

Updating energy codes

States vary in their adoptions of the latest energy code

by Mark S. Graham

The Department of Energy (DOE) has issued a notice of final determination requiring U.S. states to file certification statements with DOE by May 17 indicating their residential energy codes meet or exceed the requirements of the *International Energy Conservation Code, 2012 Edition* (IECC 2012). Previous similar determinations have prompted states to update their energy codes. Because IECC 2012 is notably more stringent than previous energy codes, states' energy code adoptions should concern you.

To date, Illinois, Iowa, Maryland, Montana, North Carolina, Rhode Island and Washington have met DOE's May 17 certification deadline and adopted IECC 2012. California, Florida, Massachusetts and New York will adopt IECC 2012 on or before Jan. 1, 2015.

Georgia, Indiana, Louisiana, Maine, Nebraska, New Hampshire, New Jersey, North Dakota, Ohio, Oklahoma, Pennsylvania, West Virginia and Wisconsin have indicated they do not intend to adopt IECC 2012. The remaining states have indicated they have no specific timetable for IECC 2012 adoption.

NRCA encourages roof system designers and specifiers to be aware of the status of energy code adoption and incorporate

the applicable energy code's minimum requirements into their designs and specifications.

Detailed information about states' energy code adoptions is provided on NRCA's website, www.nrca.net/Technical/EnergyCodes. In addition, information regarding IECC 2012, including descriptions of its roof reflectivity and building envelope air barrier requirements, is provided in *Guidelines for Complying with Energy Code Requirements for Roof Assemblies: International Energy Conservation Code, 2009 and 2012 Editions*, which is available by calling (866) ASK-NRCA (275-6722) or visiting shop.nrca.net.

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IECC 2012 is notably more stringent than previous energy codes

IECC 2012

IECC 2012 provides for notably more energy-efficient buildings than the code's previous editions.

As it applies to roof assemblies, IECC 2012 provides for increased minimum R-values; mandatory roof surface reflectivity requirements

in climate zones 1 through 3; and requirements for continuous air barriers as components of building envelopes, including roof assemblies.

IECC 2012's minimum R-value requirements based on its prescriptive method are provided in the figure.

States' adoptions

NRCA has surveyed states regarding the status of their energy code adoptions.

Minimum required R-value ¹				
Climate zone	Residential buildings ²	Commercial buildings ³		
	Ceiling R-value	Insulation entirely above deck	Metal buildings	Attics and other
1	R-30	R-20	R-19 + R-11	R-38
2	R-38			
3				
4	R-49	R-25	R-25 + R-11	R-49
5				
6		R-30	R-30 + R-11	R-49
7		R-35		
8				

¹ Based on IECC 2012 building envelope prescriptive method

² Applicable to detached one- and two-family dwellings (townhouses), as well as Group R-2, R-3 and R-4 buildings as defined in the *International Residential Code, 2012 Edition*, three stories or less in height above grade

³ Applicable to buildings that do not meet the residential building definition



ON the WEB

To see IECC 2012's climate zone map and the *Notice of Final Determination from the Federal Register* dated May 17, 2012, log on to www.professionalroofing.net.