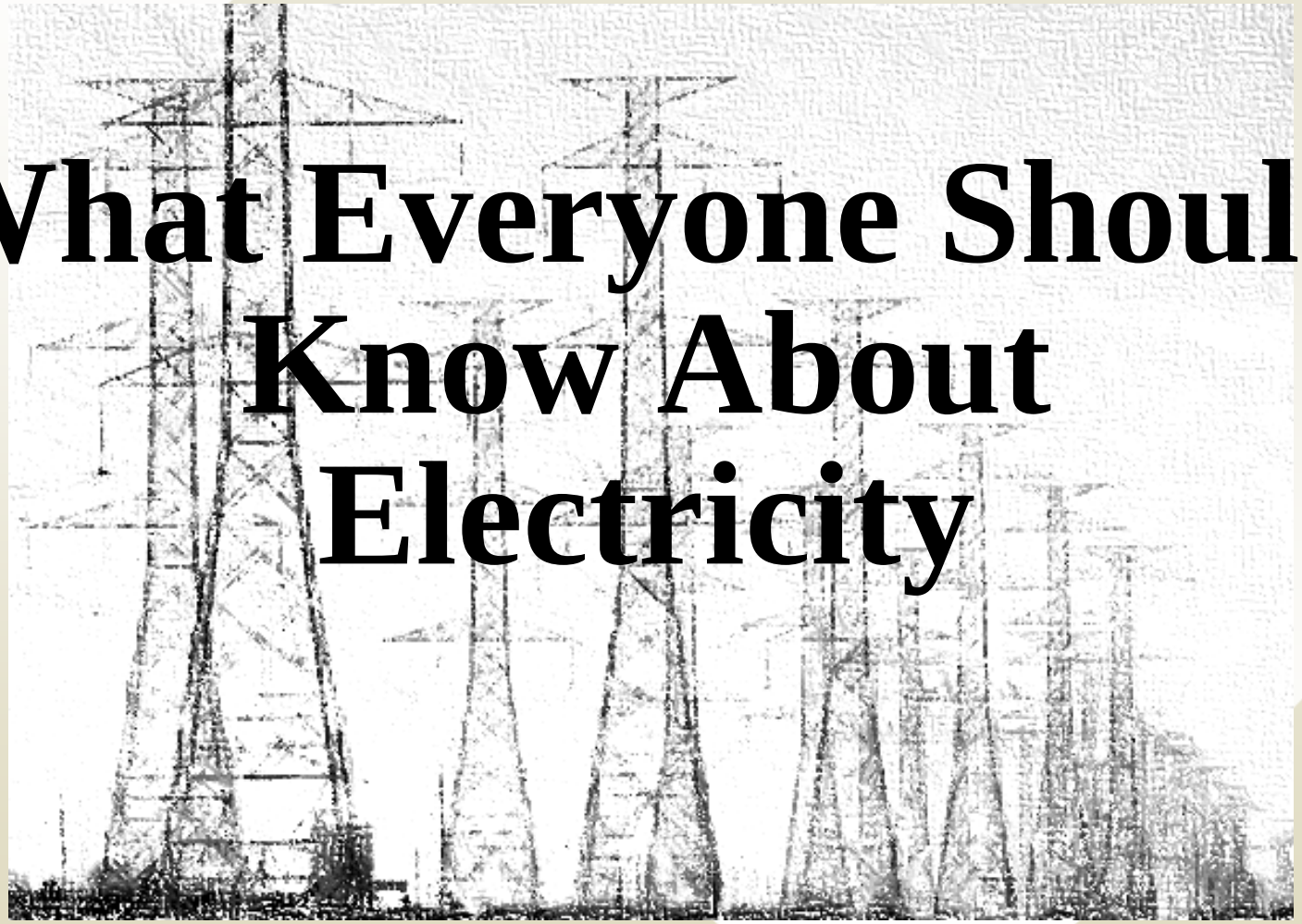
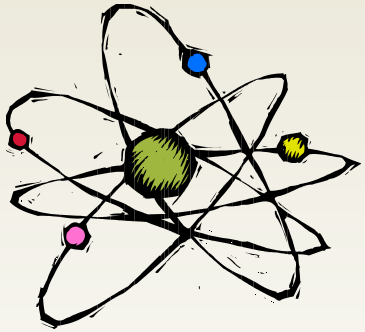
What Everyone Should Know About Electricity



What is Electricity?

