

## Overview of Proposed Maine Residential Energy Standards (Maine RES)

- ◆ Voluntary energy standard for new residential construction and for additions, alterations, and repairs to residential buildings in Maine.
- ◆ A market-oriented, value-added program for builders, designers, realtors, and homeowners.
- ◆ Based on national models (Model Energy Code/International Energy Conservation Code).

<b>Proposed Prescriptive Building Envelope and Heating System Provisions of Maine RES</b>			
	<b>Percentage Window Area to Gross Exterior Wall Area</b>		
<i>Building Element</i>	<b>8%</b>	<b>12%</b>	<b>15%</b>
<b>Glazing U-factor</b>			
All Zones	0.35	0.35	0.35
<b>Ceiling R-value</b>			
Zone 1	38	38	49
Zone 2	38	49	49
Zone 3	49	49	49
<b>Exterior Wall R-value</b>			
All Zones	19	19	19
<b>Floor over basement/crawl R-value</b>			
All Zones	19	19	19
<b>Basement wall R-value</b>			
Zone 1	10	10	15
Zones 2 and 3	10	15	15
<b>Central Boiler AFUE</b>			
Zone 1	82%	84%	84%
Zones 2 and 3	84%	84%	87.5%
<b>Central Furnace AFUE</b>			
Zone 1	80%	82%	82%
Zone 2	81%	83%	85%
Zone 3	81%	84%	87%

- These prescriptive values were determined with MECcheck-2000. Percentages are of gross exterior above-grade wall area.  
 - For glazing areas greater than 15%, use component performance approach for compliance.  
 - The R-values for basement walls assume the floor above the basement is not insulated.  
 - The R-values for floors over basement/crawl spaces assume basement and crawl space walls below are not insulated.  
 - Zone 1 includes counties of Androscoggin, Cumberland, Hancock, Kennebec, Knox, Lincoln, Penobscot, Sagadahoc, Waldo, Washington, and York.  
 - Zone 2 includes counties of Franklin and Oxford.  
 - Zone 3 includes counties of Aroostook, Piscataquis, and Sumerset. County groupings based on *International Energy Conservation Code 2000*, page 31.

- ◆ Multiple options for implementation:
  - Prescriptive Approach (build to R-values, U-factors and efficiencies in table).
  - Component Performance Approach (trade-off method using free software—MECcheck—or non-computer worksheets).
  - Systems Analysis Approach (most complicated approach, for houses with energy-renewable features).
- ◆ Compliance certification label available for complying homes (permanent stick-on label for application to electrical panel or other location).
- ◆ Options for compliance include:
  - Self-certification (builder and owner sign certification label).
  - Third-party verification (independent third party inspects and signs certification label).

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 Tuesday, October 16, 2001