

Getting HERS into the Building Code

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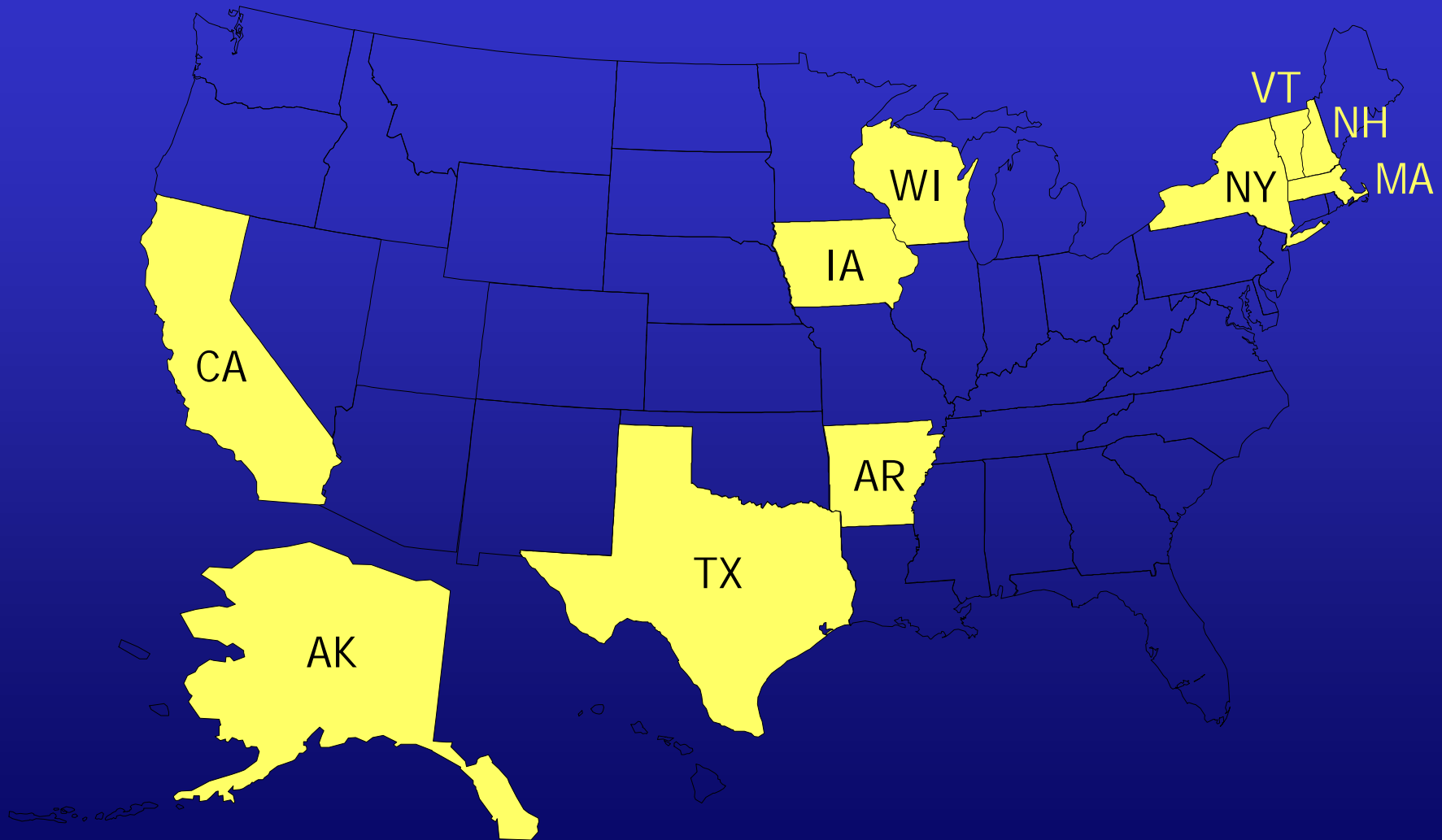
RESNET Conference - February 26, 2003

Overview

- *status quo*
- methods and means
- using ENERGY STAR Homes – MA pilot



HERS as Code Compliance*



* RESNET website, Feb 2003 (almost)



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Rated % of New Homes (2002 - thru Sept)

• AK	52.1	• others over 5%	
• IA	21.9	– HI	41.88
• VT	19.5	– LA	15.90
• MA	14.2	– NV	15.28
• CA	10.4	– AZ	12.84
• TX	8.1	– CT	8.84
• NY	3.3	– IN	6.37
• WI	2.9	– NJ	6.35
• NH	0.4	– RI	5.88
• AR	0.03	– OH	5.18
U.S.	4.2		



Legislation vs. Regulation

- Texas
 - act of God?

VS.

- Massachusetts
 - “How’s it look to you?”
- statewide vs. homerule adoption



Formal vs. Informal

- Massachusetts
 - specific code reference with performance target

VS.

- Indiana
 1. work for state gov't on codes for 13 years
 2. get your friend (the state's chief building inspector) to sign a letter stating that HERS is an acceptable compliance alternative



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Leveraging ENERGY STAR Homes

- Massachusetts program sponsors' pilot
- response to code compliance study
- motivations
 - regulatory mandate
 - lessen gap between standard practice and program threshold
 - learn more about building officials' concerns
 - builder outreach



General Recommendations

- join HBAs to learn builders concerns and educate them about HERS advantages
- serve on code advisory boards, get to know actors and process of code adoption
- investigate and utilize all potential sponsors

Become involved in the public process



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Massachusetts Pilot

- 2 communities selected
- part-time short-term energy specialist performed plan review and on-site inspections, in tandem with local building official (educational opportunities)
- code/energy workshop delivered for builders in each town



Massachusetts Pilot (cont'd)

- energy specialist served as information resource for town inspectors and builders, subs, buyers, general public
- performed HERS rating as code compliance alternative (29 total)



Findings

- Plan Review
 - most energy code compliance submissions were faulty
- Inspections
 - inspectors admit that they spend little time on energy aspects of code
 - FG batts most common; installation generally acceptable
 - air sealing quality varied, but most builders aware of the requirement and reasons



Findings (cont'd)

- Ratings
 - HERS rating tended to be higher than code compliance software would predict
 - credit for non-code benefits (e.g.- buffer spaces, solar orientation)
 - higher U-factors in code compliance tool for identical assemblies
- Energy Seminars
 - generally well received
 - particular interest in practical aspects
 - air sealing, insulation methods, duct sealing



General Pilot Observations

pilot was well received

- officials in both towns have asked for continued assistance
- short-term pilot was not enough to establish ongoing relationship with inspectors or builders
- recommendation to expand the pilot to a circuit rider approach
- need for ongoing, short trainings on assortment of topics (technical and administrative)



DOE "Simplified" Proposal

- "Performance Alternative," Section 404
- maintains mandatory provisions
 - General, 401 (e.g.-scope)
 - Air Leakage, 402.4
 - Moisture Control, 402.5
- 2 drafts available for review at:

[www.energycodes.gov/implement/
doe_2004_proposals.stm](http://www.energycodes.gov/implement/doe_2004_proposals.stm)



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Energy Code Information

- Building Codes Assistance Project

www.bcap-energy.org/

- USDOE

www.energycodes.gov/



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