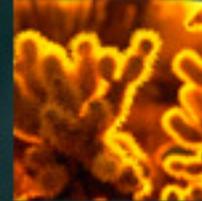




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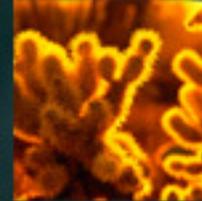
Paths of Glory: Elements of Successful ENERGY STAR Homes Labeling Programs

Steve Baden - RESNET

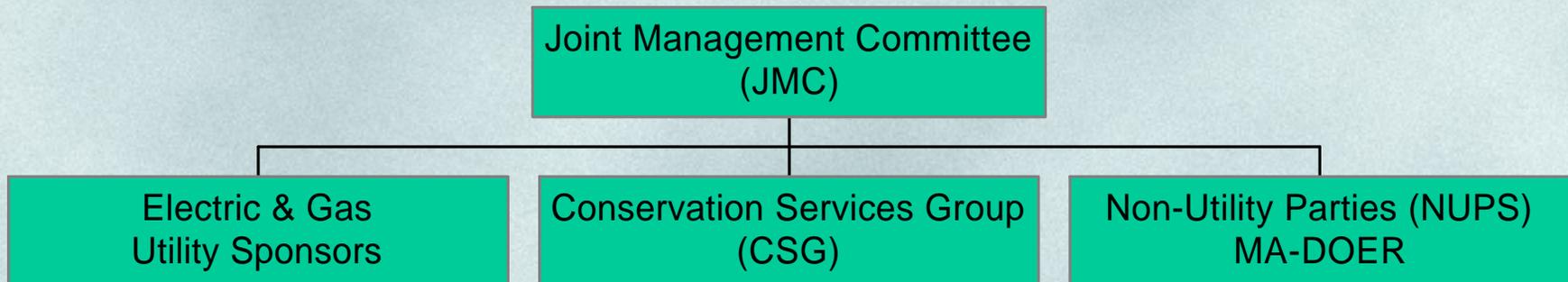
John Livermore - Conservation Services Group



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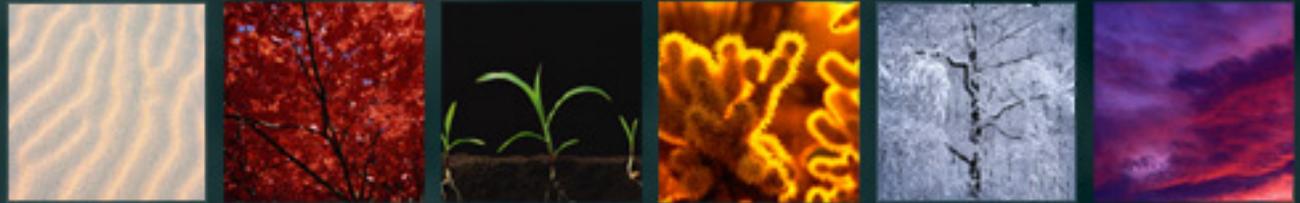


ENERGY STAR Home Program Sponsorship: *JMC*





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ENERGY STAR® Homes

The best value in new construction in New England

Building or buying a new home?

Massachusetts

Rhode Island

New Hampshire

Vermont

Connecticut

Maine

US EPA
National Program



Building or buying a new home in New England? Select the location for your new home on the map to learn more about ENERGY STAR Labeled Homes and how to participate in your region's program.

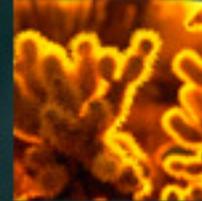
ENERGY STAR is a national, voluntary program developed and sponsored by the US [Environmental Protection Agency \(EPA\)](#) that promotes energy-efficient products, including homes. ENERGY STAR Labeled Homes meet the EPA's performance guidelines for energy efficiency and receive third party verification from an accredited organization.

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This website is maintained by Conservation Services Group, local administrator of the ENERGY STAR Homes Program



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ENERGY STAR[®] Utility Sponsors*

Rhode Island

- Blackstone Valley Electric
- Narragansett Electric
- Newport Electric

New Hampshire

- Granite State Electric
- Public Service of NH
- NH Electric Coop
- CT Valley Electric Coop
- Unitil

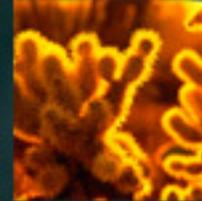
Massachusetts

- Bay State Gas
- Berkshire Gas
- Cape Light Compact
- New England Gas
- KeySpan Energy Delivery
- Massachusetts Electric
- Nantucket Electric
- NStar Electric / NStar Gas
- Unitil/Fitchburg Gas and Electric
- Western Massachusetts Electric

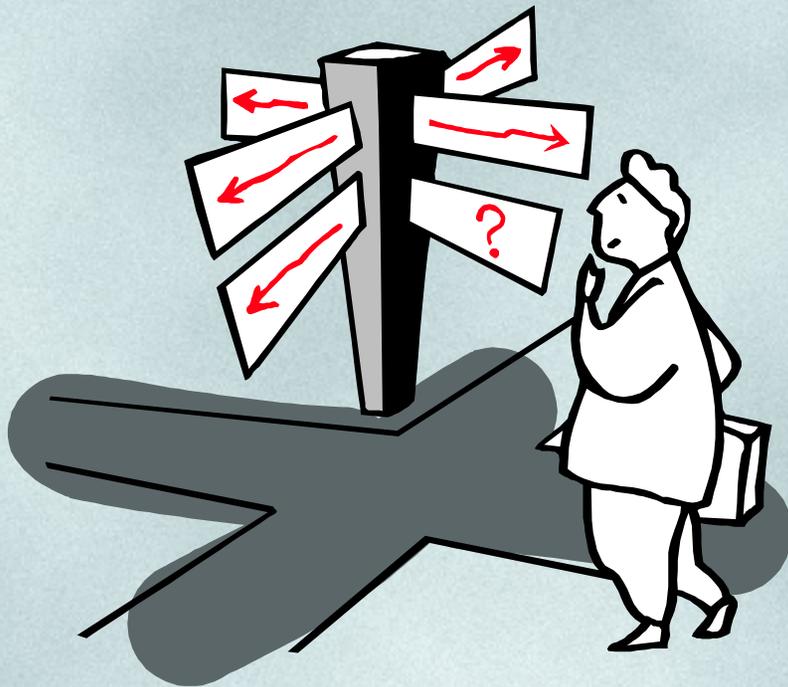
*Winner of EPA's 1999 ENERGY STAR[®] Homes Utility "Ally of the Year" award.



