

# Developing an Energy Performance Modeling Startup Kit

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## Developing an Energy Performance Modeling Startup Kit

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*All tables were created by the NAHBRC team.*

## Executive Summary

The U.S. Department of Energy's Building America (BA) Program is a research and development program to improve the energy performance of new and existing homes. BA's ultimate goal is to achieve examples of cost-effective, energy-efficient solutions for all U.S. climate zones. This goal will be met using a whole-house system engineering approach and by uniting segments of the industry that traditionally work independently of one another, including architects, engineers, builders, remodelers, trade contractors, manufacturers, material suppliers, community planners, and mortgage lenders.

As a BA team, the NAHB Research Center Industry Partnership has a significant research focus on high performing existing homes. The goals for this work include addressing technology solutions and whole-house packages, considering implementation tools to foster adoption of BA best practices, and helping to hasten the growth of the energy retrofit market. Technology solutions are important, but one significant gap for existing home energy performance remodeling is business models. In this context the practices of business management, deployment, risk management, and motivation associated with potential growth and profit drive remodeling and hold the promise of a sustainable energy retrofit industry.

The NAHB Research Center Industry Team's strategic approach for this project is to identify business models for the remodeling industry that foster remodelers' adoption of energy efficiency services. Remodeling contractors often need additional technical, marketing, and other resources to successfully provide energy upgrades to their customers. The ultimate goal is to develop and assemble a set of operating and marketing guidelines and resources for remodelers, similar to the business startup kit, to increase their likelihood for success in expanding their current services to include a comprehensive menu of energy upgrade options.

This is a multiyear effort. The major tasks include:

- Assess the needs and motivations of residential remodelers.
- Assess the needs and motivations of homeowners.
- Develop energy performance remodeling startup guidelines, tools, and central information resources.
- Outreach.

## 1 Introduction

In 2011, the NAHB Research Center began the first part of the multiyear effort by assessing the needs and motivations of residential remodelers about energy performance remodeling. For this work, energy efficiency was defined as either a whole-house gut rehab (remodel) or above-code measures enhancing the energy efficiency of the existing home. The scope is multifaceted—all perspectives will be sought related to remodeling firms ranging in size from small-scale, sole proprietor to national. This will allow the Research Center to gain a deeper understanding of the remodeling and energy retrofit business and the needs of contractors when offering energy upgrade services.

The research questions to assess the needs and motivations of residential remodelers for ultimately developing an energy performance remodeling startup kit include:

- What business models have worked and failed for remodelers in the energy improvement services market?
- What are the known untapped markets and ideas for accessing them?
- What are the current barriers and solutions for overcoming these obstacles?
- What are the gaps and challenges to entering the market and sustaining a market presence?

To determine the gaps and the motivation for energy performance remodeling, the NAHB Research Center conducted (1) an initial series of focus groups with remodelers at the 2011 International Builders' Show; (2) a second series of focus groups with remodelers at the NAHB Research Center in conjunction with the NAHB Spring Board meeting in Washington, D.C.; and (3) quantitative market research with remodelers based on the findings from the focus groups. Three goals ensued:

- Understand the current remodeling industry and the role of energy efficiency.
- Identify the gaps and barriers to adding energy efficiency into remodeling.
- Quantify and prioritize the support needs of professional remodelers to increase sales and projects involving improving home energy efficiency.

This report will outline all three tasks with remodelers.



## 2 Remodelers' View of Current Industry and Energy Efficiency

The first step was to conduct three focus groups with remodelers at the 2011 International Builders' Show in Orlando, Florida, in January 2011 to understand the current remodeling industry and the role of energy efficiency. The purpose was to explore perspectives and practices related to energy efficiency upgrades in the remodeling business to identify ways to help remodelers successfully increase sales of energy efficiency upgrades. The objectives were to gain a better understanding of the remodeling business, determine various approaches to energy efficiency upgrades and retrofits, and identify tools that could help remodelers and contractors position and sell energy efficiency upgrades. Results will be used to develop quantitative research.

