

# ***ENERGY STAR for Homes: Home Builder Barriers***

<b><i>1. High Cost</i></b>	<b><i>2. Lack of Consumer Demand</i></b>	<b><i>3. Lack of Sales Skills</i></b>	<b><i>4. Industry Resistance to Change</i></b>	<b><i>5. Lack of Technical Infrastructure</i></b>
<ul style="list-style-type: none"> <li>•First-cost barrier</li> <li>•Overall costs</li> </ul>	<ul style="list-style-type: none"> <li>•Perception consumers don't demand efficiency</li> <li>•Lack of homebuyer education</li> <li>•Lack of education of key players involved in home sales process (Real Estate Agents, Appraisers, Lenders)</li> </ul>	<ul style="list-style-type: none"> <li>•Selling the invisible</li> <li>•Selling non-energy benefits</li> <li>•Lack of trained sales agents</li> </ul>	<ul style="list-style-type: none"> <li>•Risk/Fear of the unknown</li> <li>•Perception already efficient</li> <li>•Changing market conditions</li> <li>•Difficulty securing/keeping internal champions</li> <li>•Complexity of the process</li> <li>•Competing programs (green)</li> </ul>	<ul style="list-style-type: none"> <li>•HERS infrastructure matched to need</li> <li>•Lack of quality/turn-over rate of subcontractors (e.g., tight ducts, TBC, HVAC sizing/install)</li> <li>•Addressing all housing types (e.g., multi-family)</li> <li>•Frustration with RESNET changes</li> <li>•Local building science experts</li> </ul>

# ***ENERGY STAR for Homes: Regional Factors for Utilities Planning***

<i><b>1. High Cost</b></i>	<i><b>2. Lack of Consumer Demand</b></i>	<i><b>3. Lack of Sales Skills</b></i>	<i><b>4. Industry Resistance to Change</b></i>	<i><b>5. Lack of Technical Infrastructure</b></i>	<i><b>Planning Process</b></i>
<ul style="list-style-type: none"> <li>•Cost-effectiveness from builder perspective</li> <li>•Cost-effectiveness from utility perspective</li> <li>•Utility rates</li> </ul>	<ul style="list-style-type: none"> <li>•Existing awareness of energy efficiency including ENERGY STAR</li> <li>•Presence of other programs and incentives in the market (e.g., green, utility, tax credits, state)</li> <li>•Availability of collaborative partners</li> </ul>	<ul style="list-style-type: none"> <li>•Existing awareness of energy efficiency including ENERGY STAR</li> <li>•Baseline level of builders promoting energy efficient homes</li> </ul>	<ul style="list-style-type: none"> <li>•Rigor of prevailing state or local code</li> <li>•The state of the economy</li> <li>•The state of the housing market</li> <li>•Builder geographic distribution</li> <li>•Builder size profile</li> </ul>	<ul style="list-style-type: none"> <li>•Maturity of HERS infrastructure</li> <li>•Technical maturity of builders and subcontractors</li> <li>•Prevailing housing types (e.g., SF, MF) and construction (e.g., ducts in attic, foundation)</li> <li>•Type and number of climate zones affecting design</li> </ul>	<ul style="list-style-type: none"> <li>•Size of market</li> <li>•State regulations regarding utility implementation</li> <li>•Availability of funds</li> <li>•Cost recovery factors</li> <li>•Capacity constraints</li> </ul>

# ***ENERGY STAR for Homes: General Lessons Learned***

## **Communication:**

- It is very important to develop/nurture strong builder relationships at all phases
- Involve stakeholders in every step of the process
- It is important to convey 'good' as well as 'bad' news
- Manage change effectively, even if uncomfortable, by communicating value

## **Infrastructure:**

- Strong HERS infrastructure for verification and sales force is key element of successful programs
- It is very challenging to recruit HERS raters in small housing market since small number of starts limits revenue

## **Working with Builders:**

- Important to understand builder production process (e.g., steps, trades)
- Have educational training platform in place prior to program launch
- Focus on 'champion' builders (Pareto's principle)
- Changing behavior is difficult

## **Leveraging:**

- Leverage partners (e.g., manufacturers, suppliers, local HBA's) to help fund training, events, evaluation
- Consider coupling ENERGY STAR with other energy efficiency programs

## **Process:**

- Incorporate continuous improvement in all phases of program
- Allow for six-month notification before changes
- Invest in experts to help with all steps of the program
- Single-year programs are much more challenging than multi-year programs

