Northeast Oklahoma REC's

Do It Yourself

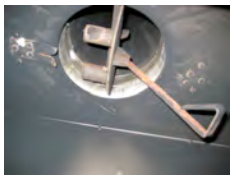
Home Energy Audit

Bronze Level

Start today and start saving!

First project (circle and initial when completed) _____

Fireplace Damper



Objective: Making sure the fireplace damper is closed when it is not in use.

Incentive: When the fireplace damper is open, it draws conditioned air out of the home to the outdoors. This forces the climate control system to kick on more often than necessary and costs additional energy dollars.

What to do:

- Make sure the fireplace is not in use.
- Using eye protection and a flashlight, look up the chimney to determine if the damper is completely closed.
- If the damper is open wide or even gapped open slightly, close it completely.

Tip: Some fireplaces do not have dampers or have ones that have rusted shut and cannot be closed. There is a product available on the internet that fills and seals the chimney when it is not in use. Type "chimney balloon" in your search engine to find a dealer.

Second project (circle and initial when completed) _____

Clothes Dryer Vent

Objective: Making sure the clothes dryer vent is closed when it is not in use.

Incentive: When the clothes dryer vent is open, it draws conditioned air out of the home to the outdoors. This forces the climate control system to kick on more often than necessary and costs additional energy dollars. An open vent also allows critters to enter the home.

What to do:

- Make sure the clothes dryer is not in use.
- Locate the clothes dryer vent on an outside wall of the home.
- Inspect the vent and make sure the vent is completely closed
- If the vent is not completely closed, check for lint or other debris and remove it. You may have to remove the hood of the vent to complete the cleaning.
- If the vent still stays open it may be damaged. Replace it to stop the air infiltration.

Tip: Some dryers are vented through roofs, into attics, into crawl spaces, or to garages.

Third project (circle and initial when completed) _____

Window air conditioner.

Objective: Making sure the window air conditioner: does not have any gaps around it and has an adequate amount of insulation.

Incentive: A window air conditioner that has gaps around it allows conditioned air to escape the home to the outdoors. If the wind is blowing, the harsh outside air can also enter the home. This forces the cooling unit to kick on more often than necessary and costs additional energy dollars. The accordion spacers that fill the void between the unit and the window jams have no R-value and allow heat gain into the home.

What to do:

- Look for gaps where the air conditioner meets the window, top and bottom. Caulk or insert insulation into the gap. You can use a putty knife to push insulation into a small gap.

- Between the top of the window you opened and the upper window, there will be a large gap. Roll up a dish towel or use a length of foam insulation and insert it into the gap to stop the air infiltration.

- Cut out a section of foam-board insulation to create a custom panel to fit over the accordion sliders on both sides of the unit to improve the R-value of this crucial area.

Tip: Tape long thin strips of tissue paper around the window air conditioner on the interior of the home on a windy to test for air infiltration.

Fourth project (circle and initial when completed) _____

Ceiling Fan Use

Objective: Checking to see if the ceiling fans are in use.

Incentive: Moving air provides an evaporative cooling effect on human skin (great for summer). Moving air also mixes the extreme heat on the ceiling with the extreme cool of the floor into one comfortable temperature (great for all seasons). The mixed air will keep you more comfortable and keep your climate control system from kicking on as much, saving you energy dollars.

What to do:

- Check to see if each ceiling fan is operating.
- You should turn each ceiling fan on, especially in rooms that are occupied by people.
- Make sure the ceiling fan near the thermostat is operating as it will assist in retaining a more accurate temperature of the room.

Tip: Most ceiling fans have a "reversing" switch. This allows the fan to run both directions. One allows the fan to blow downward (better for summer) and the other allows the fan to pull air upward resulting in a much lower chill factor (best for winter).

Fifth project (circle and initial when completed) _____

Checking Your Thermostat

Objective: Making sure the Fan is set to "Auto" instead of "On".

Incentive: If the thermostat for your climate control system is set to "On", the fan will continually run, pulling conditioned air from your home to pass through the system over and over again. The rest of the climate control system is not operating so the heat or cold generated on an earlier cycle is dissipating through the ductwork. This will force the system to kick on more often than is necessary, costing you energy dollars.

What to do:

- Locate the Fan selection on the thermostat.
- Make sure the Fan selection is set to "Auto".
- If the Fan selection is set to "On", set the switch to "Auto".

Tip: Some Fan selection switches seem to be hidden on the thermostat box. You may have to look behind a hinged door or pull on a sliding panel to find the switch.

Bronze Level

Sixth project (circle and initial when completed) _____

Compact Fluorescent Light Bulbs

Objective: Change all your light bulbs to compact fluorescent lights (CFL's).

Incentive: Cfl's use 1/4th the energy of a regular incandescent light bulb and will last 8 to 10 times longer.

What to do:

- The first two bulbs you want to change are
  1) in the fixture you leave on all night,
  2) the fixture that is the most difficult to get to.

- You could change to cfl's, one at a time, as the old incandescent ones burn out but you won't realize the energy savings until you do. Change all of them to cfl's now and save the old bulbs as backups.