The conclusions of the three groups about the current remodeling industry included:

- **The slowdown in new construction and economic climate has shifted to greater focus on existing homes and remodeling.**
  - More consumers are staying in their homes and deciding to upgrade, and many builders are turning to remodeling work to supplement their businesses.
  - The lending restrictions, lack of appraisal value on energy efficiency upgrades, and the flood of individuals into the remodeling arena have created a very competitive, price-sensitive market.
- **Qualified remodelers and builders strive to differentiate themselves based on experience, knowledge, and customer service, in addition to quality building practices.**
  - Anything that can help differentiate them from the “hacks” and convey to the consumer the value an experienced, qualified remodeler or builder brings to the table would be appreciated.
  - Any tools provided should help position the remodeler or builder as the expert and build trust and confidence among consumers.

The conclusions of the three groups about the role of energy efficiency in the remodeling industry included:

- **Information sources that remodelers/builders could use to demonstrate return on investment (ROI) or provide a cost/benefit analysis for energy efficiency upgrades would be valued.**
  - Include an energy audit that assesses current energy consumption and lifestyle.
  - Demonstrate to consumers the potential savings or “payback” they could realize if they make various upgrades; connect the dots in terms of upgrades and real-world benefits.

- **Finally, educate remodelers and builders about best practices and approaches and help to motivate.**
  - Remodelers and builders who have conviction that energy efficiency upgrades are “the right way to build” tend to have more success implementing the upgrades. Their approach comes across as a knowledgeable recommendation with the consumer’s best interest in mind rather than a sales attempt with the remodeler’s or builder’s financial interest in mind.

The complete key point summary report to understand the current remodeling industry and the role of energy efficiency is included in Appendix A.

### 3 Remodelers' Gaps and Barriers to Adding Energy Efficiency into Remodeling

The next step was to further identify the gaps and barriers to adding energy efficiency into remodeling through two focus groups with remodelers at the NAHB Research Center in conjunction with the NAHB Spring Board meeting. The purpose was to explore current practices related to energy efficiency upgrades in the remodeling business to identify ways to help remodelers successfully increase sales of energy efficiency upgrades. Results will be used to develop quantitative research. The objective was to build on the previous focus groups to further detail the gaps and specific solutions for adding energy efficiency upgrades to remodeling including tools to sell the upgrades to homeowners.

The conclusions of the two groups about the gaps and barriers to adding energy efficiency into remodeling included:

- **Most remodelers believe there is definite growth potential for energy efficiency upgrades; however, long-term success depends on upgrades becoming market driven.**
  - Incentives that are based on improved home performance rather than specific products will have greater long-term benefit because they broaden perspectives.
  - Shifting homeowner mindsets to “performance” of the home helps them to understand the value of making energy efficiency upgrades beyond the scope of their remodeling projects.
- **There are several points of frustration for remodelers:**
  - Perhaps the greatest source of frustration is that homeowners do not perceive the value of doing energy efficiency upgrades.
  - It is difficult to teach homeowners to think in terms of the home’s energy efficiency performance when they are focused on one specific area of the home for the remodeling project.
  - Cost barriers are also a pain point.
    - Many homeowners do not want to spend money on blower door tests or energy audits. Remodelers believe, however, that results of the audits and tests would demonstrate problems to homeowners.
    - Because costs are typically out of pocket for homeowners, they may not be able to afford the energy efficiency upgrades, or they may cut the energy efficiency upgrades from their budget in favor of aesthetic upgrades.
    - The monthly energy bill savings may not be worth the upgrade investments to homeowners.

