

THE VILLAGE OF LOMBARD

2009 INTERNATIONAL ENERGY CODE HIGHLIGHTS

Community Development Department

The Building Division

12/10/2009

This document is designed to be an overview of the changes to new residential construction/remodeling as a result of the State of Illinois adoption of the 2009 International Energy Code. The Energy Code has been in effect for new commercial construction/remodeling since 2004. This is the first time that residential structures will be mandated by the State of Illinois to follow the Energy Code.

The residential chapter of the International Energy Code is Chapter 4 and can be found on pages 27 through page 36. To follow the applicable charts in the code book, please use climate zone 5 for Lombard, IL. The new requirements of the Energy Code will be broken down into General, Building, HVAC, and Electrical changes.

*The following are **General** changes to new residential construction/remodeling due to the new State of Illinois adopted Energy Code:

- A permanent certificate shall be posted on the electric panel and shall include R-values used in all areas of the structure, U-Factors for all fenestration (glass), and types and efficiency of heating, cooling, and hot water equipment. This is a new requirement.
- A "Compliance report" shall be submitted including all proposed designs and checklists needed to inspect the structure. RES-CHECK will be required as part of the permit submittal and can be used for the compliance report. This is a new requirement.

*The following are **Building** changes to new residential construction/remodeling due to the new State of Illinois adopted Energy Code:

- Exterior windows that had no minimum U-Factor will need to have a minimum U-Factor of .35.
- Skylights that had no minimum U-Factor will now have a minimum U-Factor of .60.
- Ceiling Insulation R-value will be increased from R-30 to R-38.
- Wood framed exterior wall insulation R-value will be increased from R-13 to R-20.
- Floor insulation R-value will be increased from R-19 to R-30.
- Basement wall insulation R-value will increase from 0 to R-13.
- Basement slab insulation will increase from 0 to R-10.
- Crawl space wall insulation R-value will increase from 0 to R-13.
- Any new windows, including replacement windows will need to meet the new energy code.
- Air leakage testing or inspection is now required for the building envelope where no requirement existed prior.
- Wood burning fireplaces will now need to have gasketed doors and have outside combustion air where gasketed doors were not required previously.
- Recessed lighting will now be required to be air tight fixtures that are gasketed to the ceiling or wall covering. This is also a new requirement.

***This is a condensed version of the code and does not include all text and options.**

*The following are **HVAC** changes to new residential construction/remodeling due to the new State of Illinois adopted Energy Code:

- A programmable thermostat will be required for all new furnace installations. This is a new requirement.
- Duct insulation required for HVAC ducts located in unconditioned spaces shall increase from R-6 to R-8.
- All HVAC ducts will be required to have all seams sealed. This is a new requirement.
- An air leakage test will be required to be performed on the sealed HVAC ducts. This is a new requirement.
- A duct leakage test will need to be performed by the contractor during the rough inspection phase of construction. This is a new requirement.
- Hot water heating systems will be required to have all water circulation piping insulated with R-2 where no insulation was required in the past.
- All heating and cooling systems will be required to be sized per the International Mechanical Code. There was no such requirement in the past.
- All heated pools will be required to have a vapor retardant cover and pools heated to over 90 degrees will be required to have an R-12 insulated cover.

*The following are **Electrical** changes to new residential construction/remodeling due to the new State of Illinois adopted Energy Code:

- 50% of the lamps installed are required to be high –efficiency lamps.

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It should be noted that the law that the State of Illinois has adopted requires the enforcement of this code. No municipality will be allowed to make it more or less strict. The Lombard Building Division has decided to perform inspections of the building envelope in place of the blower door test that a third party would have had to perform. The HVAC duct leakage test will need to be performed by the contractor.