

# **WEATHERIZATION ASSISTANCE PROGRAM (WAP)**



## **ENERGY CONSERVATION TIPS**

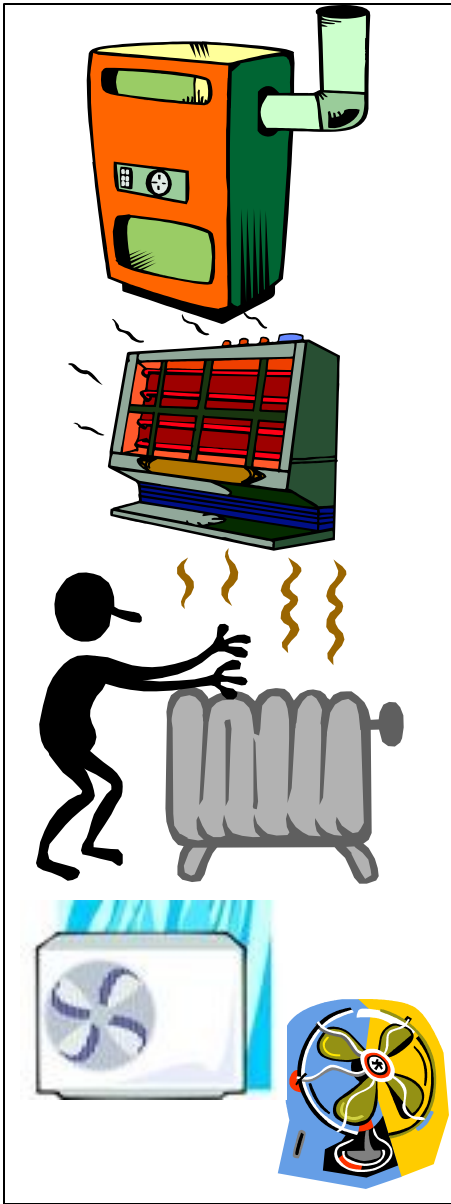
# WAP

The Weatherization Assistance Program is federally funded annually by the U.S. Department of Energy and the U.S. Department of Health and Human Services. The mission is to reduce the monthly energy burden of low-income households by improving the energy efficiency of the home.

Each of us should implement these energy conservation tips on our own homes and follow recommended conservation practices to do our part to conserve our resources and reduce individual energy consumption.

# Home Energy Use

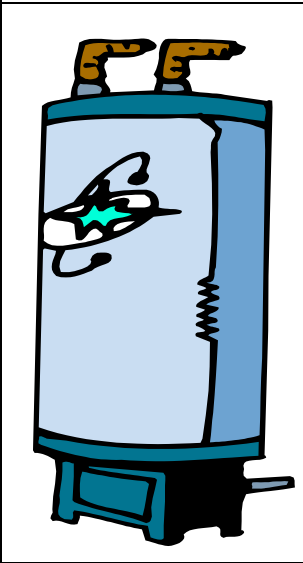
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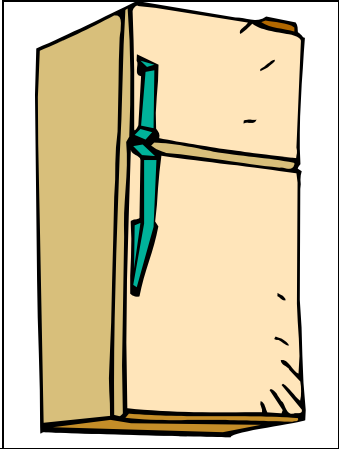
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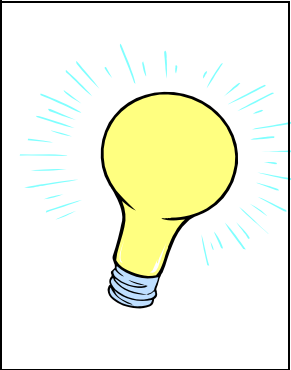
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Heating & Cooling

Cooking & Appliances

Hot Water

Refrigerator

Lighting

# **Home Energy Use**

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First you need to look at how your home uses energy. This graph shows which areas of the average house consume the most energy. By looking at these areas and how much energy they use, we can then determine which areas can provide the biggest savings.