- Energy efficiency improvements do not add appraisal value to the home; therefore, the improvements are viewed as a cost and homeowners looking to sell are not motivated to make the improvements.
- **Homeowners need to perceive a “reason why” they should invest in the upgrades.**
  - Motivators and hot buttons will vary; however, remodelers can identify pathways to positioning the upgrades by listening for cues and by asking homeowners specific questions during the beginning phases of the project.
  - Predominant motivators for making the upgrades tend to be:
    - Reducing monthly energy bills.
    - Having more predictable energy bills each month.
    - Being able to maintain more even and/or comfortable temperatures within the home.
    - Improving indoor air quality.
  - Some homeowners are motivated by being more environmentally responsible (e.g. living green) and contributing to the conservation of our nation’s resources.
  - Helping homeowners to connect the dots between a problem and solutions is necessary for buy in.
- **Remodelers don’t want to come across as “selling” but rather as recommending solutions that will benefit the homeowner.**
  - Equipping remodelers with key questions to ask, as well as key facts, can enable them to position themselves as knowledgeable professionals.
  - Educational information regarding energy inefficiency and its implications can help to create awareness among homeowners that there are issues that could be improved.
    - *Ex: Did you know that you could be paying 10 – 20% more than you should be in monthly energy costs because of leaky ducts, drafts, outdated heating & cooling systems or insufficient insulation?*
  - Industry information from a 3<sup>rd</sup> party source (e.g. Department of Energy, NAHB, etc.) adds credibility. Energy saving tip sheets or “Did You Know?” informational pieces that remodelers could give homeowners would help to create receptivity, and to build confidence in the remodeler.
- **Most remodelers agreed that the most beneficial things for stimulating growth of energy efficient upgrades would include:**
  - Development of an Energy Performance Scores rating system for existing homes, which is implemented nationwide.
  - Establishing appraisal value for energy efficient upgrades.

- Realtor education as to value energy efficient upgrades bring, and how to sell the features.
- Points off mortgage interest for energy efficient upgrades.
- **For remodelers, the following “tools” would be of value:**
  - Informational/educational resources to shift consumer thinking to home performance, increase understanding of problems, understand benefits of various types of upgrades, etc.
    - Website, DVD, printed materials
  - Consumer campaign to increase awareness and understanding of the value of energy efficient upgrades (done by government, utilities, etc.).
  - Free/low cost energy audits for homeowners.
  - Key questions to ask in order to identify opportunities, position benefits to homeowners.
  - Means of quantifying impact of energy efficient upgrades (e.g. pre/post testing, energy savings calculators, etc.).
  - Connecting remodelers with energy auditors so they can develop a referral network.

The complete key point summary report to further identify the gaps and barriers to adding energy efficiency into remodeling is included in Appendix B.

## 4 Remodelers’ Needs for Improving Home Energy Efficiency

The final step was to quantify and prioritize the support needs of professional remodelers to increase sales and projects involving improving home energy efficiency. This was addressed through quantitative market research with remodelers. This phase of the research builds upon the qualitative remodeler focus groups, conducted at IBS and at the NAHB Research Center, to quantify and prioritize the support needs of professional remodelers to increase sales and projects involving improving home energy efficiency.

The qualitative market research included a total of 160 respondents. Key questions and the research results included:

**What percentage of your recent clients fit into the following groups when it comes to accepting energy efficient upgrades?** According to remodelers, 21% of their clients actively seek energy efficiency upgrades during a home remodeling project. Another 39% said their clients are open to the idea of energy efficiency upgrades (Table 1).

**Table 1. Client Attitudes Toward Energy Efficiency Upgrades**

<b>% Clients in Following Groups</b>	<b>Mean</b>
Bottom line focused—will not spend any more than they have to.	40%
Can be convinced—may or may not think about energy efficiency, but are open to the upgrades once they understand the benefits.	39%
Embraces, or actively seeks, energy efficiency.	21%
Total	100%

When working with clients, which of the following statements most closely describes your company’s approach to energy efficient upgrades? Forty-three percent of remodelers follow the approach of incorporating energy efficiency into as many jobs as possible (Table 2).

