

Northeast Oklahoma REC's
Do It Yourself
Home Energy Audit
Gold Level

Start today and start saving!

First project (circle and initial when completed) _____

Attic
Insulation



Objective: Check for the amount of insulation in the attic.

Incentive: Attic insulation slows the transfer of conditioned air to the attic. It also slows the harsh attic air from entering the home. An adequate amount of attic insulation will greatly improve the energy efficiency of your home and protect your energy dollars.

What to do: • Climb into the attic. Using a ruler, measure the depth of insulation. Twelve inches (R-38) is the optimal amount of attic insulation for homes in northeast Oklahoma. Consider adding enough insulation to the existing amount for a total of 12 inches.

Tips: Most “home improvement” stores have the machines and materials for blowing-in insulation for “do-it-yourself” homeowners.

You can apply cellulose insulation over fiberglass insulation.

Cellulose seals much better than other types of other insulation.

Cellulose insulation has a superior “sound proofing” ability.

Cellulose is a recycled product made mostly of newspaper.

Cellulose will not burn. It has a natural insect repellent built in.

Use rafter chutes (baffles) when adding more insulation so the air flow from the soffit vents remains open.

Second Project (circle and initial when completed) _____

Air Leaks Around Exterior Doors



Objective: Check for leaks around the edges of exterior doors.

Incentive: Harsh outside air can easily infiltrate a home through gaps around an exterior door. Conditioned air inside the home can escape through the same gaps leaving your heater/air conditioner running non-stop and costing you excess energy dollars.

- What to do:
- During the day, turn off the interior lights and look very closely for light at the areas around the exterior doors. If light can make it through the gaps, so can the air.
 - Remove any worn weather stripping and replace.
 - If the leak is at the bottom of the door, replace the threshold seal.

Tips: If you cannot see light coming in around an exterior door but still suspect it is leaking, you can test it another way. Wait for a day when the wind is blowing at least moderately and tape thin strips of tissue paper around the door. Turn off all fans and the heater/air conditioner. Watch to see if the paper moves. If it does, you have probably found a source of air infiltration. (Note: You can also use the smoke from an incense stick to detect moving air.)

Sometimes a door leaks because it is just loose and not pressing against the weather stripping. Try adjusting the strike plate so the door latches more snugly.

Third project (circle and initial when completed) _____

Utility Closet Penetrations



Objective: Check utility closets for plumbing and electrical penetrations.

Incentive: Harsh outside air that has made its way into the core of your walls can easily make it into your home through penetrations in the wall. Most of these holes exist where plumbing or electrical wires pass through the wall. This air infiltration will drain your energy efficiency.

What to do:

- Using a flashlight, explore the utility closet. You may have more than one. Search for gaps around conduit as it passes through the wall. Look for wiring penetrations and breaks in the drywall that usually happen during construction. Seek out exhaust pipes or duct work exiting through the ceiling. Examine electrical outlet boxes to insure they are properly installed and sealed.

- Use the appropriate caulk to seal the gaps and holes you find. If appropriate, use spray foam insulation to fill the larger gaps and holes to stop the air infiltration.

Tips: Even though the closet door is closed, air infiltration can still make its way into your home. Closet doors are usually not air tight.

Conditioned air inside your home can also escape to the outside through the same holes as the outside air came in.

Fourth project (circle and initial when completed) _____

Suction Line Insulation



Objective: Check the insulation on the suction line.

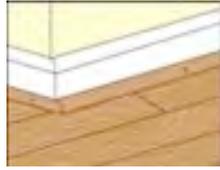
Incentive: The suction line is the large copper tubing coming from the outdoor air conditioner unit leading into the house. It should have a thick foam-type insulation surrounding it. The sun can deteriorate the foam or an animal might use it as a chew toy. The insulation protects the “cold” tube from the hot outside temperatures and prevents excess condensation. A properly installed insulation tube will keep the keep the cold in and assist in reducing the amount of unwanted moisture inside your home.

