ENERGY STAR Labeled Homes: What, How, and Lessons Learned

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National Director, ENERGY STAR for Homes
What?
The national, US government-backed symbol for energy efficiency while assuring same or better performance.

Not Green!
WHAT GROWTH FOR ENERGY STAR: ‘BRAND’ AWARENESS

60%+ awareness in 2004

70%+ households would recommend

95% likely to buy again in future
What Growth for Energy Star: 'Brand' Awareness

Source: Fairfield Research, May 2003
WHAT IS ENERGY STAR FOR HOMES:
HOME BUILDER PARTNERSHIP

- Voluntary
- Define Energy Efficient
- Recognition
WHAT RESULTS FOR ENERGY STAR LABELED HOMES:

GROWTH

Each dot = 50 labeled homes

2003
How?
- **Core customer**: Production builders
- **Develop strong distrib./sales chain**
- **Ensure compelling value propositions**
- **Continually improve**

![Figure 1.1 Annual New ENERGY STAR Homes (EPA 1997 Estimate)](chart)

Source: EPA
HOW DELIVER VOLUNTARY PROGRAM:
BUSINESS MODEL

Production
- Reduce Peak Demand Turn-key Program
- Business Platform National Brand
- Energy Savings Turn-key Program

Distribution
- Utilities
- Tons of Carbon
- State Administrators

Sales Force
- >Customer Sat.
- > Profit
- < Liability

Core Customer
- Better Home
- Lower Cost

End Customer
- Home Buyers
HOW DEFINE ENERGY EFFICIENT:

OLD SPEC

HERS Score of 86 and 15% > code, or equivalent package...

Effective Insulation Levels

Efficient Windows

Tight Ducts, Tested

Build it Tight, Tested
HOW DEFINE ENERGY EFFICIENT:
NEW SPEC

- Expanded HERS Score of 83/84, or equivalent package...
- ENERGY STAR Qualified Lighting, Fans, or Appliances
- IECC Insulation Properly Installed
- Continuous Air Barrier
- ES Qualified Windows
- Right-Sized ES Equip.
- Tight Ducts, Tested
- Eff. Water Htr
- Build it Tight, Tested
HOW ADD QUALITY:
ENERGY STAR INDOOR AIR PKG. SPEC

- ENERGY STAR Qualified Home
- Moisture control
- Radon Control
- Pest Control
- HVAC Systems
- Combustion Venting
- Materials

Safe Materials

• Energy STAR Qualified Lighting, Fans, or Appliances

IECC Insulation Properly Installed

Continuous Air Barrier

ES Qualified Windows

Tight Ducts

Eff. Water Htr.

Build it Tight,

- Water Man. Roofs
- Attic/Clg. Interface
- Water Man. Walls
- Radon Resist. Con.
- Ductwork
- Screens/Shield
- Right-Sized ES Equip.
- Htg./Cooling Equip.
- Water Man. Fndn.
- Ventilation
- Air Filtration

Garage Isolation


Mat. Prep/Install.

CO Alarms
<table>
<thead>
<tr>
<th>Category</th>
<th>% ENERGY STAR Fixtures</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>High-Use Rooms</strong></td>
<td><strong>50%</strong></td>
</tr>
<tr>
<td>Kitchen, Dining Room,</td>
<td></td>
</tr>
<tr>
<td>Living Room, Family</td>
<td></td>
</tr>
<tr>
<td>Room, Bathrooms, Halls,</td>
<td></td>
</tr>
<tr>
<td>Stairways</td>
<td></td>
</tr>
<tr>
<td><strong>Medium-Use Rooms</strong></td>
<td><strong>25%</strong></td>
</tr>
<tr>
<td>Bedrooms, Den, Office,</td>
<td></td>
</tr>
<tr>
<td>Basement, Laundry Room,</td>
<td></td>
</tr>
<tr>
<td>Garage, Closets, and</td>
<td></td>
</tr>
<tr>
<td>all other rooms</td>
<td></td>
</tr>
<tr>
<td><strong>Outdoor Lighting</strong></td>
<td><strong>50%</strong></td>
</tr>
<tr>
<td>Affixed to Home, Free-standing Poles excluding landscape and solar lighting</td>
<td></td>
</tr>
<tr>
<td><strong>Ceiling Fans</strong></td>
<td><strong>100%</strong></td>
</tr>
<tr>
<td>[Where Provided]</td>
<td></td>
</tr>
</tbody>
</table>
HOW PROVIDE RECOGNITION:
ENERGY STAR MARKETING TOOLS

- Logo/Label
- Web Site Listing
- 100% Commitment
- Awards
- Outreach Campaign
- Sales ToolKit
HOW ENERGY STAR FOR HOMES WORKS WITH GREEN:
GREEN HOME STAIRCASE

Energy Efficiency
- Envelope
- Distribution
- Equipment
- Lighting
- Appliances

Indoor Environment
- Bulk Moisture
- Radon
- Pest Control
- HVAC
- Combust. Safety
- Materials
- Commissioning

