

HOME ENERGY CODE CHECKLIST:

NEW HOMES IN ILLINOIS



If you are interested in purchasing a quality home or townhouse—or want to learn more about how to make your existing home more energy-efficient—this guide provides a quick way to assess home energy performance.

The checklist that follows is designed to help you spot check for compliance with the Illinois Energy Conservation Code. While it does not include every requirement, this checklist will help you assess a home and make an informed decision about the quality of construction and efficiency of a home.

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 ceilings

THERMOSTAT

- If a forced air furnace is present or being installed, the home has a programmable thermostat.

DUCTS

IN ATTIC:

- Ducts sealed and insulated to R-8

IN EXTERIOR WALLS OR OUTSIDE THE HOME'S INSULATION LAYER:

- Ducts sealed and insulated to R-6

ELSEWHERE INSIDE OF HOME:

- Ducts sealed with UL181 listed, foil-based tapes or mastic (similar to caulk)

LIGHTING

- At least three out of every four (75%) of the home's light fixtures have high-efficiency bulbs, such as, compact fluorescent lamps (CFLs), linear fluorescent lamps one-inch or less in diameter, or LED lamps.

FIREPLACE

- A tight-fitting damper and for "site-built," wood-burning fireplaces, doors are sealed with gaskets

INSULATION

- Crawl space walls or the crawl space ceiling is properly insulated
- Attic door or access hatch is weatherstripped and properly sealed

WINDOWS

- Windows and skylights meet the minimum requirements for U-factors and SHGCs
Visit www.efficientwindows.org/code_overview.cfm for minimums in your climate zone
- EXISTING HOMES:** Evaluate windows for age, quality, and air tightness

HOME DIAGNOSTIC TESTS

- BLOWER DOOR:** Results in a leakage rate no greater than five air-changes per hour (5ACH₅₀) when tested at a pressure of 50 Pascal
- DUCT LEAKAGE:** Results in a leakage rate no greater than four cubic feet per minute (4CFM₂₅) for every 100 square feet of conditioned floor area when tested at a pressure of 25 Pascal

ALTERNATIVE COMPLIANCE PATH

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

For the latest information on codes in your state, check out energycodesocean.org and find out how to take action.



energycodesocean.org/yourhome



POLICY & ACTION FROM CONSUMER REPORTS

agreenerfuture.org

SAMPLE ENERGY CERTIFICATE FOR ILLINOIS HOMES

This energy certificate from the Illinois Energy Conservation Code illustrates the energy efficiency standards, which are required in new homes and townhouses constructed in Illinois. 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*.

Look for this certificate in or near the home's circuit breaker box or electric panel box and make sure that it has been signed by the builder and identifies the other contractors. If you have any questions or concerns about details on the certificate, talk to your builder or your local building code official.

*Determine your climate zone at: energycode.pnl.gov/EnergyCodeReqs/

R-VALUES

R-value refers to the thickness and effectiveness of the insulation in your home. In order to meet code, the R-values installed in your home on the form should be greater than or equal to those shown on the certificate located in or near your home's circuit breaker box or electric panel box.

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 source used. These abbreviations: SEER, AFUE, and HSPF indicate efficiency. The higher the rating, the more efficient the heating or cooling system is.

TYPE	MIN.RATING
air conditioner	SEER-13
gas furnace	AFUE: 78%
gas boiler	AFUE: 80%
air-source heat pump	HSPF: 7.7

Use the chart at left to determine the minimum rating allowed for each system.

WATER HEATER

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

The minimum Energy Factor (EF) for water heaters depends on the size and fuel type used. The higher number, the more

efficient the water heater is at heating water.

U-FACTORS

These are the requirements for the insulation value of the windows, doors, and skylights in your home. The U-factors of these items in your home should be less than or equal to those shown on the certificate located in or near your home's circuit breaker box or electric panel box.

2012 IECC Energy Efficiency Certificate

Insulation Rating		R-Value
Ceiling / Roof		49.00
Wall		18.30
Floor / Foundation		10.00
Ductwork (unconditioned spaces):		—

Glass & Door Rating		
	U-Factor	SHGC
Window	0.31	NA
Door	0.31	NA

Heating & Cooling Equipment		Efficiency
Heating System:	_____	_____
Cooling System:	_____	_____
Water Heater:	_____	_____

Building Air Leakage and Duct Test Results

Building Air Leakage Test Results

Name of Air Leakage Tester: _____

Duct Tightness Test Results

Name of Duct Tester: _____

Name: _____

Comments: _____ Date: _____

2012 IECC Certificate Example

NOTE: Illinois has two Climate Zones. The example certificate shown above cannot be applied to both Climate Zones.