- What to do:**
- Inspect the suction line to determine the condition of the insulation. It should not have gaps, cracks or tears anywhere along the entire length.
 - You can arrange for a contractor to replace the insulation or you can do it yourself.
 - You can purchase lengths of the suction line insulation from an HVAC contractor or from an HVAC retailer. (HVAC = Heating, Ventilation, Air Conditioning)
 - Slide the insulation tube over the suction line and tape it in place.

Tip: Use a good-quality duct tape to hold down the insulation along any curves of the copper tubing to close any gaps and improve the energy efficiency even more.

Fifth project (circle and initial when completed) _____

Air Leaks Along Baseboards



Objective: Check for air leaks along your baseboards.

Incentive: Improperly-built homes or those more than 20 years old might not have a seal between the sole plates of the exterior walls and the floor of the home. Without a proper seal, air can easily make its way inside. And when the heater or air conditioner is operating, pressure will force the conditioned air outside. Both of these greatly reduce your energy efficiency and cost you major energy dollars.

- What to do:
- Turn off all the ceiling fans and make sure your heater/air-conditioner is not operating. Tape thin strips of tissue paper near the bottom of the interior walls of your home. (A windy day is better but you can turn on the bathroom/kitchen exhaust fans to create an inward draft.) Watch for movement of the strips caused by air infiltrating from under the baseboards.
 - Apply a bead of good-quality caulk at the base of the baseboard to help stop the air infiltration into and from the structure. It is better if you can remove the baseboard first and then apply the caulk in the gap between the floor and the bottom of the drywall. This will take longer but it should not be as messy.

Tips: If you have carpet, you might consider stuffing “foam rope” insulation in the gap between the trim and the sub-floor.

For deep crevices, consider using spray-can foam insulation (the “door & window” variety) utilizing the straw-nozzle.

Sixth project (circle and initial when completed) _____

Blocking the Summer Sun



Objective: Install awnings, solar screens or window film on windows exposed to the summer sun. Strategically plant trees.

Incentive: The sun has more hours during the summer to heat up your home during the time you are trying to keep it cool. There are several ways to block the summer sun, lessen the solar gain, and save energy dollars.

What to do:

- Apply window film to the inside of your windows to reduce summer heating. Films work best on windows where the sun strikes directly (east or west-facing windows where low-angle morning and afternoon sun come directly into your home or south-facing windows if your home doesn't have roof overhangs or trees to provide mid-day shade).

- Planting deciduous trees on the south, east, and west side of your home and use of awnings on the south are a great way to deter the sun's heat. (An alternative is the use of solar screens.) In the autumn, trees will lose their leaves and the sun will shine through for a nice solar-heat gain. The sun's winter path is closer to the horizon and will shine through under the awning.

Tips: Planting multiple or dense rows of conifer trees on the north and northwest side of your home will create a wind break from the winter wind.

Check window film specifications to find films with a high "Visible Transmittance", but a low "Solar Heat Gain Coefficient" so your rooms won't be too dark.

Gold Level

Seventh project (circle and initial when completed) _____

Kitchen Range Vent



Objective: Check the kitchen range vent for air leaks.

Incentive: When a kitchen range vent is not properly sealed, it can draft inside air to the outside. This will negatively affect your energy efficiency and cost additional energy dollars.

- What to do:
- Check to see if there is a flap on the inside vent. Look to see if it is closed (when the vent's fan is off). If it is open, try to adjust the flap or have a professional make the correction. If you cannot see a flap, there could be one on the other end.
 - If the wind is blowing outside test the vent with smoke of an incense stick or by taping a thin strip of tissue paper near the vent. (with all ceiling fans turned off). If the paper moves or the smoke travels into the vent there is an air leak. Consider having a professional install a flap or adjust the existing one.

Tips: Some of the older mobile homes have kitchen vents through the exterior wall. Make sure the exterior lid seals properly.

The exterior side of a range vent can be found on the roof, in the attic, or on the outside wall.

The interior side of a range vent could be found above the range, on the interior wall near the range, or on the range top.

With a leaky vent, you can feel air from the inside exit the exterior vent when the air conditioner or heater is operating.

Congratulations!

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