How Did a Program with 6 Staff and $1.7 Million Budget Transform $.3 Trillion Housing Industry?
Quick Answer...

It didn’t...
not by itself.
ENERGY STAR FOR HOMES GROWTH ROAD TO ONE MILLION

Number Labeled Homes

Cumulative

Annual

Year

0 200,000 400,000 600,000 800,000 1,000,000

96 97 98 99 00 01 02 03 04 05 06 07 08 09
ENERGY STAR FOR HOMES GROWTH
ONE IN FIVE HOMES IN 2009

% Market Penetration

Year

2001 2002 2003 2004 2005 2006 2007 2008 2009
ENERGY STAR FOR HOMES GROWTH NEW BUILDER PARTNERS PER MONTH

Before Soft Market | After Soft Market
---|---
0 | ~1,000% Growth!
Seminal Works on ‘Success’

- ‘Inside the Tornado’ by Goeffrey Moore
- ‘The Tipping Point’ by Malcolm Gladwell
- ‘Good to Great’ by Jim Collins
- ‘The Art of Innovation’ by Guy Kawasaki
- ‘Made to Stick’ by Chip and Dan Heath
- ‘First Break all the Rules’ by Gallop Poll
1. Right Corporate Culture
1. Corporate Culture

- Get the ‘Right People on the Bus’
- Get Out of Their Way
- Encourage Them to ‘Learn by Doing’
- Focus on ‘Best in World’ Capabilities
- ‘Brand’ Discipline
- Long-Term Perspective
2. Cross the ‘Chasm’ Strategy
Diffusion Curve: Old Model

Reference: Inside the Tornado by Geoffrey Moore
Diffusion Curve: New Model

Chasm between Early Adopters and Mainstream Users

Market Penetration

Early Adopters

Mainstream Users

Laggers

Time

Reference: Inside the Tornado by Geoffrey Moore
Diffusion Challenge
‘Bowling Alley’ Strategy

Reference: Inside the Tornado by Geoffrey Moore
Energy Star ‘Bowling Alley’

Production
  Mkt. 3

Regional
  Mkt. 2

Manuf. 1
  Mkt. 1

Production
  Mkt. 2

Regional
  Mkt. 1

Production
  Mkt. 1
3. Value-Based Specifications
Value-Based Spec Concept

If ENERGY STAR Qualified Homes is the solution…

what’s the problem?
Perfection is the Enemy of Innovation
Guy Kawasaki
Building Science Fruit Tree

Solution

- Energy Star V.4
- Energy Star V.3
- Energy Star V.2
- Energy Star V.1

Problem

- Lack of Net-Zero Ready Home Definition
- Ensure Complete Systems
- Eliminate Thermal Bypass Defects
- Keep Up With Code
- Low Hanging Fruit Missing
- Lack of Quality Assurance
- Lack of Verification Infrastructure
4. Right People w/Right Message
Tipping Point Goal

Spreading epidemics (innovations) through disconnected community of niche adopters.

Reference: The Tipping Point by Malcolm Gladwell
Right People

Not every person in a social system is equally important:

• **Connectors**
  Inhabit many different worlds and act as a bridge

• **Mavens**
  Experts people listen to

• **Salesman**
  Translate messages, embedding them with meaning

Reference: The Tipping Point by Malcolm Gladwell
Energy Star Right People

EPA Staff identified and leveraged the right people:

- **Connectors**
  Champions (e.g., Sponsors, HERS Raters)

- **Mavens**
  Building Science Experts, DOE Building America

- **Salesman**
  HERS Raters

Reference: The Tipping Point by Malcolm Gladwell
Right Message

• Sticky to target audience
• Audience and action specific
• Once practical and personal, becomes memorable
• Must be memorable to move us to action

Reference: The Tipping Point by Malcolm Gladwell
Don't mess with Texas.