## **Heating and Cooling**

The biggest energy and money drain comes from heating and cooling your home. That is why Weatherization is so important. A reduction in the cost of heating your house results in a bigger reduction in the cost of utilities overall.

## **Cooking & Other Appliances**

Cooking, clothes washer & dryer, television, microwave and other appliances make up a large part of your energy cost. We will talk about how to save energy in this areas.

## **Hot Water**

Water heating is the third largest energy expense in your home. Saving money on hot water can be done in different ways. One way is to reduce the amount of hot water used. Another is to make the water heater work less. This can be done by using low flow shower heads, faucet aerators and insulating your water heater. By setting the water temperature lower, the water heater doesn't have to heat the water as often.

## **Refrigerator**











The refrigerator is running whether it is hot or cold out, therefore it is easy to get savings from it all year long. By making sure the door seal is tight, storing food in containers along with choosing the appropriate temperature, easy energy savings can take place year round.

## **Lighting**

Lighting makes up a smaller part of your energy use, but it is the easiest one to save in. Increasing your lighting efficiency is one of the fastest ways to decrease your energy bills. By replacing the traditional incandescent bulbs in high-use areas with compact fluorescent lights (CFLs), you can save about 50% on the amount of energy used for lighting.

# Average Monthly Appliance Costs

[Based on 8.5 cents per kwh]

Refrigerator		\$8.04
Washer (warm water)		\$6.76
Clothes Dryer		\$6.11
Freezer		\$5.47
Elect. Cooking		\$4.66
Dishwasher		\$4.18
Well Pump		\$3.54
Microwave		\$1.28
Television		\$1.28
Home Computer		\$ .96

# Monthly Appliance Costs

This graph shows approximately how much it costs per month to operate everyday appliances within the house.

## **Refrigerator**

Refrigerators with the freezer on top are more efficient than those with freezers on the side.

## **Washer**

Of the most often used appliances in a house, the clothes washer can cost the most to run. If a hot wash and rinse cycle are used, it will cost more to run the washer and water heater to heat the water. If a cold wash and rinse cycle are used, which will get clothes just as clean, it will cost much less to operate.

## **Clothes Dryer**

The dryer is a definite potential for energy savings in a house, especially during the summer months. If you hang clothes outside to dry this money is saved.

## **Freezer**

Keep freezer door closed. Be sure the door seal is tight. The freezer temperature should be kept at 0 degrees F.

## **Cooking**

You can save a lot of money on cooking if you microwave food whenever possible rather than using the stove or oven. A microwave cost much less a month to run.

## **Dishwasher**

If the dishwasher is completely full every time you wash, you will be washing fewer loads and therefore saving money.