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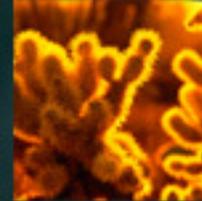
Brief History of the JMC



- **1989:** Energy Crafted Home Program
- HERS 90
- Limited participation
- **1998:** ENERGY STAR Homes Program
- **2002:** Program re-design and MT Plan



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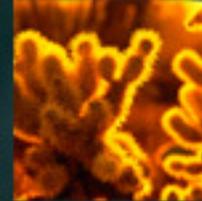


“The JMC is unique in that it’s members are committed to actually *getting stuff done.*”

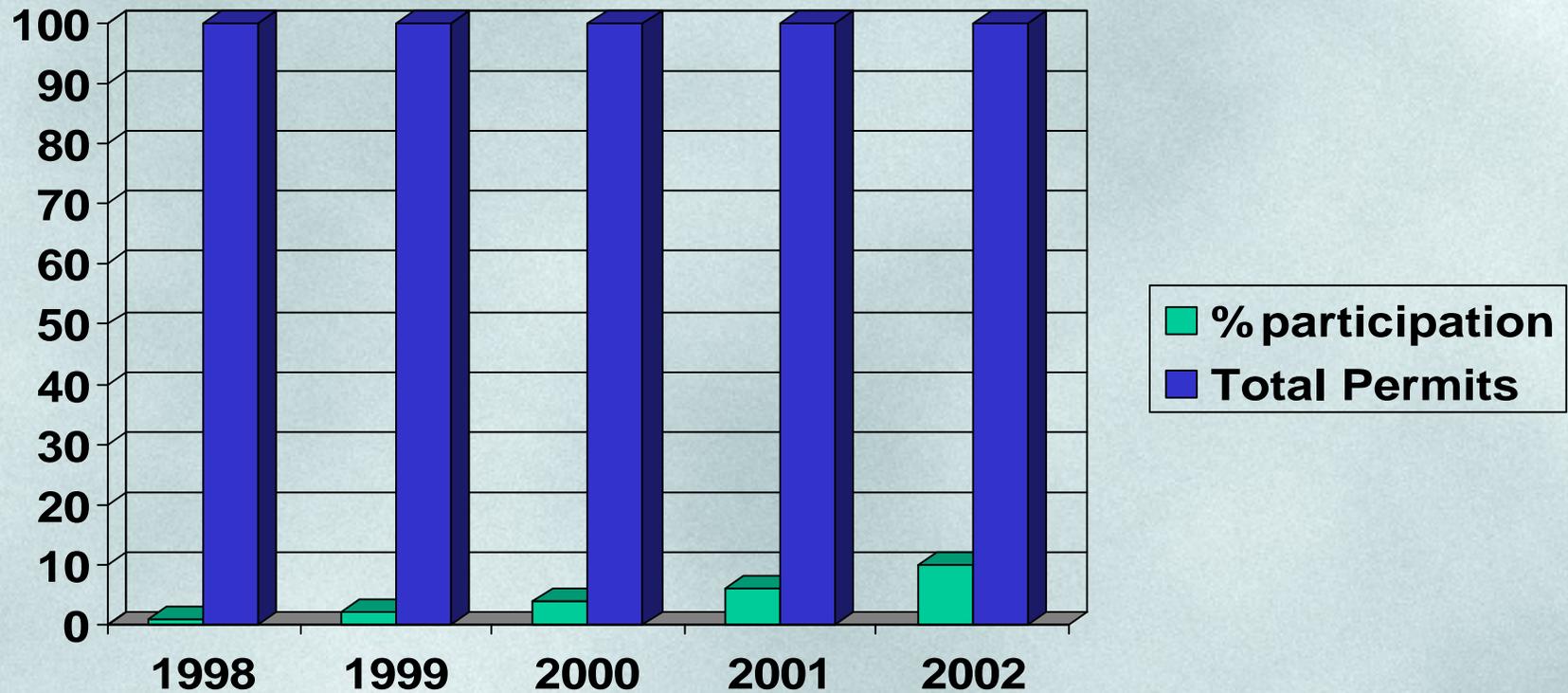
- Greg Rahe, Former JMC member



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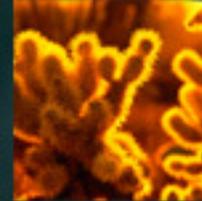


Program Participation: MA

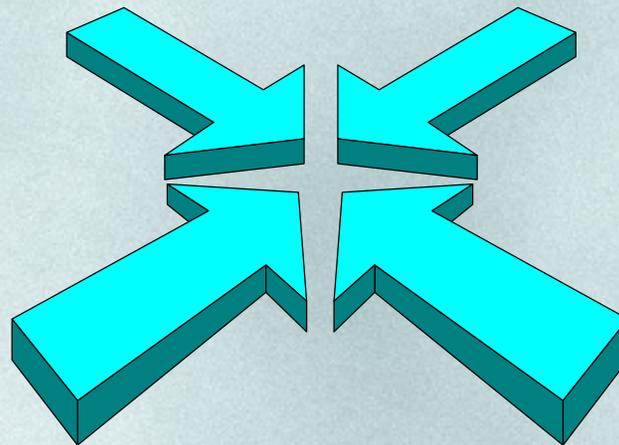




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Goal:
MARKET
TRANSFORMATION





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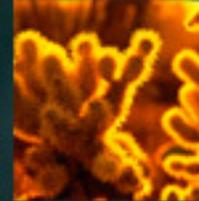
Program Services

- *Plans analysis to determine Home Energy Rating*
- *On-site Insulation and Air Sealing inspections*
- *On-site Performance testing of finished home: Air leakage, Ventilation, and HVAC commissioning*





