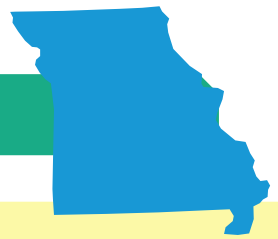


# Homeowners

## In Missouri Climate Zone 5



If you are interested in buying a home or want to learn about the energy code and how to make your home more energy efficient, this checklist provides a quick way to assess energy performance and identify opportunities to improve energy efficiency.

You can use the checklist below to verify a few of the energy code requirements that are easy to identify. While this checklist doesn't include every requirement, it will help you assess a new home and make an informed decision about the quality of construction and the likelihood that the home will use energy efficiently.

### Energy Certificate

- Energy Certificate located on circuit breaker box is completed and signed.

See reverse side for an example and more details.

### Air Sealing

- All holes between floors and through walls have been sealed with caulk or foam, examples include:
  - where phone and cable wires enter the house
  - where plumbing goes through walls, floors, and ceiling

### Thermostat

- If a forced air system is being installed, the home has a programmable thermostat.

### Ducts

In Attic:

- Ceiling and walls are insulated
- or
- Ducts are sealed and insulated to a value of R-8.

Whole House:

- All ducts are sealed with mastic.

### Lighting

- At least half of the home's light fixtures have high efficiency lights.

### Insulation

- Crawl space walls or the crawl space ceiling are properly insulated.
- Access hatch or door is weatherstripped and insulated.

### Windows

- Windows have a U-factor of 0.35 or less.
- Skylights have a U-factor of 0.60 or less.

Existing Homes:

- Evaluate windows for age, quality and air tightness.

### Fireplace

- The fireplace doors are sealed with gaskets.

### Tests

- A blower door test resulted in a score of seven air changes per hour (ACH) or less, if applicable.
- The builder tested ducts for air leakage.

### Alternative Compliance Path

- If these requirements are not met, ask your contractor for documentation showing the home meets minimum standards for energy consumption.



MISSOURI  
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NATURAL RESOURCES

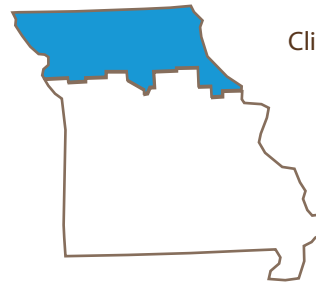
June 2011. Missouri Homeowner Checklist.



For more information and to learn how to verify whether your home meets national standards, visit <http://www.dnr.mo.gov/energy>

This energy certificate from the 2009 International Energy Conservation Code (IECC) illustrates the energy efficiency standards which are required in many new homes in Missouri. This sample form has been completed with the **minimum** standards for each building element in the home, meaning that the certificate in your home should meet or exceed these standards. Look for this certificate in or near the home's circuit breaker box or electric panel box. Make sure that it has been signed by the builder and identifies the other contractors.

If you have any questions about what is reported on the certificate, ask your builder or your local building permits office.



Climate Zone 5 Highlighted in Blue

### U-factors

These are the requirements for the insulation value of a home's windows, doors, and skylights. U-values on the home's energy certificate should be **less than or equal to** those shown in the certificate below.

### R-values

These are the minimum requirements allowed for the home's insulation in order to meet the code. R-values on the form should be **greater than or equal to** those shown here.

### Heating and Cooling (HVAC)

The way heating and cooling systems are rated and the minimum levels for efficiency depend on the type installed, and fuel used. These abbreviations: SEER, AFUE, and HSPF indicate efficiency. The higher the rating, the more efficient the heating or cooling system is. Use the chart below to determine the minimum rating allowed for each system.

type	min rating
air conditioner	SEER-13
electric furnace	AFUE: 78%
electric boiler	AFUE: 80%
gas boiler	AFUE: 75%
heat pump	HSPF: 7.7

2009 IECC Energy Certificate		
Compliance Method	Date	
PERSCRIPTIVE	5/1/2011	
Insulation		r-value
Ceiling/Roof	38	
Walls	13+5	
Floors	19	
Ducts	8	
Basement Walls	10/13	
Window and Door Ratings		u-factor
Windows	0.35	
Doors	0.40	
HVAC Equipment	Type	Rating
GAS BOILER		75% AFUE
Water Heating	Type	EF value
Water Heater	50 GAL, GAS	0.60
General Contractor: K + M CONTRACTORS		
Insulation Contractor: RKM INSULATION		
Form Completed By: <i>Andy</i>		

### Water Heater

The minimum efficiency factor (EF) for water heaters depends on the size and fuel type used. The higher the number, the more efficient the water heater is.

Minimum EFs for Water Heaters

size	gas	electric
30 gal	0.63	0.95
40 gal	0.62	0.95
50 gal	0.60	0.95
65 gal	0.75	1.98
75 gal	0.74	1.97

\* "10/13" means R-10 continuous insulated sheathing on the interior or exterior of the home (sealed at joints) or R-13 cavity insulation at the interior of the basement wall.