

The Clipboard Home Energy Checklist

Created by the Heartland Renewable Energy Society
www.HeartlandRenewable.org info@HeartlandRenewable.org

Congratulations!! You are about to take an important step to make your house more energy efficient. Should you have questions as you go through, refer to our PowerPoints and Videos at www.HeartlandRenewable.org/Clipboard. Remember, even though it is very hard to do, you may make your home so tight that an old leaky furnace can become dangerous. If you have an older furnace, we advise having a professional check your furnace. Consider having a professional energy audit to recommend and/or perform needed energy improvements. Check our website or email us if you have questions.

<input checked="" type="checkbox"/>	Things to Look For.	Your Notes and Comments
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Attics & Crawl Spaces

<input type="checkbox"/>	Measure attic insulation level. Is it uniform? Are areas of too much or too little insulation? If you only have 6-8 inches, add enough to get to 14-16 inches. Use cellulose loose fill.	
<input type="checkbox"/>	Before You Insulate... Consider removing old insulation first. You will likely discover many locations that need to be sealed where ducts, returns, flues, and electrical wires provide opportunities for air leaks.	
<input type="checkbox"/>	Short walls against conditioned spaces. Is there insulation? How is it installed?	
<input type="checkbox"/>	Attic ventilation. Does insulation cover up ventilation soffit air inlets or intake locations? Are there vent outlets at the top or gables? Don't cover up roof vents in winter. Insulation keeps your house warm. Covering roof vents could cause damaging condensation and rot.	
<input type="checkbox"/>	Ducts in Unconditioned Spaces. Are ducts well insulated in crawl spaces and attics? Are all duct connections in good shape? Do they need sealing with mastic or silver duct tape?	
<input type="checkbox"/>	Recessed Can Lights. These are notorious for air leakage. Note whether they are 'Air Loc' models and/or rated for insulation contact. Rated fixtures should have a sticker on the inside that says "IC". Use CFLs for less heat.	
<input type="checkbox"/>	Attic Access Doors and Hatches. Be sure to insulate and weather strip your attic access doors and hatches.	

Wall Insulation

<input type="checkbox"/>	Walls. Do you know how your walls are insulated? Is there a location on your exterior walls where you can check to see if and how your exterior walls are insulated? Do your walls have a vapor barrier? To insulate walls is hard. Consider having it done by a pro. However, it can be done. There are several products and methods available. Blowing cellulose insulation is one good method.	
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Basements & Crawl Spaces

<input type="checkbox"/>	Rim Joists. Are the rim joists caulked and insulated? Floor joists butt into rim joist at foundation walls.	
<input type="checkbox"/>	Basement Walls. Are basement walls insulated? Are basement areas finished?	

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<input type="checkbox"/>	Light Leaks. If you can see light through the rim joist, basement-to-wall connections, or utility penetrations, seal them with caulk or foam.	
<input type="checkbox"/>	Foundation Cracks. Cracks in your foundation can let in air infiltration and water leaks. Seal and plug them.	
<input type="checkbox"/>	Cellar storm doors. Are cellar storm doors tight sealing or insulated?	
<input type="checkbox"/>	Floor coverings. Are the floors covered with carpet?	
<input type="checkbox"/>	Crawl Spaces. Be sure the floor above the crawl space is insulated, and that there are no air leaks. When you insulate, be sure not to isolate water pipes and ducts. Make sure they are insulated and on the warm side of added insulation.	

Air Infiltration Use the Draft Detector Tool at all below potential air infiltration points. (see page 4)

<input type="checkbox"/>	Doors. Check the threshold and jamb weather stripping to see if there is light and air coming through. It may be time to replace the bottom threshold and side/top jamb weather stripping. Adding a storm door can reduce heat losses.	
<input type="checkbox"/>	Windows. Do the windows seal tight? Are your windows single pane? Double pane? See Windows below.	
<input type="checkbox"/>	Electrical Outlets. On a windy day or night, can you feel air coming through your outlets? You can install specially designed foam gaskets to stop air leaks.	
<input type="checkbox"/>	Utility Penetrations. Are telephone, plumbing, electrical, etc., penetrations properly caulked?	
<input type="checkbox"/>	Window Mounted Air Conditioners. Make sure these units are sealed tight and will drip to the outside.	
<input type="checkbox"/>	Baseboards. Check along baseboards where walls meet the floors for air movement for drafts. Caulk where needed.	
<input type="checkbox"/>	Fireplaces. Does the fireplace have a damper or a glass door? Are they closed and do they close tightly to prevent heat from escaping. Consider a chimney ballon.	
<input type="checkbox"/>	Attic Fans and Attic Hatches. Make sure attic fans are sealed well during winter months. Consider creating a rigid foam cork for winter.	

HVAC and Fireplaces

<input type="checkbox"/>	Floor and wall registers. Are these covered with carpet or furniture?	
<input type="checkbox"/>	Thermostat. Do you have a programmable set-back thermostat that turns the temp down 5-10 degrees at night? If not, turn it down manually at night or when not home. How low is your daytime winter thermostat set? As low as 64 or 66 degrees. Where is it set in summer? As high as 80 degrees?	
<input type="checkbox"/>	Ducts in Unconditioned Spaces. Are ducts well insulated in crawl spaces and attics? Are all duct connections in good shape? Do they need sealing with mastic or silver duct tape?	
<input type="checkbox"/>	Filters and Service. Be sure to change filters at the beginning of the heating season and the cooling season. During high usage, every 1 to 2 months. When was the last time your systems were serviced?	
<input type="checkbox"/>	Ready for a New System? If you have an old system, it may be time to make an energy investment in a new system. Aim for a 95% efficiency if using gas, or an SEER of 15 or 16 for your AC.	