Conservation Services Group



Rebates/Services Summary

\$ 500/200 Builder Bonus

\$ 100 Mechanical Ventilation

\$ 200 HERS 88

\$ 400 HERS 89

\$ 600 HERS 90+

\$ 400 High Efficiency Gas HVAC

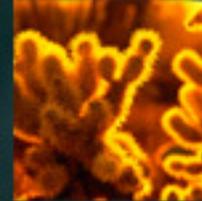
\$ 450 *Value* ENERGY STAR certification

\$ 440 *Value* HVAC Commissioning Service





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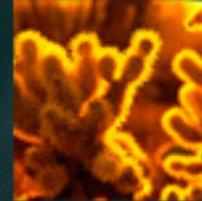


Low-Income/Affordable Housing





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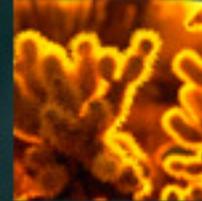
Gut Rehab: Historic Buildings / Challenged Neighborhoods



2/5/2003



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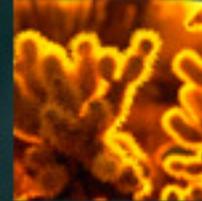


Voc-Tech School Projects





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“We got everything we wanted and more. The most impressive thing is being warm in the winter without having to spend lots of money. I feel there is a better quality of air in the house and my two children get fewer colds in the winter.”

Home buyer in Cumberland, RI

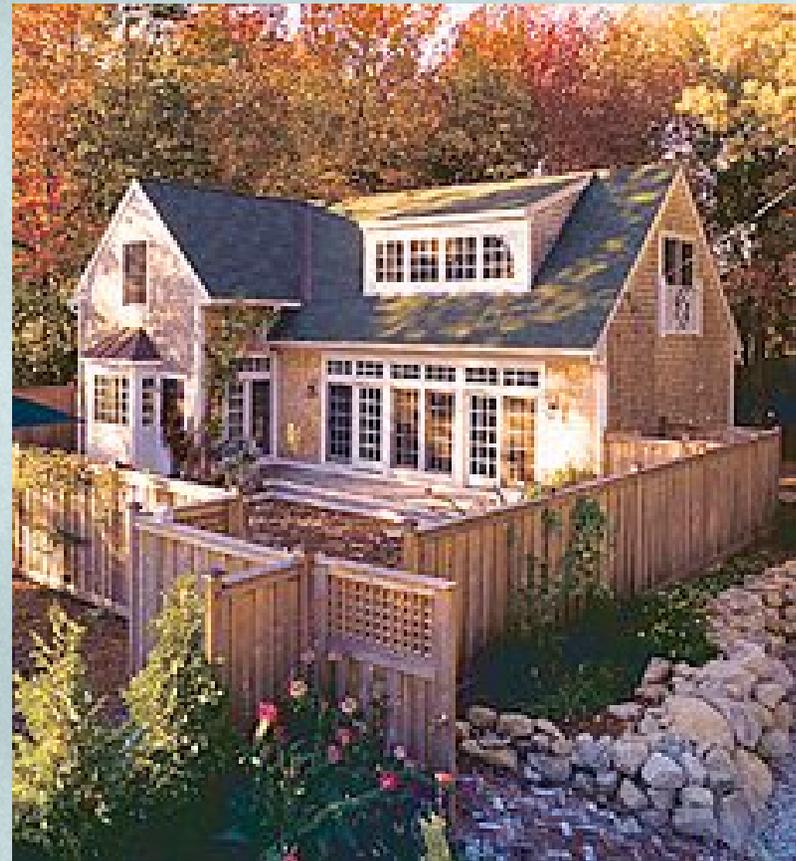


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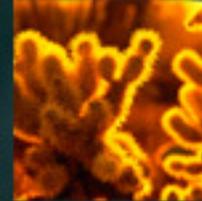
“I can look my customers straight in the eye and tell them ‘*you’ve never lived in a house like this*’. It’s a superior value.”

Paul Bourke
ENERGY STAR[®] Builder





Conservation Services Group



Builder Outreach



What is an ENERGY STAR Home?



The U.S. Environmental Protection Agency (EPA) and the U.S. Department of Energy (DOE) have developed the Energy Star Home program to certify high-performance homes that are significantly more efficient than building code. The Energy Star Homes program is sponsored in New England by a consortium of electric and gas utilities. This utility consortium has enhanced the national program with a comprehensive package of rebates and free services.



An ENERGY STAR Home in Weyland, Mass.

Some of the performance features that distinguish an ENERGY STAR Home from an average quality home are:

☆ Enhanced Insulation

Insulation is measured in R-value; the higher the R-value the greater the insulating effect. Higher insulation levels in walls, floors, and attics result in better energy performance and improved homeowner comfort. The insulation value of the windows is also an important determinant of comfort.

☆ Air Sealing

Simply caulking, foaming and gasketing the holes and gaps in the heated building envelope can reduce annual heat loss and utility bills by up to 30%.

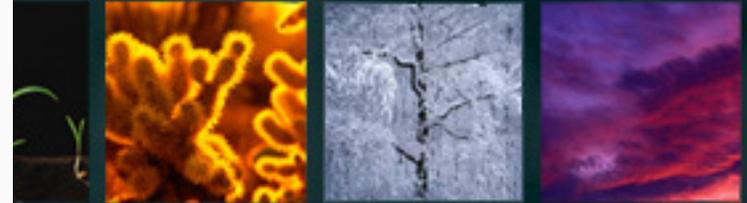
☆ Ventilation

All Energy Star Homes come equipped with mechanical ventilation, which ensures a continuous supply of fresh air to the home.

☆ High-efficiency Appliances

Energy Star Homes typically have high-efficiency household appliances, lighting, and heating & cooling systems, which use less energy to perform the same job.

ENERGY STAR Homes • 800-628-8413 • www.energystarhomes.com



Marketing Materials



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ENERGY STAR® HOMES

Building a competitive advantage



News

VOL. 1 SUMMER/FALL 2000

ENERGY STAR HOMES — BETTER HOMES, BETTER VALUE

The ENERGY STAR Homes label is quickly becoming the clear sign for energy efficiency, comfort and health in new homes built in New England. Created by the Environmental Protection Agency (EPA) and Dept. of Energy (DOE) and sponsored

In 1999, that number jumped to 1,100. For 2000, the projections show over 3,000 residential units in Massachusetts, Rhode Island, New Hampshire and Connecticut will participate. By 2001, another 5,000+ projects are estimated.