## **Well Pump**

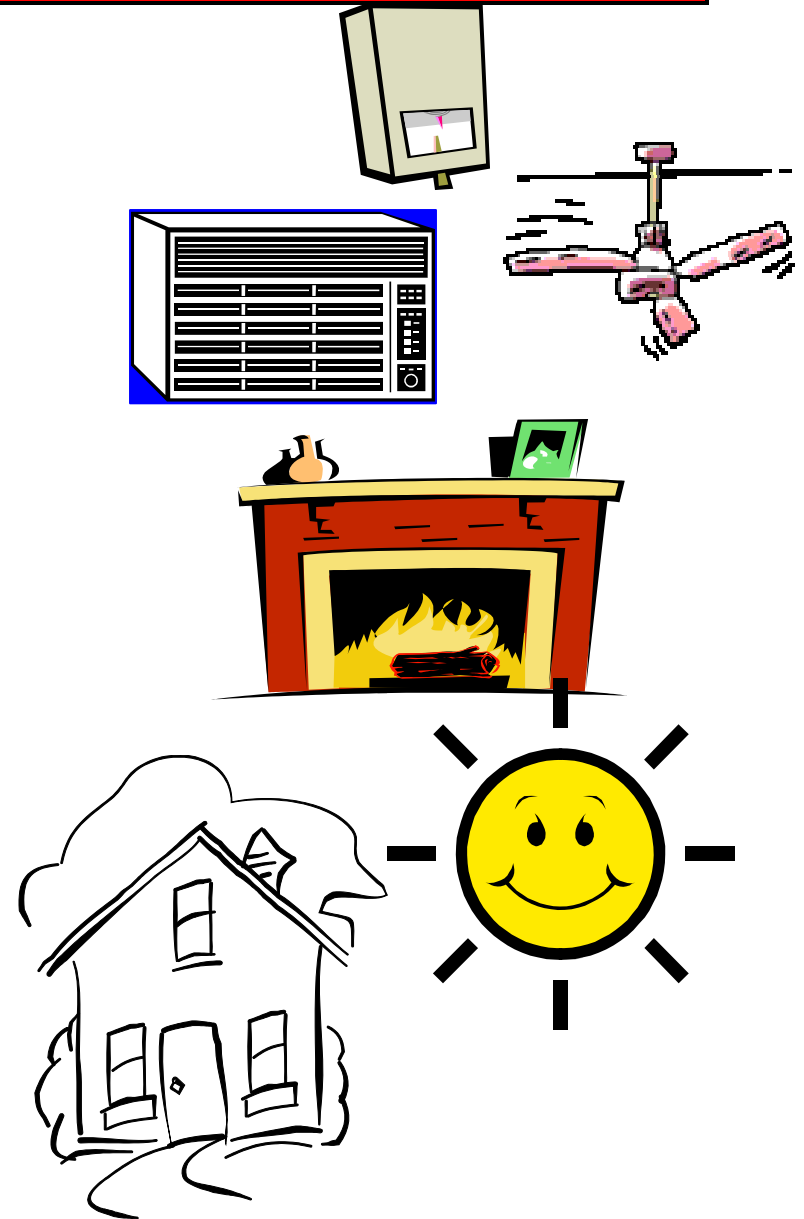
Keep water turned off when not in use to prevent the well pump from running.

## **Television**

Many people leave the TV on for background noise and many times it runs much longer than 6 hours a day. If you make sure the TV is off when you are not watching it, you can save that money.

# Heating and Cooling Tips

- Set the thermostat for savings
- Install a programmable thermostat
- Keep your heating and air conditioning filters clean
- Make sure air registers are unblocked
- Clean ductwork, vents, and heaters
- Don't build a fire when the furnace is on
- Close the vent damper if the fireplace is not being used
- Let the sun warm your home when possible