Texas Department of Transportation
Right People/Message
Trumps Incentive Amount

<table>
<thead>
<tr>
<th>Geographic Area</th>
<th>$ Incentive</th>
<th>% Growth</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td></td>
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<tr>
<td>2</td>
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<tr>
<td>9</td>
<td></td>
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</tr>
</tbody>
</table>
Energy Star Sticky Message

• **Consumers:**
  - Better Home
  - Lower Ownership Cost
  - Badge of Honor

• **Builders:**
  - Make Competition Obsolete (differentiation)
  - Reduce Risk (litigation and relevance)
  - Increased Customer Satisfaction
Obsolete Competition

Visibly better **quality**
Superior **comfort**
Future **resale value**
Reduced Risk

Better Test Scores

Better Reliability

Good

Bad

Better Reliability

Reduced Risk
## Customer Satisfaction
### Energy Star 30-Year Warranty

<table>
<thead>
<tr>
<th>Healthy Air Warranty</th>
<th>Affordable Comfort Warranty</th>
<th>Durability Warranty</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓ Lead-Free*</td>
<td>✓ $60/Month Average Heating/Cooling Bill*</td>
<td>✓ No Moisture Damage to Structure*</td>
</tr>
<tr>
<td>✓ Asbestos-Free*</td>
<td>✓ Even Room-by-Room Temperatures*</td>
<td>✓ Dry Basements/Construction*</td>
</tr>
<tr>
<td>✓ Particulates Filtered to 3 Microns*</td>
<td>✓ No Outdoor Drafts*</td>
<td>✓ No Thermal Defects*</td>
</tr>
<tr>
<td>✓ Mold-Free*</td>
<td>✓ Outside Noise Reduction*</td>
<td>✓ 90% UV Sunlight Blocked</td>
</tr>
<tr>
<td>✓ Combustion Gas-Free</td>
<td>✓ No Excessive Humidity*</td>
<td>✓ No Window Condensation*</td>
</tr>
<tr>
<td>✓ 150,000 CF per Day Fresh/Filtered Air*</td>
<td>✓ Radon-Free*</td>
<td>✓ No Termite Damage to Structure*</td>
</tr>
<tr>
<td>✓ VOC-Free*</td>
<td>✓ Formaldehyde-Free*</td>
<td>✓ Pest-Free*</td>
</tr>
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</table>
ENERGY STAR Qualified Homes V.3

Your home has been constructed to U.S. EPA’s latest strict guidelines for energy efficiency including these building science features:

<table>
<thead>
<tr>
<th>Thermal Enclosure</th>
<th>HVAC System</th>
<th>Water Protection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Code or Better Insulation R-Value</td>
<td>Efficient Heating and Cooling Equipment</td>
<td>Heavy Membranes at Valleys and Eaves</td>
</tr>
<tr>
<td>RESNET Grade 1 Insulation Installation</td>
<td>Engineered Sizing of Equipment and Ducts</td>
<td>Complete Roof Flashing Details</td>
</tr>
<tr>
<td>Air-Tight Construction</td>
<td>Air-Tight Ducts</td>
<td>Complete Wall Drainage Plane</td>
</tr>
<tr>
<td>Comprehensive Air Barrier Assemblies</td>
<td>Verified Proper Duct Installation</td>
<td>Pan Flashing at all Doors and Windows</td>
</tr>
<tr>
<td>Reduced Thermal Bridging</td>
<td>Verified Proper Refrigerant Charge</td>
<td>Fabric Filter at Foundation Drain</td>
</tr>
<tr>
<td>High-Performance Windows</td>
<td>Whole-House Ventilation</td>
<td>Capillary Break Under Foundation</td>
</tr>
<tr>
<td></td>
<td>Spot Ventilation</td>
<td></td>
</tr>
<tr>
<td></td>
<td>MERV 6 Filter</td>
<td></td>
</tr>
</tbody>
</table>
5. Continuous Improvement
Continuous Improvement

- Managing Partnerships
- Technical Resources
- Marketing Resources
- Regional Support
- Partner Communications
Continuous Improvement Tools

- Team Collaboration (right people!)
- Process Management
- Web Solutions
- IT Solutions
- Automatic e-mail
- Social Media
ENERGY STAR Qualified Homes
What Got Right Summary

- Right Corporate Culture
- Cross the ‘Chasm’ Strategy
- Value-Based Specifications
- Right People w/Right Message
- Continuous Improvement
LAST THOUGHT…

“It is impossible for a man to learn what he thinks he already knows.”

- Epictetus
THANK YOU SPONSORS…

…for Your Invaluable Contributions to ENERGY STAR for Home’s Success!