For 2000, the program projections show over 3,000 residential units in Massachusetts, Rhode Island, New Hampshire and Connecticut; for 2001, another 5,000+ projects are projected to participate.

regionally by a consortium of gas and electric utilities, the program provides a simple, effective process to support builders in the delivery of better homes at better value.

ONE SIZE FITS ALL

The ENERGY STAR Home can apply to any new residence.

In the last six months, projects have ranged from \$1 million custom homes to \$100,000 Habitat for Humanity homes, high-end condominiums to low-income rental units.

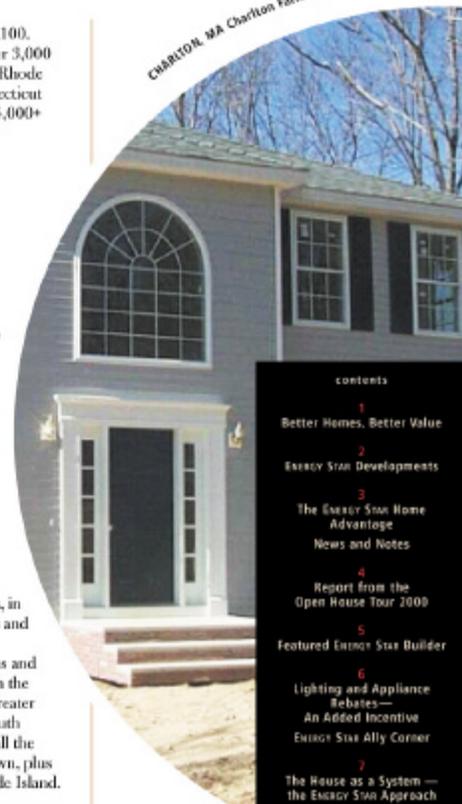
ENERGY STAR Homes have been certified on single lots, in subdivisions ranging from 6 lots to 101 lots, in duplexes, townhouses and 8-story buildings, covering the Berkshires and Pioneer Valley through the Blackstone Valley to greater Boston, North and South Shores and the Cape all the way out to Provincetown, plus Connecticut and Rhode Island.

UNCOMMON STEPS OR COMMON SENSE?

So what does it take to reach ENERGY STAR Home standards? Triple glazed windows, double walls, and a thermos bottle-tight shell?

How about moderate upgrades of insulation levels, low-e windows, some attention to detail on sealing shell penetrations and higher efficiency heating, cooling and DHW

CHARLTON, MA Charlton Farms, Mutual Builders



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- 1 Better Homes, Better Value
- 2 Energy Star Developments
- 3 The Energy Star Home Advantage News and Notes
- 4 Report from the Open House Tour 2000
- 5 Featured Energy Star Builder
- 6 Lighting and Appliance Rebates — An Added Incentive Energy Star Ally Corner
- 7 The House as a System — the Energy Star Approach
- 8 The Energy Star Advantage On-Line

equipment, all readily available and easy to spec?

An ENERGY STAR Home focuses on the house as a system, and seeks a common sense approach to moderately improve four major areas: glazing, insulation, shell tightness and ventilation, and mechanical system efficiency.

CONTINUED PAGE 2



HOPKINTON, MA
Hopkinton Highlands, Toll Bros. Construction



MILFORD, CT
Milford Hunt
& M Homes

THE RISING TIDE

Utility sponsorship of the program began in April 1998. About 300 homes were completed or committed to the program.



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Outstanding Achievement In New Home Construction



—U.S. Environmental Protection Agency and Department of Energy

Only homes meeting the highest standards for energy performance earn the 5-star rating of an ENERGY STAR Home by the EPA and DOE. Using a lot less energy, they're more comfortable, quiet and durable. We invite you to come visit the ENERGY STAR Homes being built by the largest and best builders in New England.



ENERGY STAR® HOMES
Open House Tour

FALL 2000

SUNDAY, OCTOBER 15TH, 12-4PM

*See for yourself
how new homes
should be built.*

OPEN HOUSE LOCATIONS

MASSACHUSETTS SITES

BRANDLEE The Glen at Duxbury Hill (3 home development), Swanton Street, The Green Companies
CHARTER Charter Farms (20 home development), Fitzgerald Road, Mutual Builders
SALT LOMMEBARN Orchard Hill (41 home development), Orchard Road, Dupontville & Sons
ROXBURY Foxglove Highlands (97 home development), Elmwood Road, Tall Bros. Construction
ELMSTED Forest Edge at the Highlands (43 home development), Star Circle, The Green Companies
WESTMINSTER Orchard Estates (18 home development), Orchard Drive, C&H Builders
WINDSOR Windsor Farm Estates (27 home development), Leamwood Drive, Habitat Farm Inc.
WINTHAM Montpelier Estates (181 home development), Ladbroke Road, B.Park's Development Corporation

CONNECTICUT SITES

BRANDLEE Main Circle (5 home development), Main Circle, T&H Homes
MILFORD Millard Street (22 home development), Maplela Road, T&H Homes

RHODE ISLAND SITES

East Greenwich East Greenwich Terrace (22 home development), Off Division Street, T&H Bros. Construction
Westerly Sun & Lawn Drive (78 home development), Route One, P&H Home Corporation

Call 800-628-8413 or visit www.energystarhomes.com for directions and more information.

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By using 30% less energy than conventional homes, these homes can save you thousands of dollars in utility costs. And now, financial incentives are available from your participating utility company for high-efficiency heating equipment, appliances and design advice.

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Whether you're building now or planning to build:

Call 1-800-628-8413

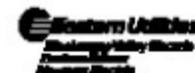
or visit our web site at <http://www.energystarhomes.com> for information about building an

ENERGY STAR Home.

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ENERGY STAR Homes are endorsed by the U.S. Environmental Protection Agency and the Department of Energy for meeting high standards for energy efficiency.



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without this symbol?
Don't waste your energy.**

energystarhomes.com

The Energy Star[®] Homes Program is sponsored by your local gas and electric utility



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ENERGY STAR Home Web Site

- Program outline
- Building Science Q&A
- List of E* Builders and Program Allies
- Hotlinks to websites
- 300+ hits per day

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The best value in new construction in New England

Building or buying a new home?