**Table 2. Company Approaches to Energy Efficiency Upgrades**

<b>Company Approach to Energy Efficient Upgrades</b>	<b>Frequency</b>
We do not try to sell or offer energy efficient upgrades unless they are specifically asked for by the client.	6%
We offer or recommend it when the energy efficient upgrade is cost effective and is directly related to the home improvement project.	51%
We believe energy efficient upgrades are part of “doing it the right way” and incorporate this into as many remodeling jobs as possible.	43%
Total	100%

- **What is the relative importance of all of the issues (see Table 3)?**
  - Remodelers believe their biggest obstacle to selling energy efficiency upgrades is that appraisal values factor into what types of remodels clients are willing to undertake.
  - Other major obstacles include: clients unable to discern between high and low quality construction in the bidding phase; Realtors are not able to describe the value of energy efficiency; Difficulty in comparing existing homes on their energy efficiency; and that homeowners want to see tangible differences after a remodel, making it difficult to sell energy efficiency.
  - The top 10 issues are included in Table 3. The complete Start-Up Kit Remodelers Quantitative Market Research Results Overview report to quantify and prioritize the support needs of professional remodelers to increase sales and projects involving improving home energy efficiency is included in Appendix C.

**Table 3. Issues Important to Remodelers**

<b>Priority</b>	<b>Issues Sorted by Importance to Remodelers</b>
<b>1</b>	Appraisal values factor into what type of remodels clients are willing to undertake, and energy efficiency is difficult to value.
<b>2</b>	Clients are typically unable to discern between high quality and low quality construction at the bidding phase. Often they select the lowest cost bidder. This makes selling upgraded energy efficiency difficult.
<b>3</b>	Realtors, who are in contact with homeowners as they buy/sell homes, aren't able to describe the value of energy efficiency.
<b>4</b>	There is no standard way to compare a home's energy efficiency when buying or selling an existing home.
<b>5</b>	Homeowners want to see tangible differences, often focusing on aesthetics or functionality, which makes energy efficiency a difficult sell.
<b>6</b>	One popular way to determine airtightness, a blower door test, is expensive and most clients are not willing to pay for just an evaluation.
<b>7</b>	Homeowners see energy efficiency upgrade costs as an expense and not an investment.
<b>8</b>	Clients don't understand the value of energy efficiency. They place little value on it. If consumers don't see a problem, then they won't purchase the solution.
<b>9</b>	There is little real demand for energy efficiency. Homeowners are just following the money for rebates.
<b>10</b>	No coordinated efforts between the federal government, state government, and utilities when it comes to offering, applying for, and complying with energy efficiency incentive programs.

The next step of the multiyear project will include similar research with homeowners. These findings will then be the basis for developing the Energy Remodeling “Start-up Kit” guidelines and assembling the most relevant technical and business resources.



## **Appendix A    Qualitative Market Research—Understanding Remodeling and Energy Efficiency Upgrades**

*(initial set of remodeler focus groups)*

# Understanding Remodeling Business and Approaches to Energy Efficient Upgrades

## *Qualitative Research Key Points Summary*

**2011 International Builders Show  
Orlando, FL**

**Prepared for:**

*The NAHB Research Center Industry Partnership  
as part of the  
U.S. DOE Building America Program*

**February, 2011**

## Objectives and Methodology

The purpose of the research was to explore perspectives and practices related to energy efficient upgrades in the remodeling business in order to identify ways to help remodelers successfully increase sales of energy efficient upgrades.

