



# Inspectors in the United States

Use this checklist to assess homes and offer advice on expected energy use for clients interested in buying homes that meet national minimum standards for energy efficiency. Meeting or exceeding the new energy code requirements is an indication of quality construction.

This guide does not cover all aspects of the 2009 IECC. It addresses the requirements that are easiest to identify after construction is complete. Older homes will not meet these requirements, but the checklist can still be used to pinpoint opportunities for energy efficiency improvements.

## 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

## Fireplace

- The fireplace doors are sealed with gaskets

## Insulation

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

## Windows

- Windows and skylights meet the minimum requirements for U-factors and SHGCs

Visit [www.efficientwindows.org/code\\_overview.cfm](http://www.efficientwindows.org/code_overview.cfm) for minimums in your climate zone

Existing Homes:

- Evaluate windows for age, quality and air tightness

## 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 the contractor for documentation showing the home meets minimum standards for energy consumption.

This checklist developed by:



**ConsumersUnion.org**  
Nonprofit Publisher of Consumer Reports

This energy certificate from the 2009 International Energy Conservation Code (IECC) illustrates the energy efficiency standards which are required in many new homes in the United States. 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. **These values will vary based on your climate zone.**<sup>1</sup> 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 the builder or your local building permits office.

<sup>1</sup>Determine your climate zone at: [www.energycode.pnl.gov/EnergyCodeReqs/](http://www.energycode.pnl.gov/EnergyCodeReqs/)

### 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

### 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

### 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.

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>[Signature]</i>

**NOTE:**

"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.