Building or buying a new home in New England? Select the location for your new home on the map to learn more about Energy Star Labeled Homes and how to participate in your region's program.

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This website is maintained by Conservation Services Group, local administrator of the ENERGY STAR Homes Program

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ENERGY STAR® Homes

Free Builder and Designer's Workshops



LOCATIONS

REGISTER TODAY FOR ONE OF THESE FREE WORKSHOPS!

June, 2011

Tuesday, June 14, 2011

March, 2011

Wednesday, March 16, 2011

Wednesday, 2011

Wednesday, March 16, 2011

March, 2011

Thursday, April 14, 2011

September, 2011

Thursday, March 23, 2011

8:30 am to 4:00 pm

Registration and continental breakfast is free (food/beverage included)



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- Planning for Energy Efficiency
- Smart Building
- Windows

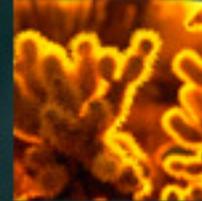
Register today for one of these FREE workshops!

Call 800-220-4470 or email workshops@csgrp.com





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Taking the *Classroom* to the *Construction Site*



CSG

Conserva



I-SMART House



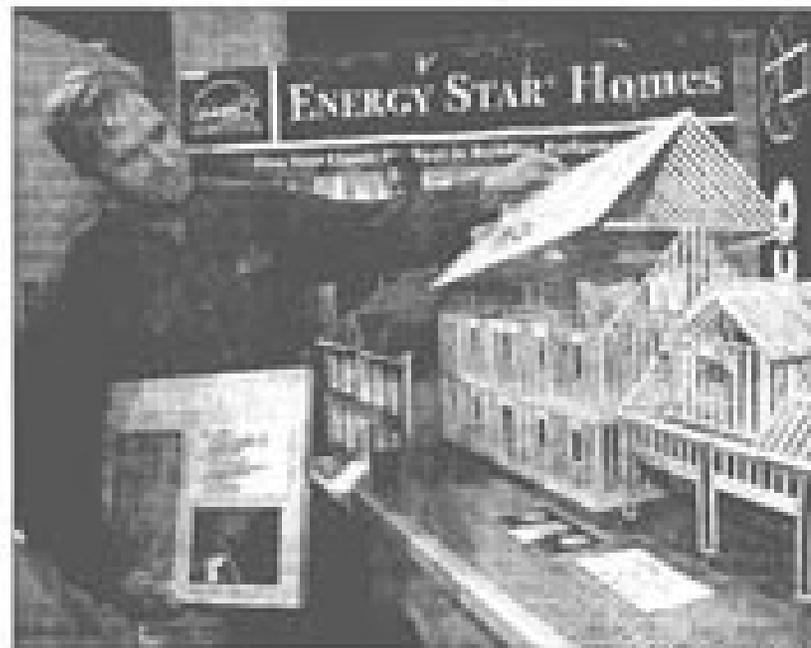
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Media Attention:

- Print
- Radio
- TV

BOSTON Herald

FRIDAY, DECEMBER 6, 2002 • 50 CENTS



STAFF PHOTO BY TOM FITZGERALD

EFFICIENCY EXPERT Paul Wolff of Energy Star Homes shows off a model last month during the Model Homes trade show.

Model behavior aids in building efficient houses

By PAUL HOFFMAN

What makes an Energy Star home?

Using a temporary scale model of a prairie-style colonial home called the I-SMART Home, Energy Star Homes member Paul Wolff illustrates the concept of a house designed for optimal energy performance.

"We see an Energy Star home as an integrated building system that includes wiring, insulation, framing, insulation, air sealing, windows, ventilation, heating systems and efficient appliances," Wolff says. "All of these elements have to work together."

Wolff, who studies architecture at Harvard's Graduate School of Design, built the model and uses it for presentations to builders at training seminars and at industry trade shows. He stresses that Energy Star certification is open to any kind of home regardless of fuel type.

"The model took like a typical colonial

home," he says. The model contains "peel away" layers that show such recommended features as reduced framing costs.

"It's possible to save up to 50 percent in lumber costs from conventional 16-inch, on-center framing by going to 24-inch on-center," Wolff says.

He adds that Energy Star homes will typically have enhanced insulation — whether batt, rigid foam or wet cellulose — high-performance, low-E argon gas-filled double-pane windows, and improved air sealing by caulking, framing and gasketing holes and gaps.

Energy Star homes require an upgrade to either high-performance mini-duct or an air-to-air heat exchanger that will properly ventilate a tightly built house.

Wolff says homes usually have high-efficiency appliances and sealed-combustion heating systems that are up to 50 percent more efficient than conventional



Conservation Services Group



Energy Design Update

The Monthly Newsletter on Energy-Efficient Housing, from CUTTER INFORMATION CORP.

Vol. 21, No. 12

December 2001

INDUSTRY NEWS

Workers in Race Against Alaskan Winter to Repair Failed SIP Roofs

by Steve Andreas with Don Best

With winter basking at their heels, contractors in Juneau, Alaska, are racing to replace the rotted structural insulated panel (SIP) roofs on dozens of single- and multifamily homes. Estimates of the total number of housing units affected now range up to 120. Most of the damaged dwellings are relatively new, constructed

between 1994 and 1997 by at least nine different builders (see EDU, October 2001).

To the casual eye, the structures generally look good on both the interior and exterior. But a closer examination of the roofs — especially the shaded sides — reveals a lot of moss and fungi growing on the shingles (see Figure 1). "We've spotted at least five species of fungi so far," quipped one troubleshooter. But of course, it's not a laughing matter.

Underneath the shingles on these roofs, the top layer of OSB on the SIPs has turned to mush. Note in Figure 2 the soggy remains of the OSB skin and the darkened foam insulation underneath. Nearby, the worker has easily pushed the blade of his jackknife down into the roof, showing only the handle protruding. The measured moisture content of the panels is reportedly sometimes as high as 93%. Building inspectors are worried that if repairs aren't completed on some of the structures when winter really sets in, some SIP roof systems could collapse under a heavy snow load.