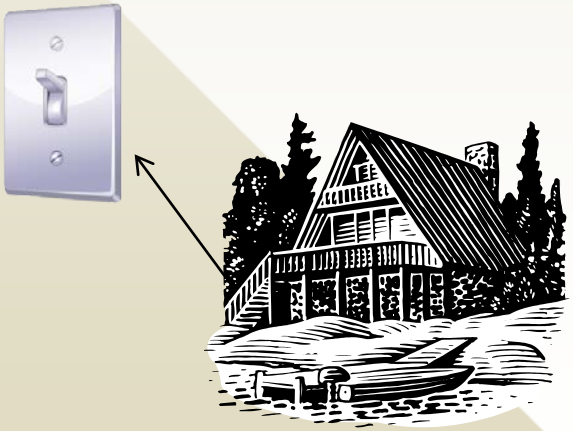
- It’s the most common, most versatile source of energy in the American home.

Electricity
is the attraction between tiny atomic particles. It occurs naturally all around us!



Power Plants
generate electricity in large amounts and distribute it to homes, factories, offices, etc.

Electric energy is ABUNDANT, CLEAN, and EASY to Control.



No wonder Americans today rely on electricity more than ever before.

Why Should I Know About Electricity?

Because:

- you **USE** it
- you **PAY** for it.

By LEARNING HOW TO MANAGE your home's electrical system MORE EFFICIENTLY, you can—

Save Money

Energy-wise practices can help keep electric bills down!

Save Energy

Help conserve our dwindling resources and preserve the natural environment.

Play It Safe

Eliminate any electrical hazards in your home.

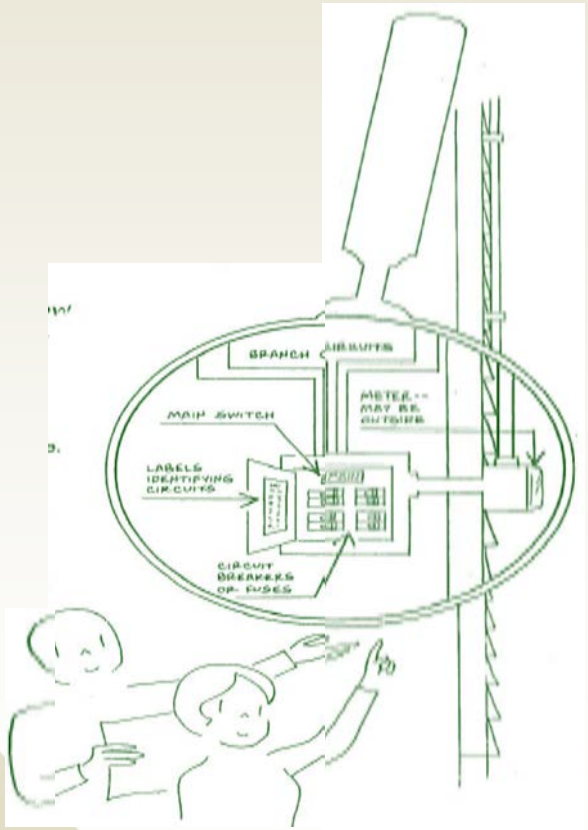
In the following pages, are SOME ESSENTIAL FACTS everyone should know about house power.

How To Find The Main Electric Circuit Box

The control center of your electrical system, the main circuit box, sends power from outside to various parts of your house, along separate circuits.

Make sure you know:

- Where main circuit or fuse box is located.
- Where main switch is. It controls all power coming into the house. It's usually inside circuit box, but may be outside.
- Where each circuit goes. One circuit leads from each fuse or circuit breaker to power a specific appliance or area of your house. Circuits should be clearly labeled to show what area or appliance each services.



How To Replace A Fuse Or Re-Set A Circuit Breaker

Fuses and circuit breakers are “electric safety guards” that protect against dangerous overloads or short circuits.

If electric overload occurs, the fuse blows or circuit breaker trips, cutting off power to that circuit.