- **Specific objectives were to:**
  - Gain a better understanding of how the remodeling business works
  - Assess perspectives and approaches regarding energy efficiency upgrades/retrofits
  - Identify tools that could benefit remodelers/contractors in positioning and selling energy efficient upgrades to homeowner
  - Discuss within context of whole-house and partial energy efficiency upgrades
- **Three focus group discussions were conducted among remodelers, general contractors, and custom builders at the 2011 International Builders Show.**
  - Group 1 = regularly installing a lot of energy efficient upgrades (more than 3 types)
  - Group 2 = frequently/always installing energy efficient upgrades, but only 2 – 3 types
  - Group 3 = occasionally install energy efficient upgrades

Energy efficient upgrades screened for:

- Ⓜ Appliances
- Ⓜ Windows
- Ⓜ Insulation
- Ⓜ HVAC
- Ⓜ Solar panels
- Ⓜ Other

## Objectives and Methodology

- **Each group consisted of eight participants who...**
  - All either made or influenced the final decision for selecting building materials used in their projects
  - Represented a mix in terms of remodelers, general contractors, and custom builders
  - Represented a mix in terms of title/role and geographic market

Type of Business	(n= 24)
Remodeling	2
Remodeling/General contracting	7
Remodeling/Custom new home building	11
Custom new home building	7

- **Participants represented 17 different states:**
  - CA, CO, DE, FL, IA, KS, MA, MD, MT, NC, NJ, NM, OR, PA, TN, TX, WA

*NOTE: Qualitative research seeks to develop insights into attitudes, beliefs, and opinions, rather than quantify precise measures; therefore findings can not be reliably projected to a larger population. Results provide a better understanding of perceptions and practices and should be used as directional insights.*

# Summary of Key Findings

## Summary of Key Findings

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## The exploratory nature of the research helps to uncover opportunities and barriers for increasing energy efficient upgrades

### By exploring:

### We can identify:

Current market climate



- What trends or shifts have been impacting the remodeling business
- How the current market climate influences the potential for energy efficient upgrades in remodels/retrofits

Remodeling business structure, approach



- How business structure impacts approach
- What attitudes & philosophies shape business practices
- How energy efficient upgrades are handled
- How well equipped remodelers/builders feel to sell energy efficient upgrades

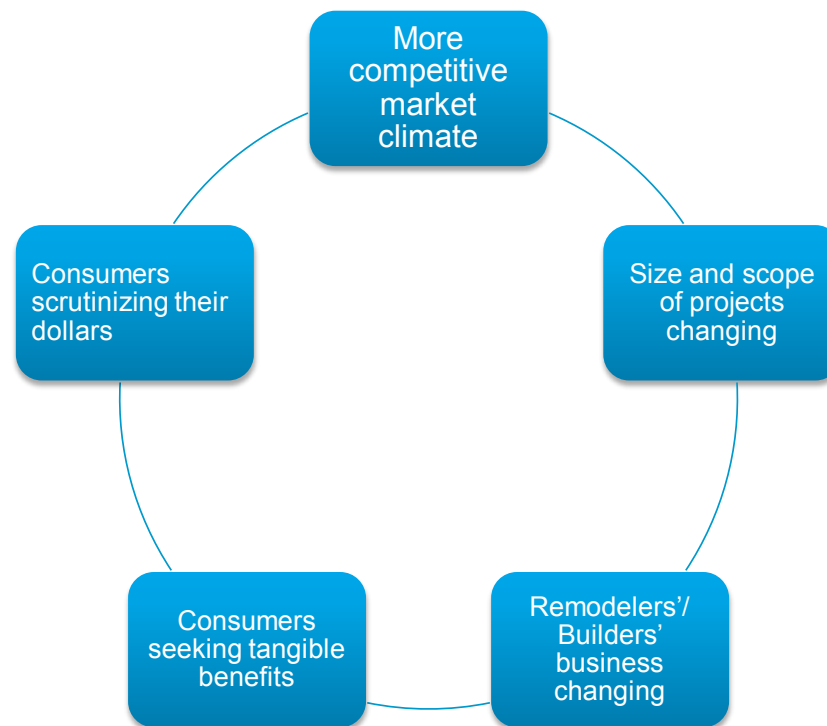
Consumer mindset



- What consumers are looking for in their remodel
- Degree of receptivity to energy efficient upgrades
- How to connect with them to position energy efficient upgrades