# Heating and Cooling Tips

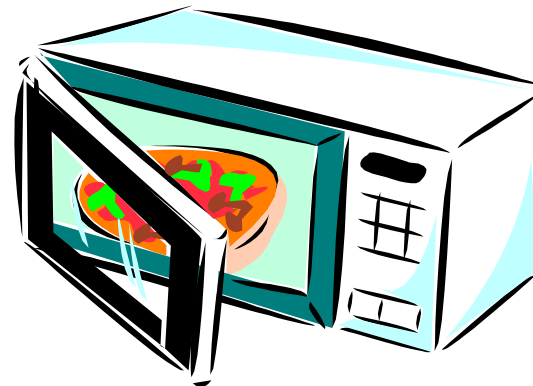
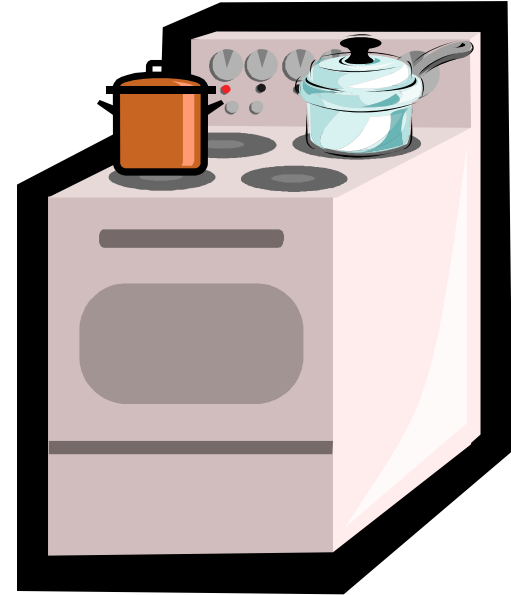
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- **Raising the thermostat temperature cost you dollars.** Don't turn up the thermostat to make yourself feel more comfortable when putting on another layer of clothing can accomplish the same result. Lower the heat at night or when you are not at home. You can save as much as 10% a year on your heating and cooling bills by simply turning your heating back or cooling up 10% to 15% for 8 hrs. a day.
- **Install a programmable thermostat.** By using a programmable thermostat you can heat the house only when it is needed, or have the furnace turn down at night.
- **Keep your heating and air conditioning filters clean.** Check furnace or air filters once a month during the heating/cooling season. Clean filters allow your heating or cooling system to work more efficiently and last longer.
- **Make sure registers are unblocked.** Both the air vents and returns are important in keeping your house warm in winter and cool in summer. Keep them open and unobstructed it is easier to receive air, and send out the conditioned air. Move furniture and drapes away so heated or cooled air can do its job.
- **Clean ductwork, vents and heaters.** Dirt and dust can make your system less efficient.
- **Don't build a fire when the furnace is on.** A roaring fire can actually waste energy by drawing heated air up the chimney. Keep the fireplace damper closed, unless a fire is going. Keeping the damper open is like keeping a 48-inch window wide open during the winter; it allows warm air to go right up the chimney.
- **Don't keep ventilation fans running.** These fans vent valuable heated or cooled air. Turn them off when they've done their job.
- **Have your heating and cooling system checked annually.** Keeping your system in good order not only helps lower energy costs, it extends the system's operating life.
- **Be sure your heating or cooling unit is properly sized.** A properly sized unit will perform more efficiently.
- **Use fans in conjunction with your air conditioner.** Fans will help spread the cooled air more effectively through your home without greatly increasing your power use.
- **Plant trees or shrubs to shade air-conditioning units** but not to block the airflow. A unit operating in the shade can use as much as 10% less energy than the same one operating in the sun.



# Cooking Tips

- Don't use the stove as a heating device
- Keep lid on pots and pans while cooking
- Use proper size pan on stove top burner
- Cook as many things as possible at same time
- Keep oven door closed while cooking
- Don't over cook food
- Microwave foods when possible

