

HOME ENERGY CODE CHECKLIST:

NEW HOMES IN PENNSYLVANIA

KNOW
YOUR
ENERGY
RIGHTS

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

This checklist helps you spot check for compliance with the 2009 Uniform Construction Code (UCC). 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 ceiling

THERMOSTAT

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

DUCTS

WHOLE HOUSE:

- All ducts are sealed with heavy duty foil-backed tape or mastic

Duct Location	Building Insulation Location	Required Duct R-Value
Attic	Floor	R-8 supply ducts, R-6 returns
	Roof/Walls	None
Basement	Ceiling	R-6
	Walls	None
Crawl Space	Ceiling	R-6
	Walls	None

LIGHTING

- At least half of the home's light fixtures have high-efficiency bulbs, such as, compact fluorescents (CFLs)

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

WOOD-BURNING FIREPLACE

- The fireplace doors are sealed with gaskets

INSULATION

- In vented crawl space: the ceiling is properly insulated
- In unvented crawl space: the walls are properly insulated
- Attic door or access hatch is weatherstripped and properly insulated

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

TESTS

- A blower door test resulted in a score of seven air changes per hour (ACH50) 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. Ask your builder to verify if your home meets the energy code.



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SAMPLE ENERGY CERTIFICATE FOR PENNSYLVANIA HOMES

This energy certificate from the 2009 Uniform Construction Code (UCC) illustrates the energy efficiency standards, which are required in new homes in most U.S. 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.* 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 permits office.

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

R-VALUES

R-value refers to the thickness and effectiveness of insulation. In order to meet code, R-values on the form should be greater than or equal to those shown in the certificate on your electric panel. R-values on the certificate should be greater than or equal to those indicated for your climate zone. Visit: <http://www.reca-codes.org/codes2009/PA%202009%20IECC.pdf>

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

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

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

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	
Ceiling/Roof	r-value
Walls	38
Floors	13+5
Ducts	19
Basement Walls	8
	10/13
Window and Door Ratings	
Windows	u-factor
Doors	0.35
	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>	

INSULATION 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.