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<input type="checkbox"/>	Fireplaces. Does the fireplace have a damper or a glass door? Are they closed and do they close tightly to prevent heat from escaping. Consider a chimney ballon.	
<input type="checkbox"/>	Roof Check. Check your roof snow and compare to other houses. If your snow melts faster than your neighbors or has spots where it melts fast, you are losing heat through your roof. Time to investigate.	

Windows

<input type="checkbox"/>	Window Treatments. Are there heavy drapes or insulating shades?	
<input type="checkbox"/>	Winter protection. Are storm windows installed and tightly sealed. If none, use a 3M plastic film or similar product to cover windows in winter to add another layer for warmth.	
<input type="checkbox"/>	Winter Sun. Open shades on sunny days for south windows to let the sun warm interior spaces.	
<input type="checkbox"/>	Summer Sun. Try to block or reflect the summer sun on windows, especially the west and east windows. Blocking the sun from the outside is much more effective. Plant trees on west and east.	
<input type="checkbox"/>	New Windows. New energy efficient windows can save energy, but they are almost never where your first energy dollars should be spent.	

Water Systems

<input type="checkbox"/>	Check crawl spaces. Are there exposed water pipes in crawl spaces? These cause heat loss and could freeze. Insulate hot water pipes.	
<input type="checkbox"/>	Hot Water Systems. Set hot water tank so it is hot, but no scalding... less tank losses. Set to 120 degrees or lower. Is there a pipe heat loop trap at the top of the tank? Are accessible hot water pipes insulated?	
<input type="checkbox"/>	Plumbing. Are faucets dripping? Do showers have a low flow shower head? Do you take endlessly long hot showers? can save water.	

Lifestyle and Miscellaneous

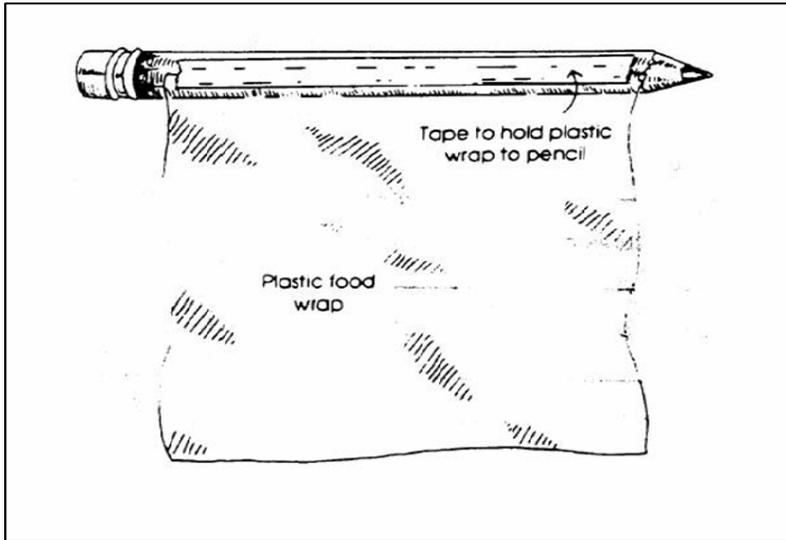
<input type="checkbox"/>	Dress for Success. Are you wearing 3 layers in the winter in your home? (and a bra don't count).	
<input type="checkbox"/>	Moving Air. In summer, ceiling fans and table fans make you feel much cooler. In winter, moving air will make you feel colder.	
<input type="checkbox"/>	Electronics. Plug all electronics and appliances into power strips that you turn off when not in use. This will stop "phantom" losses for devices that draw power even when turned off (up to 11% of your bill)	

Landscaping & Checking the Exterior

<input type="checkbox"/>	Trees. Plant trees for summer shade on the west and east side of the house to reduce the summer sun... deciduous Plant evergreen trees on the north for wind breaks.	
<input type="checkbox"/>	Landscaping. Use natural and native plants when you can to reduce water use.	

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Draft Detector Tool



Air infiltration is ENEMY NUMBER ONE

in your fight to stop heat losses. The Draft Detector Tool is an effective and simple tool to enable you to see air movement at critical areas. Here's how to make your own.

- 1) Tape plastic cellophane food wrap to pencil.
- 2) Hold near suspected source of air infiltration. See the Infiltration section.

Helpful Resources

There has been lots of work done to provide information to homeowners to help them improve the energy efficiency of their homes. Here are a few that we suggest.

- Our website, www.HeartlandRenewable.org/Clipboard/, has our PowerPoint presentation and will have videos to help you understand and implement your energy improvements. We will be adding more videos from time to time that will explain going through the Clipboard Home Energy Review.
- Our website also has information about HRES members who can provide energy audit and energy retrofit services. Go to www.heartlandrenewable.org/BusinessMembers.html
- Here are other great websites with helpful information
<http://ase.org/resources/home-energy-audit>
<http://www.doityourself.com/stry/basicenergyaudit>
http://www.seattle.gov/dpd/static/DIYweb_LatestReleased_DPDP016083.pdf
http://www.energysavers.gov/your_home/energy_audits/index.cfm/mytopic=11170
<http://www.fypower.org/res/energyaudit/diy.html>
<http://www.fypower.org/res/energyaudit/index.html>
<http://www.myenergysolution.com/home-energy-basics/diy-audit.html>
<http://www.consumerenergycenter.org/home/>
<http://www.consumerenergycenter.org/home/tightenup/>
<http://www.consumerenergycenter.org/home/tightenup/audit.html>
<http://praservices.com/homeenergyguide.pdf>