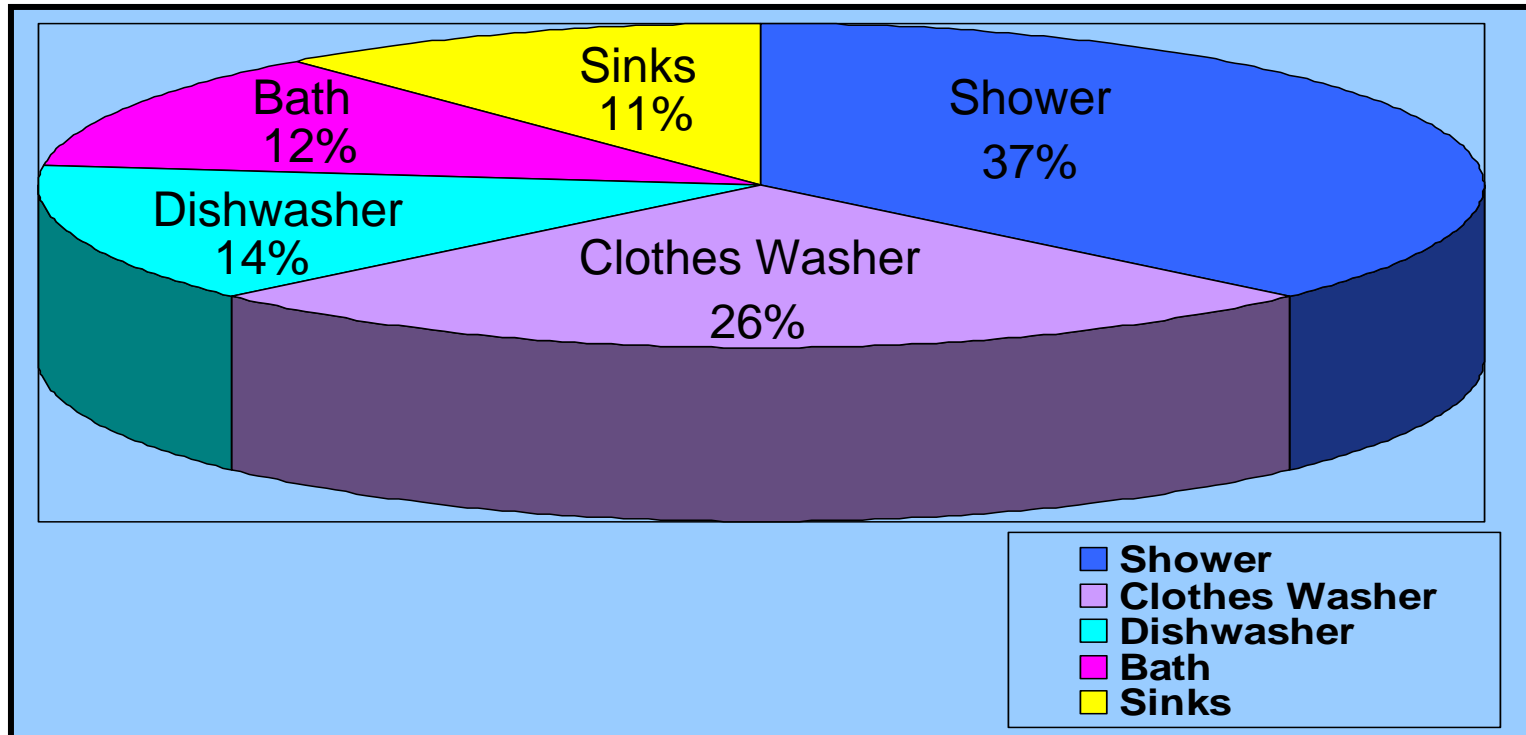


# Cooking Tips

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- **Don't use the stove as a heating device.** The stove is not an efficient source of space heat.
- **Keep lid on pots and pans while cooking.** This helps keep heat in pan for faster cooking and less energy use while cooking.
- **Use proper size pan on stove top burner.** All the food will be cooked equally and all the heat is used to heat the pan not the space around it.
- **Cook as many things as possible at the same time.** Cook foods at similar temperature at the same time to save energy.
- **Keep oven door closed while cooking.** Opening the door allows heat to escape and requires more energy to replace the heat.
- **Don't over-cook food.** Over-cooking consumes extra energy that is not needed.
- **Microwave foods when possible.** Cooking with a microwave is fast and energy efficient.

# Water Heating Tips



Lower the thermostat

Repair leaky faucets

Use cold water when possible

Insulate water heater & pipes

Reduce the amount of water you use

Install low-flow showerheads & aerating faucets

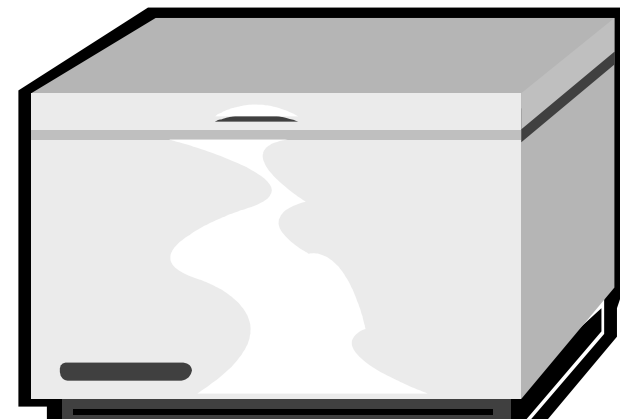
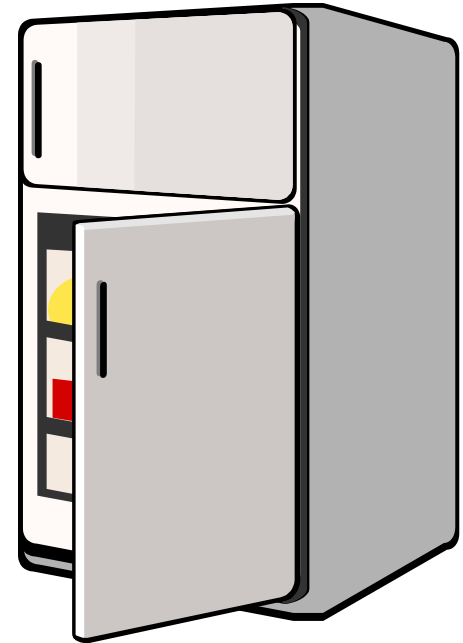
# Water Heating Tips