To Replace A Blown Fuse—

1. **Disconnect**
   appliance causing overload or short circuit.
2. **Shut Off**
   main switch while you change fuse.
3. **Replace**
   blown fuse with new one of proper size (15, 20, or 30 amp). If in doubt, use 15 amp fuse.
4. **Turn On**
   main switch to restore power.

Be sure fuse is **PROPER SIZE** and **TYPE** or your wires may overheat and cause a fire!

To Reset A Circuit Breaker—

1. **Disconnect**
   appliance causing overload or short circuit.
2. **Turn Switch**
   to on to reset and restore power.

Note:

If fuses blow or circuit breakers trip repeatedly, check appliances or **CALL YOUR ELECTRICIAN** to diagnose the problem.

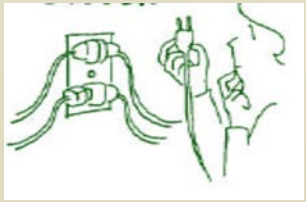
How To Tell If Your Wiring System Is Adequate

Your house is UNDERWIRED if--

Fuses Blow
or circuit breakers
trip frequently.

Lights Dim
or flicker.

Outlets are in
short supply.



Appliances are slow to
heat.

TV picture
shrinks.

Motors falter or
burn out.

Inadequate wiring means—

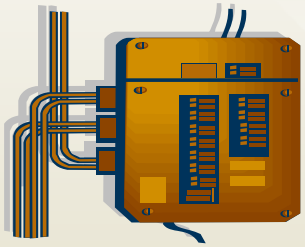
Wasted Power
Appliances must run longer to do their jobs. They use extra electricity and COST YOU EXTRA MONEY.

Fire Danger
Overloading circuits and outlets can cause wires to overheat and start fires. Short circuits and cracked insulation are fire hazards, too.

To Correct A Wiring Deficiency In Your Home,

Consider a new or improved system.

A circuit box of at least 100 amps to handle most modern home, 150 to 200 amps is even better.



Call an electrical contractor.

What you'll need:

Enough Branch Circuits
For present needs, plus some to spare. Have a separate circuit for each major appliance.

Compare the cost of complete rewiring with the cost of a series of additions to an existing system.

Plenty of Outlets, Fixed Lights, Switches
--one outlet every 4 feet in the kitchen, every 6 feet in other rooms.

Thinking about a new home or addition?
Plan for an electrical system that will meet present and future needs.

How To Choose Energy-Efficient Appliances

Appliances that use the least energy to do their jobs are a good investment—they'll save you money in the long run!

All major appliances in the U.S. must meet efficiency standards set by the government.

When you shop for an appliance, consider—

Size

Buy the right size for your needs. If the appliance is too big or too small, your electric bills will be higher than they should be.

Wattage

Find out how many watts (how much energy) the appliance uses. Compare with others that do the same job.

Before buying an appliance, make sure your electrical system can handle it. You may need a separate circuit for a large appliance.

Efficiency

Black and yellow Energy Guide tags let you compare the energy costs of competing products. Tags may be labeled with an efficiency rating number. The higher the number, the more efficient the appliance.

Construction

Is it built to last through years of use?
Constructed to avoid energy loss?
Read advertisements, manufacturer's data. Talk to salespeople and to owners and users of the appliance you're considering.

Accessories

The conveniences and extras on some appliances may not be worth the extra energy and higher repair costs. Decide what you really need.

Price

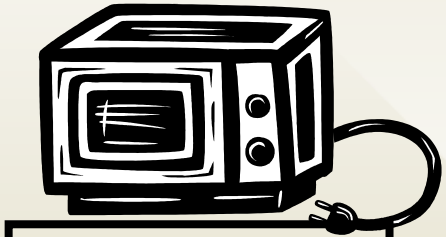
Don't pay more than you have to a lower-priced model might do the same job for the same amount of energy.

But sometimes a more expensive appliance with a better efficiency rating could save you money in the long run. Compare.

How To Use Appliances Most Efficiently

Every time you use an appliance, ask yourself “Is this the most efficient way?”

Through efficient use, you can:
- Save money
- Conserve energy
- Get the most from your appliances.



Follow these Energy Saving tips when you use:

Water Heater

Save hot water by taking showers (and limit them to 5 minutes) instead of baths. Fix leaky faucets. Set thermostat at 120 degrees (if you have a dishwasher, check the manual). Insulate heater, pipes.

