

Quality Home Construction Checklist: Model Energy Code



The Missouri Residential Energy Efficiency Program is proud to help today's home builders, contractors and code officials stay up-to-date on current building codes and energy efficiency best practices. While this checklist doesn't include every requirement, you can use this as a guide while assessing new homes, ensuring construction quality and making decisions about energy efficiency.

Energy Certificate

- ☐ Energy Certificate located on circuit breaker box is completed and signed
- See 2nd page for an example and more details

Air Sealing

- ☐ All holes between floors and through walls have been sealed with caulk or foam, examples include:
 - Entrance point for phone and cable wires
 - Entrance point for plumbing in walls, floors and ceiling

Ducts

In Attic (select one):

- ☐ Ceiling and walls are insulated
- ☐ Ducts are sealed and insulated to a value of R-8 in attics and R-6 elsewhere

Whole House:

- ☐ All ducts are sealed with mastic - duct tape is not acceptable

Basement/Crawl Space

Select one:

- ☐ The basement/crawl space walls are insulated, an HVAC supply is provided and there are no vents in the crawlspace (preferred)
- ☐ Floor over basement/crawl space is insulated

Windows & Doors

- ☐ Windows and doors have a U-factor of 0.35 or less
- ☐ Skylights have a U-factor of 0.60 or less

Heating & Cooling

- ☐ A licensed installer was used and the system was inspected

Alternative Compliance Path

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

Energy Certificate: What to Look For?

An energy certificate illustrates the minimum energy efficiency standards required by a municipality in every new home. Below is a description of the home components identified on this certificate. As a homeowner, you want to ensure the measures listed on your home's certificate meet or exceed these minimum code requirements.

R-values

These are the minimum requirements 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.

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.

Heating and Cooling (HVAC)

The way heating and cooling systems are rated and the minimum levels for efficiency depend

Type	Min rating
Air Conditioner	13 SEER
Gas Furnace	80 AFUE

on the type Heat Pump 8.2 HSPF 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 above to determine the minimum rating allowed for each system.

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.

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

Minimum EFs for Water Heaters

Model Energy Code Energy Certificate

Compliance Method		Date
Prescriptive		
Insulation		R-value
Ceiling/Roof		38
Walls		13
Floors		19
Ducts		8
Basement Walls		10/13*
Window and Door Ratings		U-factor
Windows		0.35
Doors		0.35
HVAC Equipment	Type	Rating
Furnace	Gas	80% AFUE
Water Heating	Type	EF value
Water Heater	50 Gal., Gas	0.60
General Contractor:		
Insulation Contractor:		
Form Completed By:		

*"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.