A Familiar Old Foe

After some early debate, there is a growing consensus in Juneau that the problems with the SIP roofs were

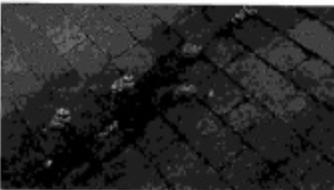


Figure 1 — Fungi, lichen, and algae sprouting on the roof are telltale signs that there's moisture — and lots of it — trapped in the SIPs' underneath these shingles.

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30-YEAR MORTGAGE RATE DIPS
Profile Mac said yesterday that the average 30-year fixed-rate mortgage fell from 7.73 percent last week to 7.65 percent this week.

46 BOSTON HERALD TUESDAY, MAY 5, 2000

Real Estate

Giving homes (Energy) Star power

EPA touts labeling for new home construction

By KAREN VERBAKE
SPECIAL TO THE HERALD

Energy Star, a label you may have seen when buying appliances such as washing machines and refrigerators, will now be used to certify energy efficiency in newly constructed homes.

The U.S. Environmental Protection Agency (EPA) conducted an open house tour recently, showing houses from Ashburn in Wayland that were built to save consumers about 30 percent on their utility bills, around \$400 a year, and help the environment at the same time.

Energy Star is a label developed by the EPA and the U.S. Department of Energy (DOE) and is awarded to products that conserve energy. The agencies set the energy efficiency criteria, which exceed the minimum national efficiency standards, sometimes by as much as 50 percent and the manufacturer or retailer volunteers to place the Energy Star label on models that meet or exceed that criteria. In other words, as a consumer, looking for that label alone is an easy way to identify products that conserve energy.

Energy Star homes are built as robust as podiums, as well as save the home buyer money. The characteristics of an energy-efficient home are tight construction, increased insulation and tightly sealed ducts, among others. One such home featured at the open



GREEN DAY: Jack Crimenza outside his energy-efficient home in Wayland.

house is a Victorian reproduction in Wayland, an elegant house which exemplifies the idea that conserving energy can be achieved without sacrificing beauty.

Jack Crimenza, of Crimenza

Construction in Wayland, is the owner and builder of this Energy Star home. The house is well insulated, with blown-in cellulose, a flame-retardant recycled newspaper, as well as high-density urethane foam, both of which are ec-

environmentally friendly, and have high R values.

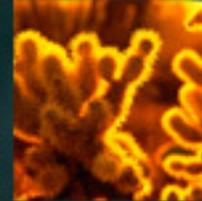
"Energy efficiency is about the intelligent use of insulation," says Crimenza. "You lose more heat through leakage than through the insulation." The windows, doors

and any other openings or connections, such as plumbing from one floor to another, are sealed all around. The windows and doors are high quality. All of

Turn to Page 34



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Awards

- 1999 EPA Utility *'Ally of the Year'* award
- 2000 EPA Energy Star Marketing award
- Energy Star Home *'Builder of the Year'* Award in MA & RI





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EVENTS

Ribbon-cuttings



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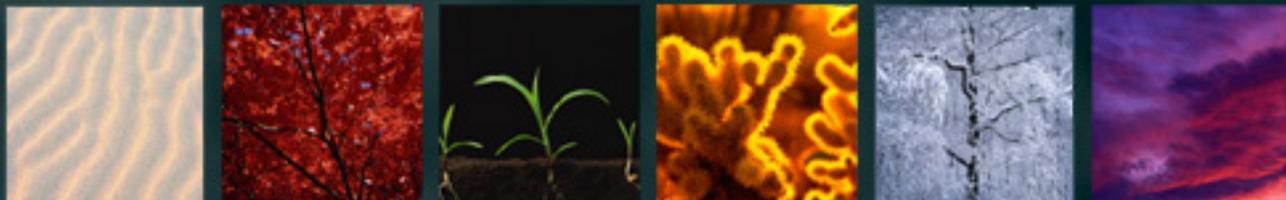


Open House Tours





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There are so many reasons to have your new home built to ENERGY STAR Home standards.

Here are just a few:

- Improved comfort
- Better indoor air quality
- Lower energy bills
- Reduced noise transmission
- Appliance rebates
- Free lighting fixtures
- Special financing options
- Increased home resale value
- 30% more efficient than Model Energy Code
- Free certification and technical support
- Performance testing of each home
- Endorsed by the U.S. EPA and DOE

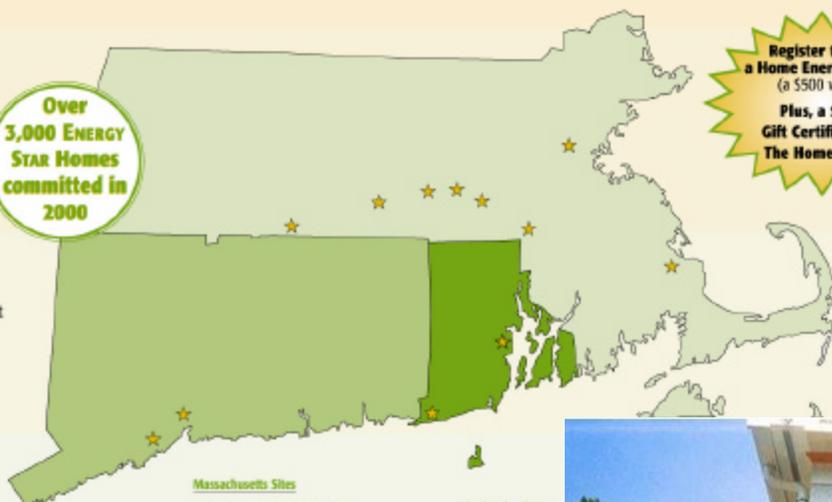


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Come see the ENERGY STAR Homes being built by the largest and best builders in New England

Over 3,000 ENERGY STAR Homes committed in 2000



Massachusetts Sites

Brockton - The Green Companies
 Chelsea - Metal Builders
 East Longmeadow - Chapdelaine & Sons
 Hopkinton - Tall Trees Construction
 Plymouth - The Green Companies
 Woburn - GASA Builders
 Worcester - Hidden Farm Inc.
 Westfield - DiPaolo Development Corporation

Rhode Island Sites

East Greenwich - Tall
 Westley - Park Homes

Connecticut Sites

Hamden - T&M Homes
 Milford - T&M Homes

Register to win a Home Energy Rating (a \$500 value)
 Plus, a \$500 Gift Certificate to The Home Depot

WORCESTER, MA

Hidden Farm Estates (57 home development)
 Developer: Hidden Farm Inc.