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- **Lower the thermostat.** A setting of 115 degrees F to 120 degrees F will provide comfortable hot water for most uses.
- **Repair leaky faucets.** Leaky faucets waste gallons of water in a short period of time.
- **Use cold water when possible.** Do laundry in cold water. Most detergents clean just as well with cold water.
- **Insulate your water heater and pipes.** Be careful not to cover the thermostat or burner compartment. Some newer models cannot be insulated so read carefully on your water heater.
- **Reduce the amount of water you use.** If you leave the water running while washing dishes, shaving or brushing teeth; its like pouring money down the drain.
- **Install aerating, low-flow faucets and showerheads.** Bathing uses the most hot water in an average household. You use 15 to 25 gallons of hot water for a bath, but less than 10 gallons for a 5-minute shower.

# Refrigerator/Freezer Tips

- Keep the coils clean
- Don't keep the door open
- Store food in containers with lids
- Make sure the door seals are airtight
- Set the temperature of the refrigerator between 37 F and 40 F, set the freezer between 0 F and 5 F
- Keep the freezer full, even if you just fill it with containers of water
- Defrost freezer when the ice is ¼" thick



# Refrigerator/Freezer Recommendations

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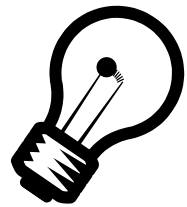
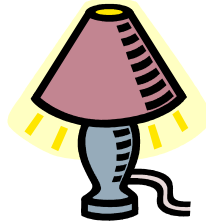
- **Keep the coils clean.** This helps the refrigerator/freezer cool easier; dust buildup makes it work harder, using more energy each time the motor turns on.
- **Keep the door closed.** Open the door only when necessary. When the door is open the temperature can change 10 to 20 degrees. The longer the door is open, the harder the refrigerator/freezer has to work to get the food as cool as it needs to be.
- **Put food in containers with lids.** Uncovered foods, especially liquids, release moisture and make the compressor work harder. Let food cool to room temperature before placing it in the refrigerator/freezer. The less cooling that has to be done in the refrigerator means less money you will spend to cool it.
- **Make sure door seals are airtight.** If the door isn't tight warm air will seep into the refrigerator/freezer, making it work more and use more energy. To test tightness, close the door on a piece of paper, half in and half out of the refrigerator. If you can pull the paper out easily, the seals may need to be replaced or the door latch adjusted.
- **Set the temperature of the refrigerator at 37 to 40 degrees F. and the freezer to 0 to 5 degrees F.** Don't keep the refrigerator or freezer too cold. You can check the temperature with a thermometer.
- **Keep the freezer full, even if you just fill it with containers of water.** A full freezer doesn't allow warm air to get in when the door is open. If there is a power outage, a full freezer will stay cool longer and a full freezer cost less to operate.
- **Keep the refrigerator and freezer defrosted.**

# Lighting Tips

- Turn lights off in any room you're not using



- Use task lighting



Change incandescent bulbs to compact fluorescent lights [CFLs]



- Take advantage of day-light



# Lighting Tips

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- **Turn lights off in any room you're not using.** This will reduce the amount of time your lights are on.
- **Use task lighting.** Instead of lighting an entire room focus the light where you need it. [For example, over the kitchen sink].
- **Keep bulbs clean to ensure maximum light is being emitted.**
- **Take advantage of day-light.** Decorate with light colors and when possible allow daylight to light the room.