Resource Efficiency
- Site Planning
- Water
- Materials
- Waste Man.
- Renewables

ENERGY STAR for Homes
Green Programs
<table>
<thead>
<tr>
<th>Green:</th>
<th>ENERGY STAR:</th>
</tr>
</thead>
<tbody>
<tr>
<td>'Shades'</td>
<td>Binary</td>
</tr>
<tr>
<td>Defines overall green</td>
<td>Defines specific attributes of green</td>
</tr>
<tr>
<td>Varying regional/national programs</td>
<td>One national program</td>
</tr>
</tbody>
</table>
**Good News:**
- Better Product
- Lower Cost

**Bad News:**
- People can’t see it
- People won’t know to ask for it

...Commitment to Sell is Critical!
HOW MESSAGE:
TIME TO EMPHASIZE ENERGY SAVINGS
Small Cars in Focus As Gas Prices Rise

By MATT MOORE
The Associated Press
Tuesday, September 13, 2005; 11:52 AM
Power Information Network expects the number of compacts and sub-compacts on the U.S. market grow to grow from 33 this year to 40 in 2010.
“Our subcontractors send their best crews because they know their work will be inspected.”

ENERGY STAR Partner Astoria Homes, Nevada
### JD Powers & Associates  
2005 Builder Quality Rankings

<table>
<thead>
<tr>
<th>Major Market</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major Market Total</td>
<td>112</td>
</tr>
<tr>
<td>Austin</td>
<td>122</td>
</tr>
<tr>
<td>Orange County (CA)**</td>
<td>122</td>
</tr>
<tr>
<td>Sacramento</td>
<td>120</td>
</tr>
<tr>
<td>Houston</td>
<td>118</td>
</tr>
<tr>
<td>Tucson</td>
<td>118</td>
</tr>
<tr>
<td>Dallas/Ft. Worth</td>
<td>117</td>
</tr>
<tr>
<td>Los Angeles/Ventura Counties**</td>
<td>116</td>
</tr>
<tr>
<td>Minneapolis</td>
<td>116</td>
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<tr>
<td>Charlotte</td>
<td>115</td>
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<tr>
<td>Chicago</td>
<td>115</td>
</tr>
<tr>
<td>Tampa</td>
<td>115</td>
</tr>
<tr>
<td>Phoenix</td>
<td>114</td>
</tr>
<tr>
<td>Inland Empire (CA)**</td>
<td>113</td>
</tr>
<tr>
<td>Las Vegas</td>
<td>113</td>
</tr>
<tr>
<td>Raleigh/Durham</td>
<td>113</td>
</tr>
<tr>
<td>Seattle/Tacoma</td>
<td>113</td>
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<tr>
<td>Denver/Colorado Springs</td>
<td>111</td>
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<tr>
<td>San Diego</td>
<td>111</td>
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<tr>
<td>San Francisco Bay Area</td>
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<td>Portland*</td>
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<td>Atlanta</td>
<td>108</td>
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<tr>
<td>Detroit</td>
<td>108</td>
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<tr>
<td>Ft. Myers/Naples</td>
<td>108</td>
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<tr>
<td>Palm Beach</td>
<td>107</td>
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<tr>
<td>Baltimore*</td>
<td>106</td>
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<tr>
<td>Albuquerque*</td>
<td>104</td>
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<tr>
<td>Orlando</td>
<td>104</td>
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<tr>
<td>Washington, D.C.</td>
<td>104</td>
</tr>
<tr>
<td>Philadelphia</td>
<td>101</td>
</tr>
<tr>
<td>Jacksonville</td>
<td>98</td>
</tr>
</tbody>
</table>
Homeowners are willing to pay for:

- **Fresh, Filtered Air**
- **Additional Protection**
  - mold and mildew problems
  - radon exposure
  - annoying pests and termites
  - harmful formaldehyde and VOCs
  - combustion safety
  - wet basements

... are you willing to take their money?
Lessons Learned
LESSONS LEARNED: MARKET RESEARCH

- **Status of HERS Infrastructure**
- **Prevailing Builder Characteristics**
- **Prevailing Construction Practices**
- **Consumer Concerns**
- **Key Homebuyer Touch-points**
LESSONS LEARNED:
PROGRAM DESIGN

- **Single-Tier vs. Multi-Tier**
- **Prescriptive vs. Performance Threshold**
- **Individual Verification vs. Sampling**
- **Regional vs. Individual Programs**
- **Financial Incentives as Last Resort**
- **Involve Stakeholders**
- **Internal vs. External Verification**
- **Preferred Financing Not a Driver**
• Involve Builders and Raters
• Frequency Trumps Single Events
• It’s All About the Builder
• Point-of-Sale Solutions Critical
• Under Promise, Over Deliver
ELEMENTS OF SUCCESS:
EVALUATION

- What Need vs. What Would Like
- No Substitute for ‘Walking the Floor’
- Focus on Vital Few
On the Web at:
http://www.energystar.gov/homes