Tips: Cfl's were originally $10 or more per bulb, but you can find them now in bulk packages for about $1 each bulb.

You can operate 40 cfl's with the same energy as it takes to operate 10 incandescent bulbs.

Using a 100-watt incandescent bulb for 3 hours per day will cost you $7.66 per year. A 100-watt equivalent cfl bulb will only cost $1.92 per year.

Cfl's are now available in the following formats: yellow bug light, flood light, vanity light, candelabra, dimming light, and a 3-way reading light.

Seventh project (circle and initial when completed) _____

Hot Water Tank Temperature

Objective: Turning down the temperature of the water heater to 120°.

Incentives: Reduce your water heating costs by simply lowering the thermostat setting on your water heater. For each 10°F reduction in water temperature, you can save 3%-5% in energy costs.

Water heated above 130ºF poses a safety hazard—scalding.

Reducing your water temperature to 120ºF also slows mineral buildup and corrosion in your water heater and pipes. This helps your water heater last longer and operate at its maximum efficiency.

What to do:

- Read through the water heater owner's manual on how to operate the thermostat.
- Find the thermostat dial of the water heater. For a gas water heater, the dial will be near the bottom of tank on the gas valve. Electric water heaters may have thermostats positioned behind panels. For safety, shut off the electricity to the water heater before opening the panels. Note, some electric water heaters have two thermostats, one each for the upper and lower heating elements.
- Using the owner's manual instructions, turn the temperature setting to 120°F.

Tip: Some dishwashers require a water temperature of 130ºF to 140ºF for optimum cleaning

Eighth project (circle and initial when completed) _____

"Low Flow" Shower Head

Objective: Changing your regular shower head to one that conserves hot water.

Incentive: Cut your hot water usage for showers by as much as 50% without sacrificing the "feel" of the shower by changing to a "low flow" showerhead. This means your water heater will be operating less. You won't be using as much water and less waste water will be sent to the sewage system. This triple benefit will make your home more energy efficient.

What to do:

- Remove the old showerhead according to the manufactures instructions.
- Install a new low-flow showerhead according to the instructions included with the fixture.

Tips: Before 1992, some showerheads had flow rates of 5.5 gallons per minute (gpm). Today, federal regulations mandate that new showerhead flow rates can't exceed more than 2.5 gpm at a water pressure of 80 pounds per square inch.

There are a wide variety of low-flow showerheads available, including hand-held and designer models.

A low-flow, aerating showerhead mixes air into the water. The air keeps steady pressure and results in an even, full shower spray.

A low-flow, non-aerating showerhead does not have air mixed into the water. This type maintains a warmer temperature and has a stronger, more pulsating type of spray.

Ninth project (circle and initial when completed) _____

Interior Doors Open

Objective: Making sure the interior doors are open.

Incentive: When interior doors are closed the heating/air-conditioning unit struggles to get enough return air to operate at its peak efficiency. This costs you additional energy dollars plus you won't be as comfortable as you could be.

What to do:

- Check regularly to make sure all interior doors are open.
- When you find one that is closed, open it as wide as possible.
- If it will not stay closed, consider using a doorstop.

Tip: Some interior doors are designed with vents built into them or are cut short to leave a gap at the bottom. This is an attempt to allow adequate air to return from that room back to the heating/cooling system. These work fairly well, but keeping the door open wide is still the best option.

Tenth project (circle and initial when completed) _____

Air Supply Registers

Objective: Making sure all the air-supply registers are open.

Incentive: Heating and air systems are designed to work at their top efficiency and they require an adequate amount of return air. This only happens when the air delivered to each room is allowed to cycle back through the interior of the building to a return vent. If any of the vents are closed the heating and air system is not operating at its peak effectiveness. This can cost you additional energy dollars plus you won't be as comfortable as you could be.

What to do:

- Locate the air vents in your home. Some are located on the floor, some on the ceiling and sometimes on the wall.
- Move the appropriate adjustment knob or lever on the vent so it is open wide.

Tip: Direct a beam from a good flashlight into the opening of a vent to determine if the vent is open.

Eleventh project (circle and initial when completed) _____

Window Latches

Objective: Making sure all the windows are latched when the windows are closed.

Incentive: Your windows might be closed, but if they are not latched, outside air can infiltrate into your home. If the air conditioner or heat system is operating, the pressure inside the house can force some of the conditioned air to escape through unlatched windows to the outside because the seal is not complete. This will cost you energy dollars.

What to do:

- Check each window and find the latch.
- If the window is unlatched, move the lever so the latch is engaged.

Tips: Some windows have two latches.

Most latches are located at the top of the lower window.

Some latches are actually catches and are located at the bottom of the lower window.

Casement windows have handles that crank shut and do not have latches but you should still make sure they are completely closed.

Side-sliding windows have latches half way up between the two window segments.

Make it a habit to latch windows as you close them.

Congratulations!

You have completed the Northeast Oklahoma Electric Cooperative's Bronze Level Home Energy Audit.