Refrigerator or Freezer

To keep heat out, replace door gasket when worn. Don’t open unnecessarily. Keep full but not overloaded.

Electric Heating

Have a tight, well insulated house. Caulk windows, weather-strip doors. Keep thermostat at 65 degrees during the day, lower at night. Keep ducts, vents clean—dirt and dust hinder heat flow.

Washer/Dryer

Do full loads only. Use warm or cold water—not hot. Keep lint trap clean. Vent dryer. Don’t over dry clothes.

Air Conditioner

Choose correct size for your needs. Keep thermostat at 78 degrees or higher. Close drapes during the day to keep sun out. Clean filters often. Do heat producing jobs in cooler hours.

Range

It uses up to 16,000 watts—so don’t waste energy here! Fit pot size to burner. Cook several dishes at once in oven. Keep oven door closed when on. Avoid preheating.

Lights

Light only areas in actual use. Use lower wattage bulbs where practical. Use fluorescent lights when possible—they use less energy.

How To Estimate Cost Of Operating Any Appliance

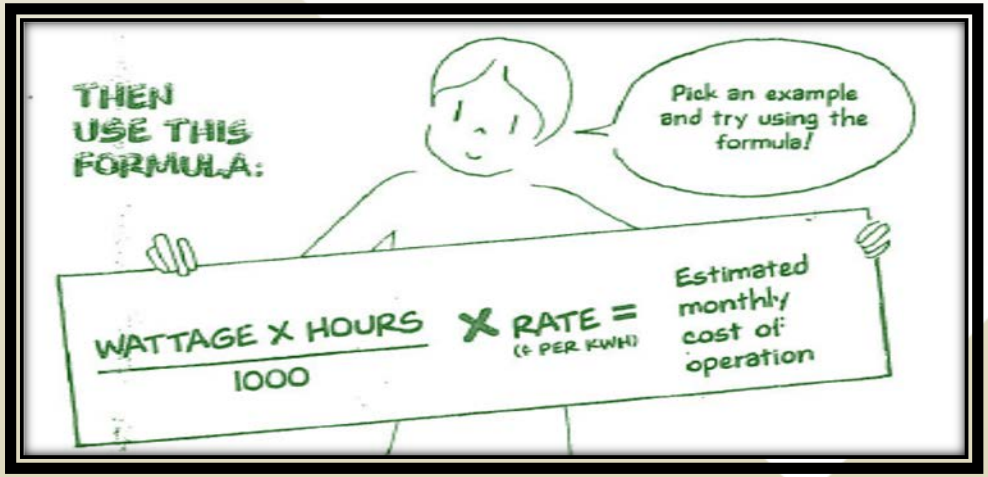
Estimating operating costs can help you manage your electricity use—and the size of your bill!

First you need to know 3 things—

Wattage

Hours Used Per Month
(estimated)

Rate
(what you pay per kilowatt-hour)
Usually on back of your electric bill.



How Your Electric Bill Is Figured

1. Your meter is read.

2. Your previous reading is subtracted from your current reading. This tells how many kilowatt-hours of electricity you have used during this period.

3. Your bill is figured using rates set by the electric company and government regulatory agencies.

Your rate is based on

- **How much electricity you use.**

Generally rates get lower, the more electricity you use. But in some cases rates go UP again at some point to discourage excessive use.

- **When you use it.**

Your rates may be higher during “peak” hours, lower during “off-peak” hours.

Try reading your own meter!

It’s easy. Just remember: when the pointer falls between two numbers, read the smaller one.

Make two readings one billing period apart (usually 30 days). Then subtract the first reading from the second. The result should be close to the number of kilowatt-hours shown on your bill.

Safety Tips

for using electricity

Don’t overload circuits
--a major cause of home fires. Don’t operate several high-powered appliances at once on the same circuit.

Avoid “octopus outlets”
which can easily overheat and could start a fire.

Turn off appliances
as soon as you finish using them.