Take Rte. 290 to Lincoln Square in Worcester center. Take right off exit ramp onto Congress Street. After approx. 100 feet, take right onto Salisbury Street. Take right on Forest Street which becomes Grove Street. Take left on Parkton Street. Take left into Laurelwood Drive. Hidden Farm Estates is at end of street.

WRENTHAM, MA

Wampanoag Estates (101 home development)
 Developer: DiPaolo Development Corporation

Take 495 North or South to the 1A Exit. Take 1A North; proceed approx. 1/2 mile, take a left onto Eastside Road The development is 200 yards on the left.

HAMDEN, CT

Blake Circle (5 home development)
 Developer: T&M Homes

Take Rte. 15 to the Whitney Avenue exit. Proceed south on Whitney Avenue toward New Haven. After you pass by Hamden Hall Country Day school on the right, take the next right onto Blake Road. Proceed up Blake Road to Blake Circle.

MILFORD, CT

187 Wood Street (100 home development)

OPEN HOUSE TOUR FALL 2000 CO-SPONSORS



Standard with all VELUX skylights is Comfort™ Glass, a state-of-the-art glazing technology that protects against heat loss and heat gain, fading and condensation, resulting in maximum room comfort.

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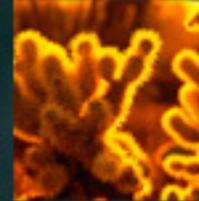
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**T&M Homes
Milford, CT**



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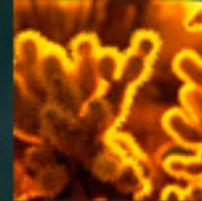
Supporting Massachusetts Code Compliance

- BBRs study found that *less than 50%* of new homes in MA meet all provisions of the state Energy Code!





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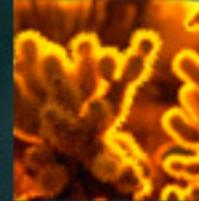
MASSACHUSETTS BOARD OF BUILDING REGULATIONS AND STANDARDS

Energy Efficiency in New Homes





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2002/2003 Energy Codes Pilot



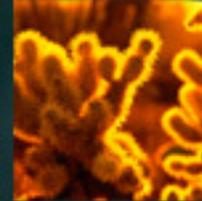
- 2-4 Municipal Building Inspection Departments in MA
- Code compliance documentation review
- HERS ratings
- Site inspections
- Building Science Education



“Sun Power for New Homes”



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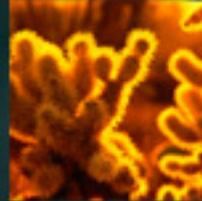


Factors that lead to commissioning “the study”

- JMC metric to produce 5-year program “blueprint”
- Program Theory
- Program Design & Market Transformation Plan: 2003-2007
- Put the JMC program in a *national context*
- Push the envelope – *Improve* the program



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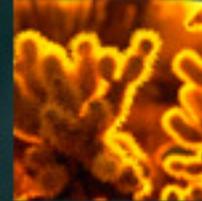


Specific Program Challenges

- Level Budgets...*Increasing* Participation
- Maintain program w/highest tech standards
- Builder misinformation & misunderstanding
- Many builders not even building to code
- Market *dynamics*



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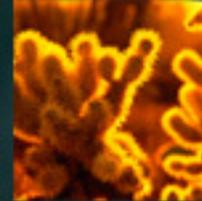


Crafting the Study Parameters

- States with significant rating activity and/or something interesting happening
- Geographic diversity
- Program maturity diversity
- Include State programs with close parallels with JMC program
- Ask informative questions



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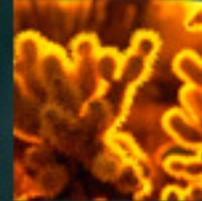


Questions for ENERGY STAR Homes program sponsors

- Program name
- # homes labeled in 2001
- % completions vs permits
- Program Sponsors
- Funding Source(s)
- Use of Sampling/BOPS
- Technical differences from HERS 86 baseline
- State Energy Code baseline
- Program funded services
- Value Added services
- Service Costs
- Incentives/Rebates Offered
- Marketing Elements (targeted to builders; targeted to consumers)
- Program Theory (if any)



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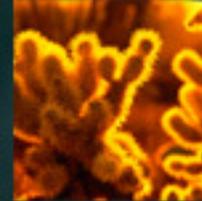


Questions for ENERGY STAR Homes program sponsors (cont.)

- # of builders in State
- # of builders in program
- Territory covered
- Housing market dynamics
- Organizational Structure & Features
- Brief Program history
- Types & % of Ratings performed
- Steps taken to reduce program costs
- Successful program elements
- Manufacturer cost-sharing/co-sponsorship
- Lessons Learned



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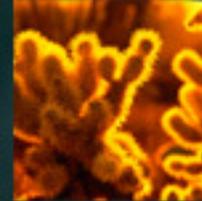


Choosing a vendor

- Over 10 organizations considered
- JMC members voted
- RESNET (Steve) was chosen



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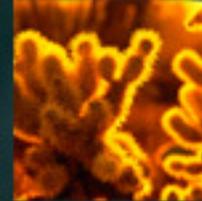


States Covered in JMC Study

- Alaska (38% ENERGY STAR Market Penetration)
- Arizona (12% Market Penetration)
- Iowa (10% Market Penetration)
- Nevada (6% Market Penetration)
- Louisiana (7% Market Penetration)
- Indiana (4% Market Penetration)
- Maryland (2% Market Penetration)
- Wisconsin (1.4% Market Penetration)
- Ohio (1.1% Market Penetration)
- Texas (.9% Market Penetration)
- California (.9% Market Penetration)
- Utah (.9% Market Penetration)
- Florida (.9% Market Penetration)



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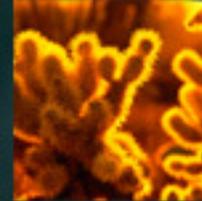


