

"A Marriage That Works"

The Linkage Between HERS and Energy Codes

The Vermont Experience

RESNET Conference 2001 Florida Solar Energy Center

Energy Rated Homes of Vermont

Key Points of Presentation



- History of Vermont Code
- Vermont experience with implementation
- Successful initiatives
- # HERS business opportunities

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History of Vermont Code



- Governor's Task Force in 1996
- Included most stakeholders
- Some wanted higher standard
- Some wanted voluntary instead of mandatory
- Residential Building Energy Standards ("RBES") adopted 1998
 - MEC-95 plus 10%
 - HERS as compliance mechanism
- Energy Code Assistance Center created
 - Code Compliance Manual
 - Builder Hotline Energy Rated Homes of Vermont

History of Vermont RNC Programs



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- Utility programs
- **EPA ENERGY STAR Program**
- Established infrastructure in VEIC

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- Skeptical of Code initially
- Quickly changed our minds
- Offer Code compliance support to builders, architects, home buyers
- Ratings used regularly to demonstrate compliance
- Other Code support services offered

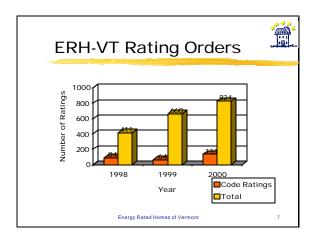
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HERS for Compliance



- 82 points on the rating scale
 - Policy of easier to meet Code using rating
 - Good thing getting an energy efficiency professional into design
- Rating provides credit where Code doesn't
 - Domestic hot water
 - Solar
 - · Air tightness
- Developing Vermont HERS accreditation based on NASEO/RESNET standards

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Vermont Star Homes Program



- Coordinated statewide marketing program for residential new construction
- 5-Star rating, mechanical ventilation system, 30% efficient light fixtures
- Co-sponsorship of workshops and conferences on Code
- Offer Code compliance support to builders
- Reaching over 50% of market for new connects
- 2000: 248 5-Star/ENERGY STAR, 123 Vermont Star
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ENERGY STAR Homes



- Performance Pays Workshops
 - EPA grant in 1999
 - Workshops at lumberyards on Code/ENERGY STAR
- Increased general publics' awareness of energy efficiency
- Opportunities to discuss Codes

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Opportunities



- ## HERS as Code compliance
- Energy Code Assistance Center (ECAC)
- Workshops and conferences
- Studies, monitoring and evaluation

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Energy Code Assistance Center



- Toll-free hotline
- Form fulfillment and completion assistance
- Building science answers
- Contracted to develop Code compliance guidebook
- Offer outside Vermont in future?
- \$10k-\$20k revenue source from DOE grants through Dept. of Public Service

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Workshops



- Poor attendance at prior workshops
- After initial series, lumberyards picked up sponsorship
 - Additional 18 at no cost to Code program
 - Over 800 participants in 1999
- Rater are experts and logical trainers
- Educate on Code, but promote Vermont Star and ENERGY STAR Home Programs

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Code Update Workshops

- TIMA .
- In 2001, will include ventilation standard
- We want to parlay this into renewed interest in builder learning
- Offer new services of workshops for:
 - Architects, builders, HVAC contractors, subs
 - Tell-tale house to garner interest

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Conferences



- Prior builder conferences 50 75
- First year attendance over 200
- Building Solutions 2001:
 - 500 attendees, 50 exhibitors
 - 20% architects (CE credit arrangements)
- Leveraging by combining forces:
 - By partnering with Vermont Star, \$50,000 cost Code project \$7,000
 - One-stop energy program shopping for participants

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Studies, Monitoring and Evaluation



- **#** HERS raters are experts
- Baseline study
- Ventilation field study
- Ventilation standards research
- Code compliance study

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Conclusion

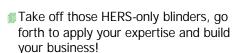


- Integrated approach
- Program coordination
 - · Push-pull market strategy
 - Mandatory Code / voluntary ratings & programs
- Expanded focus beyond HERS:
 - Technical support for the housing industry
 - Education
 - Research

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