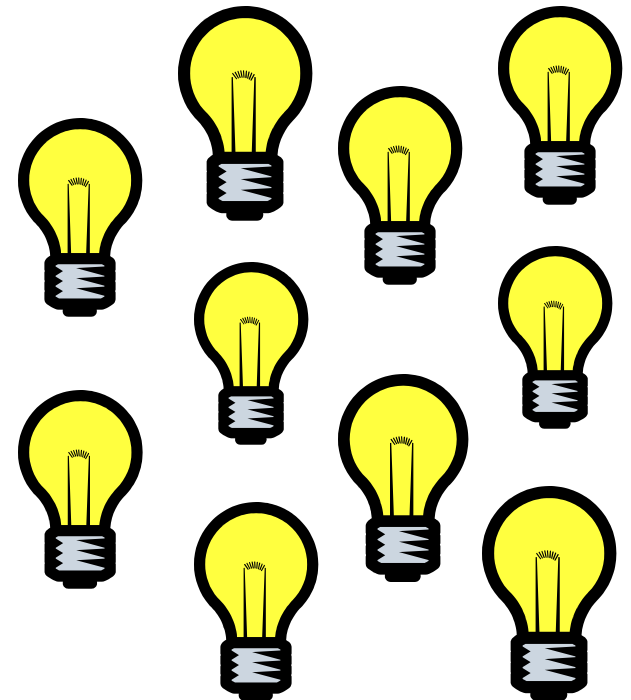
Compact fluorescent bulbs use 1/4<sup>th</sup> the energy of incandescent bulbs, last 10 times longer, and are more cost effective.

**1 Compact fluorescent bulb**



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**10 Standard Incandescent Bulbs**



# Compact Fluorescent Lights

- **Change incandescent bulbs to compact fluorescent lights [CFLs].** Although compact fluorescent lights are more expensive than incandescent bulbs, the long-term savings of CFLs can't be beat. CFLs use less energy than incandescent bulbs and give off more light. On top of that, CFLs last 10 times longer than incandescent bulbs. So with CFLs you use less energy and fewer bulbs for more light.

# Other Energy Conservation Tips

- Seal cracked or broken windows.
- Seal electrical outlets and switches on walls.
- Keep window and doors closed when heating or cooling system is on.
- Caulk and weatherstrip doors, windows and attic access.
- Caulk and seal air leaks where plumbing, ducting, or electrical wiring penetrates walls, floors and ceilings.
- Use nature's energy.



• Landscaping is a natural and beautiful way to help keep your home more comfortable and reduce your energy bills.

# Other Energy Conservation Tips

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- **Seal cracked or broken windows.** This can be done with clear tape or clear caulk. This should only be a temporary solution, if the window pane is broken it should be replaced.
- **Seal electrical outlets and switches on walls.** This can be done with gaskets made especially for sealing these areas.
- **Keep window and doors closed when heating or cooling system is on.** This is an easy way to keep warm or cool air in the house. As soon as a door or window is opened expensive warm or cool air escapes out while outdoor air rushes in and the house has to be heated or cooled once again.
- **Caulk and seal air leaks where plumbing, ducting, or electrical wiring penetrates walls, floors and ceilings.** If you can feel a cool draft coming from a window or door in the wintertime one solution to prevent that cold air from coming in the house is to weather strip around those doors or windows.
- **Use nature's energy.** In cold weather, open shades facing the sun to let in nature's warming power. In warm weather, leave shades down or drapes closed when the sun is strongest. Open windows on cooler days and nights.
- **Landscaping is a natural and beautiful way to help keep your home more comfortable and reduce your energy bills.** Carefully positioned trees deliver effective shade, act as a windbreak and can save up to 25% of a typical household's energy. Predictions are that just three trees, properly placed around the house, can save an average household between \$100 and \$250 in heating and cooling energy cost annually. Trees that lose their leaves in the fall are the most effective, they provide protection from the summer sun but permit winter sunlight to reach and warm your house. Deflect winter winds by planting trees on the north and west sides of your house; deflect summer sun with trees on the south and west sides.



