 120 degrees.

- This is a comfortable temperature for most people:
 - You won't get scalded!
- You will save 25 kilowatt hours a month.

*This can save you **\$35-40** a year.*



Tip #3

(More water heater tips!)

INSULATE! INSULATE! INSULATE!

20% of a water heater's energy is used while on "standby."

Insulate your water heater and pipes by wrapping them in insulation blankets.

This helps keep water hotter longer and requires less energy to reheat the water!

*Can save you an additional **\$24** a year!*



Tip #4

Purchase a Programmable Thermostat (SET IT AND FORGET IT!)

Automatically adjusts your temperature settings during the day for you!

It will turn the heat off when you leave and will turn it on when you come home!

Programmable thermostat's have multiple settings for all times of the day.



Tip #5

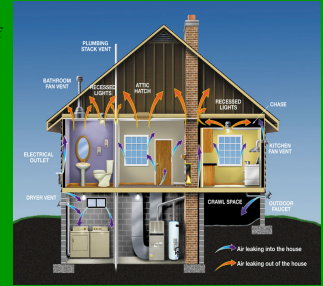
SEAL THE LEAKS!

Sealing the leaks in your house reduces the flow of hot and cold air in and out of the house!

This air flow can add up to as much as one open window!

Sealing the leaks reduces the need to heat or cool your home!

Use caulk and weather stripping to seal air leaks in your house.



Tip #6

Use a power saving program for your computer!

Computers are one of the least energy efficient devices in your house.

Power saving programs *automatically* hibernate your monitor and system.

Can save between **\$50-100** annually.



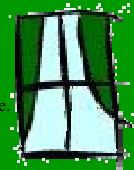
Tip #7

Buy insulation for your windows

A lot of heat transfer occurs through your window.

This can let hot air escape or let cold air into your house creating the need to further heat or cool your home.

Plastic liner helps insulate your windows by limiting air transfer, reducing the need to heat or cool your home.



Tip #8

Use low flow water products!

Showers use 37% of a house's hot water!

Leaky faucets can also add up!

One drip a second costs \$20 dollars a month.

Low flow showerheads and faucet aerators can cut your hot water consumption in half.

Can save anywhere between \$100-300 a year.



Tip #9

Get an Energy Audit

All Massachusetts utility companies offer **FREE** household energy audits.

It only takes 1-2 hours to complete!

Companies offer up to \$1500 in rebates to complete recommended projects! (insulation, water heaters, compact fluorescent bulbs, energy-efficient appliances, etc.)

The money for this comes from money you already paid for in your utility bill! **USE IT!**

CALL: 1-866-527-7283 to schedule your energy audit!



Tip #10

Buy Energy Star Products!

They use less energy, water, and last longer.

They reduce pollution.

They can help lower your energy bill by an additional 30%.

Utilities offer rebates to help pay for Energy Star products!



Conclusions

- American households consume a lot of energy per year and consumption continues to increase.
- The average family spends **\$1,400** a year on energy bills.
- Energy efficiency can help cut your bill in half!
- Our recommendations cost **\$70** but will save you about **\$350** year or more!