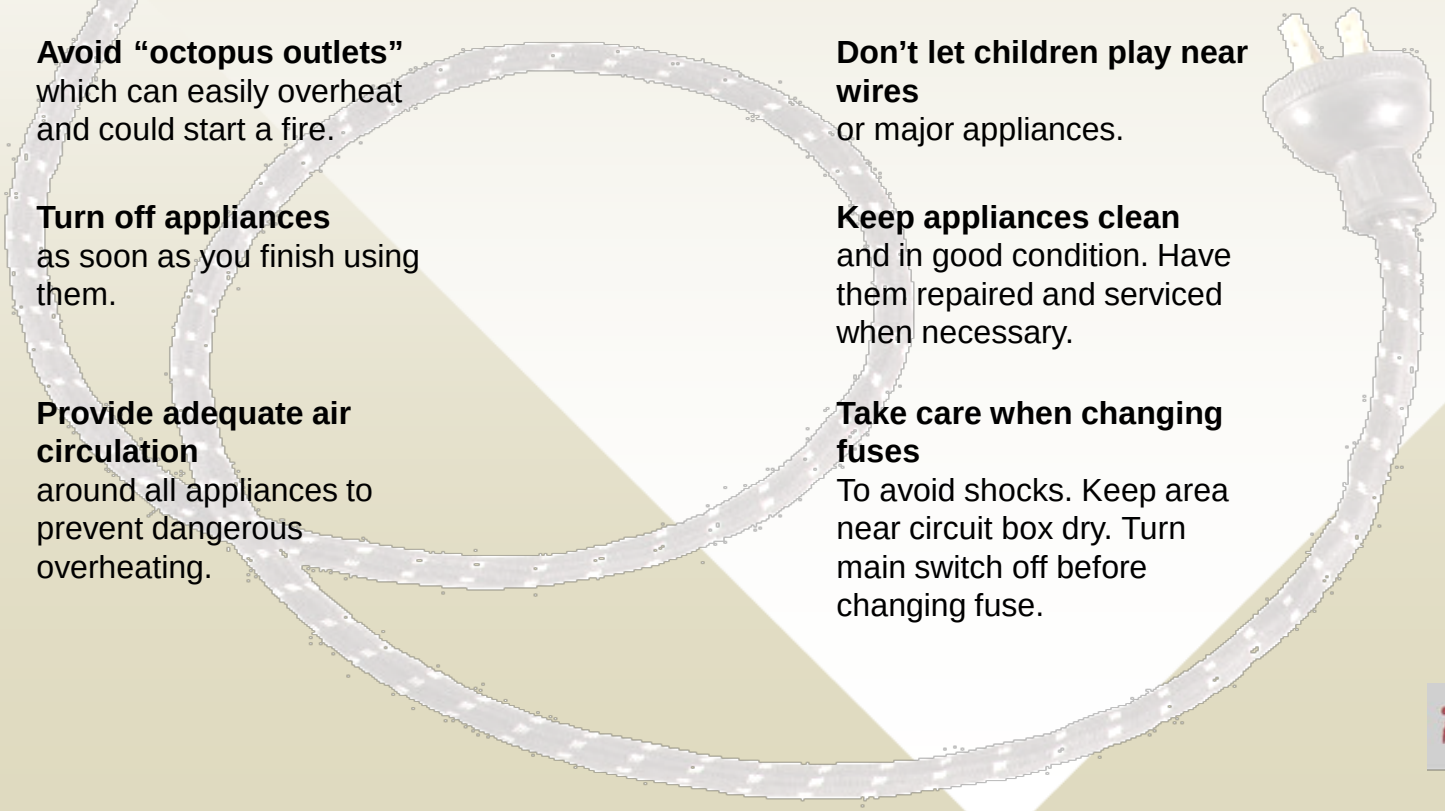
Provide adequate air circulation
around all appliances to prevent dangerous overheating.

Inspect wires, plugs
regularly and replace any that are worn or frayed. Don’t run cords under carpets or across doorjambs.

Don’t let children play near wires
or major appliances.

Keep appliances clean
and in good condition. Have them repaired and serviced when necessary.

Take care when changing fuses
To avoid shocks. Keep area near circuit box dry. Turn main switch off before changing fuse.



Use Electricity Wisely

Use Electricity Wisely

✓Remember the rules for safety
--and follow them.

✓Choose Energy-
Efficient appliances.

✓Do What you can to save energy
--in the home.

✓Understand how your electrical system works
--and what to do when problems arise.

Welcome
to the convenient and
reliable world of electricity.