**Be Energy Smart**  
**Be Comfortable**  
**Be Healthy**  
**Be Safe**

## Don't Forget

**Be Energy Smart.** Energy saved means Money saved.

**Be Comfortable.** By making your home more energy efficient, it will be warmer in the cold winter months and cooler in the hot summer months.

**Be Healthy.** Keep your family healthy by keeping the home and play areas free from lead contaminated dust and chips.

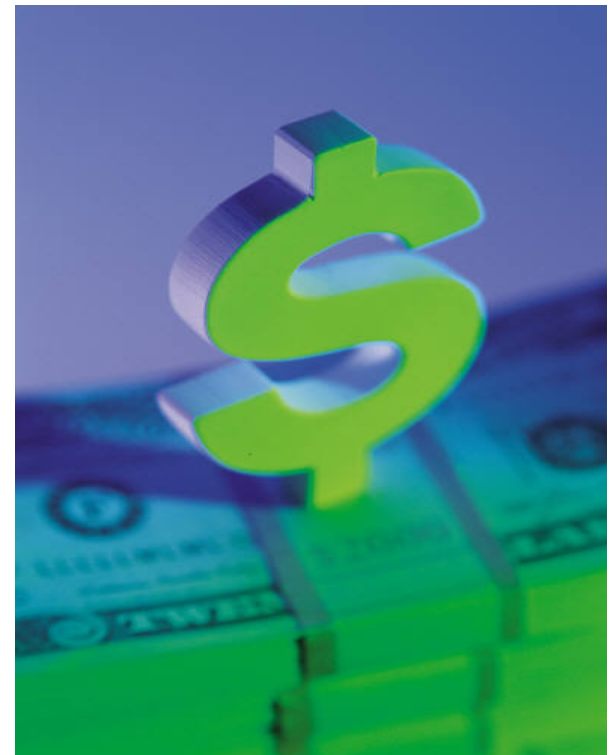
Keep indoor air quality healthy by preventing the growth of mold and mildew.

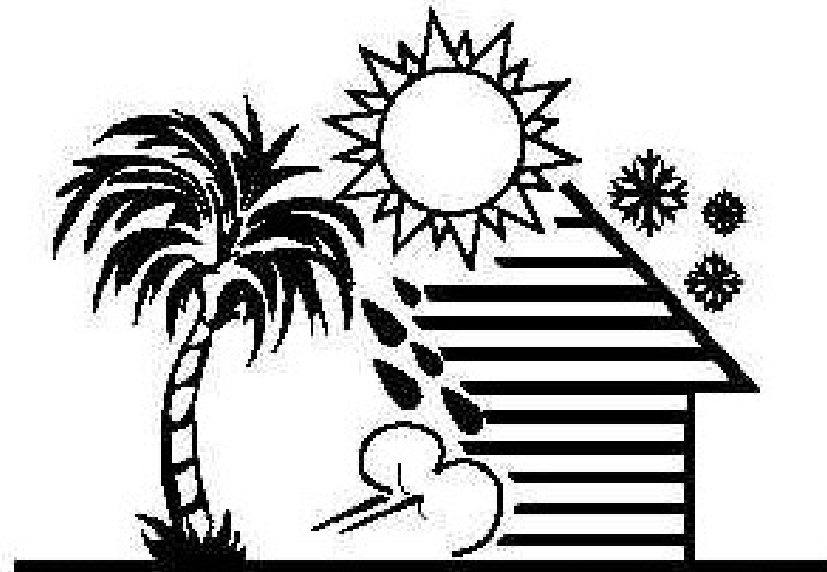
**Be Safe.** Practice good safety habits around your home. Keep smoke and carbon monoxide alarms in proper working order so they can protect you and your loved ones.

# **Be Energy Smart**

## **Save Energy and Money**

**And have a Healthy, Safe, Comfortable Home**





*Weatherization Works  
in Florida!*