If ENERGY STAR is the Solution, What’s the Problem?
Problem:
Jobs
Air Quality
National Security
Climate Risk
Solution:
Energy Efficiency
Fact:
Sick Homes
Problem:
Affordability
Comfort
Health
Durability
Solution:

- Efficient Components
  - Control Air Flow
- Control Thermal Flow
- Control Moisture Flow (Vapor, Bulk)
- Quality Assurance
### ENERGY STAR

**Version 3**

<table>
<thead>
<tr>
<th>Control Air Flow</th>
<th>Control Thermal Flow</th>
<th>Control Moisture Flow Vapor</th>
<th>Efficient Equipment</th>
<th>3rd Party Verification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air Sealing</td>
<td>Air Sealing</td>
<td>Air Sealing</td>
<td>Water Man. Roofs</td>
<td>Efficient HVAC</td>
</tr>
<tr>
<td>Tight Ducts</td>
<td>Tight Ducts</td>
<td>Tight Ducts</td>
<td>Water Man. Walls</td>
<td>Efficient WH</td>
</tr>
<tr>
<td>Air Barriers</td>
<td>Air Barriers</td>
<td>Air Barriers</td>
<td>Water Man. Foundation</td>
<td>Efficient Lgtg./Appl.</td>
</tr>
<tr>
<td>Insulation R-Value</td>
<td>Insulation Alignment</td>
<td>Ventilation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Insulation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Min. Thermal Bridging</td>
<td></td>
<td>Dehumid. in Hot/Humid</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Bulk:**
- Ventilation
- Dehumid. in Hot/Humid

**Min. Thermal Bridging:**
- Therm. Encl. Checklist
- HVAC QI Checklists
- Water Man. Checklist
ENERGY STAR New Homes Version 3:

- Thermal Enclosure System
- HVAC Quality Installed System
- Water Management System
- Energy Efficient Components
HVAC SYSTEM QUALITY INSTALLATION

Typical Installation

Field Adjusted SEER vs. Rated SEER

Courtesy of Advanced Energy Corp.
ENERGY STAR Qualified Homes Version 3 Specifications:

What Products?
VERSION 3 PRODUCTS:
THERMAL ENVELOPE SYSTEM

- ENERGY STAR Windows
- More Sealants and Foams
- More Insulation
- More Types of Insulation
- Special Application Insulation Products
- Air Barrier Materials/Blocking/Products
- Raised-Heel Trusses
- Radiant Barrier Sheathing/ Roofing

Installation Training
VERSION 3 SPEC PRODUCTS:
HVAC SYSTEM

- ENERGY STAR HVAC Equipment
- ENERGY STAR Bathroom Fans
- Direct-Vent Furnaces and Water Heaters
- Aesthetic Transfer Grills
- Pre-Made Jump Ducts
- Whole-House Mechanical Ventilation
- High-MERV Filters
- Installation Training
AESTHETIC TRANSFER GRILLS
VERSION 3 SPEC PRODUCTS:
WATER MANAGED CONSTRUCTION

• Bituminous Membranes
• Weather Resistant Barriers
• Pan Flashing Products
• Poly Liners
• Fabric Filters

• **Installation Training**
ENERGY EFFICIENT COMPONENTS

• ENERGY STAR Lighting
• ENERGY STAR Appliances
• ENERGY STAR Ceiling Fans
• High-Efficiency Water Heaters
• Demand-Pumping Systems
Installation Training
ENERGY STAR QUALIFIED HOMES: GROWTH

<table>
<thead>
<tr>
<th>Year</th>
<th>Annual labeled homes</th>
<th>Cumulative labeled homes</th>
</tr>
</thead>
<tbody>
<tr>
<td>96</td>
<td>120000</td>
<td>120000</td>
</tr>
<tr>
<td>97</td>
<td>120000</td>
<td>240000</td>
</tr>
<tr>
<td>98</td>
<td>120000</td>
<td>360000</td>
</tr>
<tr>
<td>99</td>
<td>120000</td>
<td>480000</td>
</tr>
<tr>
<td>00</td>
<td>120000</td>
<td>600000</td>
</tr>
<tr>
<td>01</td>
<td>120000</td>
<td>720000</td>
</tr>
<tr>
<td>02</td>
<td>120000</td>
<td>840000</td>
</tr>
<tr>
<td>03</td>
<td>120000</td>
<td>960000</td>
</tr>
<tr>
<td>04</td>
<td>120000</td>
<td>1080000</td>
</tr>
<tr>
<td>05</td>
<td>120000</td>
<td>1200000</td>
</tr>
<tr>
<td>06</td>
<td>120000</td>
<td>1320000</td>
</tr>
<tr>
<td>07</td>
<td>120000</td>
<td>1440000</td>
</tr>
<tr>
<td>08</td>
<td>120000</td>
<td>1560000</td>
</tr>
<tr>
<td>09</td>
<td>120000</td>
<td>1680000</td>
</tr>
</tbody>
</table>
ENERGY STAR QUALIFIED HOMES: GROWTH

% Market Penetration

Year

2001 2002 2003 2004 2005 2006 2007 2008 2009

0 5 10 15 20 25
ENERGY STAR QUALIFIED HOMES:
RETURN ON TAX PAYER INVESTMENT

15-Year Investment:  
$.040 Billion
[total program costs]

Return:  
~$1.5 Billion
[consumer energy savings]

~$1 Billion
[local govt. tax revenue]

~$1 Billion
[non-participant savings]

~350,000 Cars
[GHGC emission savings]
Thank You
For helping making this all possible