States With Utility Rebates Covered in JMC Study

- California
- Florida
- Iowa
- Texas
- Wisconsin



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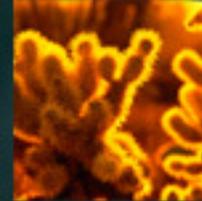


States With State Incentives

- Alaska
- Louisiana
- Ohio



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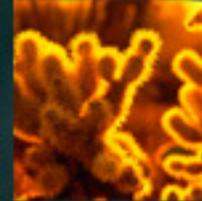


States With No Incentives

- Arizona
- Indiana
- Maryland
- Nevada
- Utah



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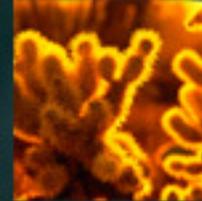


States We'll Focus On

- Indiana
- Nevada
- Wisconsin
- (Arizona, California, Louisiana, and Texas addressed at other sessions of conference)



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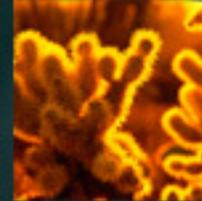


Indiana

- Program Name: Energy Rated Homes Midwest
- ENERGY STAR Homes Labeled in 2001: 1,513
- Projected for 2002: 2,000
- Funding source: Processing fees charged to raters and rater training fees (Seed funding from the State of Indiana)
- Technical differences / requirements from baseline 86 point standard: None
- Sampling/BOPS : None
- Keys to Success: Recruiting lenders to offer discounts on closing costs, one-on-one builder recruitment



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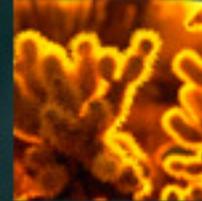


Nevada

- Programs Name: Energy Rated Homes of Nevada, Builders Choice Diagnostics, ConSol
- ENERGY STAR Homes Labeled in 2001: 2,077
- Projected for 2002: 2,005
- Funding source: Processing fees charged to builders
- Technical differences / requirements from baseline 86 point standard: None
- Sampling/BOPS : Sampling
- Keys to Success: Recruiting large production builders to participate, ENERGY STAR Home marketing, and sampling



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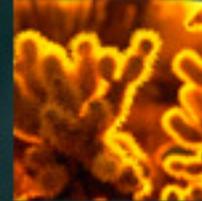


Wisconsin

- Programs Name: Wisconsin ENERGY STAR
- ENERGY STAR Homes Labeled in 2001: 488
- Projected for 2002: 1,000
- Funding source: Utility Public Benefit Funds
- Technical differences / requirements from baseline 86 point standard: In addition to 86 score, program has ventilation requirement
- Sampling/BOPS : None
- Keys to Success: Rebates from public benefit funds



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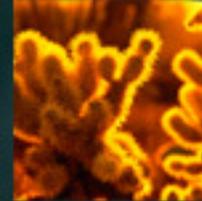


Key Findings of Study

- Market Intervention
- Regional Housing Market Differences
- Regional Climate Differences
- Sampling of Ratings



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Market Intervention

- The most successful ENERGY STAR Programs benefited from market intervention in the form of:
 - * Free design analysis (Building America)
 - * Marketing support from EPA
 - * Utility rebates
 - * State energy office support in launching rating programs



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Regional Housing Market

- Greatest penetration in Southwest with the dominance of large production builders. Large number of homes can be labeled by small number of builders.
- Phoenix: 5,800 homes labeled by 14 builders (avg 418 homes per builder)
- Massachusetts: 841 homes labeled by 49 builders (avg 17 homes per builder)



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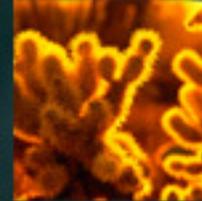


Regional Climate Difference

- It appears that it is relatively easier to meet ENERGY STAR in cooling climates:
 - * MEC window requirements vs. IECC
 - * Common practice of over-sizing a/c
 - * Availability of high efficiency a/c



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Sampling

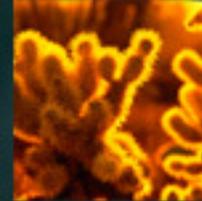
Outside of Alaska and Indiana the largest number of homes were labeled through sampling

Advantages:

- Lower cost per home labeled
- Allows single rating provider to label large number of homes
- Not as disruptive to construction schedule



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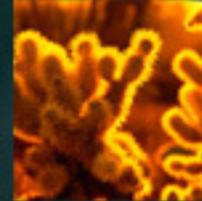
Sampling

Reported common attributes needed to work:

- Large production builder committed to total quality management
- Entire firm from top to bottom needs to be committed to project
- Builder must have track record with building high performance energy efficient homes



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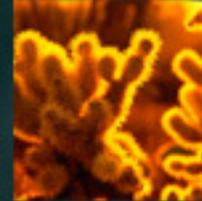


How study has influenced JMC program planning

- Confirmed things we knew and provided new insights
- JMC is on a good course
- A healthy marketing budget is important to maximize Program Success
- Rebates are effective tool: *Reduced for 2003. More rebate dollars tied to HERS score (performance)*
- Don't concentrate \$ on marketing to consumer



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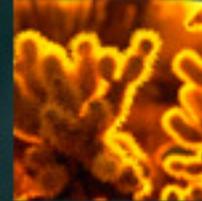


How study has influenced JMC program planning (Cont.)

- Sampling seems to work in some regions; JMC will consider it, but believes it would not be effective in New England.
- Linking energy ratings to standard Code compliance
- Develop marketing alliances (Leverage)
- Partner w/Mortgage co's, Fannie Mae office
- Parade of Homes (Open House Tour) events: Partner with local & regional HBA's



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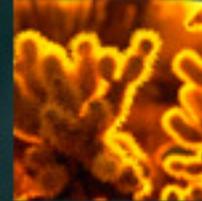


How study has influenced JMC program planning (Cont.)

- Even greater emphasis on Outreach and Training
- Add “Healthy Homes” program component
- No single “silver bullet”...Regionally appropriate approaches work best!



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Paths of Glory: Elements of Successful ENERGY STAR Homes Labeling Programs

Steve Baden - RESNET

John Livermore - Conservation Services Group