# ***ENERGY STAR for Homes: Program Design***

<i><b>Best Practices</b></i>					<i><b>Lessons Learned</b></i>
<i><b>1. High Cost</b></i>	<i><b>2. Lack of Consumer Demand</b></i>	<i><b>3. Lack of Sales Skills</b></i>	<i><b>4. Industry Resistance to Change</b></i>	<i><b>5. Lack of Technical Infrastructure</b></i>	
<ul style="list-style-type: none"> <li>•Consider all options for incentives</li> <li>•Recognize high-cost incentives don't always work best</li> </ul>	<ul style="list-style-type: none"> <li>•Provide funding for builders to educate consumers (e.g., coop advertising)</li> <li>•Develop consumer testimonials</li> </ul>	<ul style="list-style-type: none"> <li>•Develop builder sales training</li> <li>•Develop Train-the-trainer sales programs</li> <li>•Develop a homeowner manual</li> </ul>	<ul style="list-style-type: none"> <li>•Create an effective value message</li> <li>•Consider all options for incentives</li> <li>•Incorporate partner recognition</li> </ul>	<ul style="list-style-type: none"> <li>•Develop HERS infrastructure</li> <li>•Develop technical support</li> <li>•Develop train-the-trainer for technical subjects</li> </ul>	<ul style="list-style-type: none"> <li>•Each utility is unique, needs customized mkt. research/ program design</li> <li>•no correlation between amount of incentive and market growth</li> <li>•Consider a diversity of incentives, but include mktg.</li> <li>•Consider affordable housing</li> <li>•Consider a long-term plan to educate partners on likely changes</li> <li>•Develop training early</li> </ul>

# ***ENERGY STAR for Homes: Marketing and Implementation***

<i><b>Best Practices</b></i>					<i><b>Lessons Learned</b></i>
<i><b>1. High Cost</b></i>	<i><b>2. Lack of Consumer Demand</b></i>	<i><b>3. Lack of Sales Skills</b></i>	<i><b>4. Industry Resistance to Change</b></i>	<i><b>5. Lack of Technical Infrastructure</b></i>	
<ul style="list-style-type: none"> <li>•Provide incentives, but allocate significant portion for marketing</li> <li>•Consider model home incentives to promote ENERGY STAR brand</li> </ul>	<ul style="list-style-type: none"> <li>•Provide funding for builders to educate consumers (e.g., coop adv.)</li> <li>•Educate consumers on value of ES (PR, web, articles, ES Outreach camp., advertising, bill inserts, etc.)</li> <li>•Link with homes events (e.g., Parade of Homes)</li> <li>•Develop consumer testimonials</li> <li>•Integrate ES in regional MLS after traction</li> <li>•Consider training for Appraisers, and Lenders</li> <li>•Cross market with ES Products</li> </ul>	<ul style="list-style-type: none"> <li>•Develop builder sales agent/real estate agent training</li> <li>•Provide guidance on how to use marketing tools</li> <li>•Develop Train-the-trainer sales programs</li> <li>•Promote ENERGY STAR Sales ToolKit</li> <li>•Provide a homeowner manual</li> <li>•Consider incentives linked to sales person so motivated to sell</li> </ul>	<ul style="list-style-type: none"> <li>•Consistently use value message</li> <li>•Promote incentives</li> <li>•Provide partner recognition (e.g., awards, web/ad listing, etc.)</li> <li>•Publish articles in local HBA newsletter</li> <li>•Provide performance feedback to builders</li> <li>•Sponsor ENERGY STAR events</li> <li>• Use PR to Promote successful builders to attract competitors</li> </ul>	<ul style="list-style-type: none"> <li>•Recruit HERS infrastructure</li> <li>•Consider facilitating a regional HERS association</li> <li>•Provide tight QA/QC for HERS verification</li> <li>•Provide technical support</li> <li>•Provide train-the-trainer for technical subjects</li> </ul>	<ul style="list-style-type: none"> <li>•Don't allow key marketing message to get too technical</li> <li>•Don't give away too much material unless sure to be used</li> <li>•Incorporate tracking system</li> <li>•Coordinate and co-market with 'green' programs</li> </ul>

# ***ENERGY STAR for Homes: Evaluation***

<i><b>Best Practices</b></i>					<i><b>Lessons Learned</b></i>
<i><b>1. High Cost</b></i>	<i><b>2. Lack of Consumer Demand</b></i>	<i><b>3. Lack of Sales Skills</b></i>	<i><b>4. Industry Resistance to Change</b></i>	<i><b>5. Lack of Technical Infrastructure</b></i>	
<ul style="list-style-type: none"> <li>•Establish baseline energy cost with utility billing analysis</li> <li>•Evaluate energy savings with a utility billing analysis</li> </ul>	<ul style="list-style-type: none"> <li>•Conduct customer surveys</li> <li>•Measure impact of all marketing efforts</li> <li>•Monitor rates and types of complaints</li> </ul>	<ul style="list-style-type: none"> <li>•Monitor effectiveness of all sales training</li> <li>•Monitor effectiveness of sales/marketing tools</li> </ul>	<ul style="list-style-type: none"> <li>•Track program data (e.g., core metrics)</li> <li>•Conduct builder surveys</li> </ul>	<ul style="list-style-type: none"> <li>•Evaluate integrity of the HERS process</li> <li>•Evaluate delivery of key technical developments (e.g., tight ducts, TBC)</li> </ul>	<ul style="list-style-type: none"> <li>•Consider all options; there is no 'silver bullet'</li> <li>•Sample size is critical</li> <li>•Establish acceptable 'tolerance' for accuracy</li> <li>•Use outside raters for HERS evaluation</li> <li>•Incorporate corrective action plan for nonconformance</li> <li>•Consider integrated vs. sequential evaluations</li> <li>•Consider purchasing an infrared camera</li> </ul>