## Remodeling Business – Market Climate Snapshot

The economy and decline in new home construction have impacted the remodeling business in numerous ways



Remodelers/builders are faced with a number of challenges and must find ways to differentiate and demonstrate the value they bring to the consumer



## Remodeling Business – Market Climate Snapshot

### Focus on remodeling has increased among both consumers and builders

- **Lending restrictions are stifling new home purchases; therefore, many consumers are focused on updating their existing home**
  - Some renovate with the intent of staying in the home over a longer period of time
  - Others renovate with the goal of increasing the appraisal value for resale
- **Decline in new home construction has forced many builders to downsize and/or pursue more remodeling business**
  - Many have been forced to reduce the number of employees
  - The amount of remodeling projects as a proportion of their business has increased in order for them to stay afloat
- **Layoffs within the building industry, and even other industries, have resulted in an influx of people vying for the remodeling work**
  - Climate is extremely competitive
  - Market has been flooded with “hacks” who often are not well qualified and who undercut on price
  - Prevalence of individuals doing whatever work they can at a low price has created a dollar focus rather than value focus among many consumers

Yield different implications for energy efficiency

Consumers often don't have a good understanding of what it takes to do a job right, so they don't want to pay more

## Remodelers/builders consistently noted several challenges faced as a result of the economic climate

- **By far, the greatest challenge faced stems from the flood of competition for remodeling projects**
  - Most do not mind competing against other qualified remodelers who are in the same boat; however...
  - What remodelers/builders consider to be greatly hurting the remodeling industry is the influx of “hacks” who may or may not be qualified, or even licensed, to do the work and who greatly undercut bids in order to get the work

*“I’ll have a \$50,000 - \$60,000 kitchen job that’s a total gut, all new lighting, new appliances, and then I’ll have Joe in the pickup truck come by and say he’ll do it for \$25,000 and I’ll lose the job.” (Remodeler, NJ)*

↓

### Detrimental impact because:

- Ⓣ Most are not licensed and have no insurance (puts homeowner at risk)
- Ⓣ Lack of education among homeowners leads them to believe they are getting an apples to apples comparison in terms of job quality and scope, when often they are not
- Ⓣ Low bidding magnifies already existing price sensitivity and fosters a price-driven consumer mindset rather than benefit and value-driven mindset

*“A lot of people are really just going for price now; they’re not going for quality. You can tell them all the extra energy factors and things but they’re not really concerned.” (Remodeler/GC, TN)*

## Remodeling Business – Market Climate Snapshot

### The type of remodeling projects are also shifting, with consumers having to scrutinize use of their dollars more carefully

- **The scope of work/size of remodeling jobs has diminished in many areas due to economic factors**
  - Many consumers are not willing to spend, or not able to get financing
  - For many remodelers, scope of work has shifted from whole house guts or major additions to just focusing on the kitchen, bath or other single rooms; or instead of adding to the house, focusing more on renovations
  - Projects have gone from \$100,000+ in scope to \$30,000 - \$40,000
  - See increase in consumer mentality of “do some now, then wait and do more later” or in trade-off evaluations where other things (car, landscape, etc.) are competing with remodel for available dollars
- **Appraisal value shapes what some consumers are willing to invest in, which can be barrier to selling energy efficient upgrades**
  - Lenders will not give appraisal value for energy efficient upgrades; therefore, many consumers chose to spend their dollars on “cosmetic” renovations and upgrades that will increase the resale value of their home
  - Consumers who value energy efficiency may believe it’s better to invest in a new home than to invest in upgrading their existing home

## Understanding the Remodeling Business

### The participants have had to adjust their business focus and structure in order to survive

- **Many of the participants have had to reduce number of employees. As a result, some are “putting back on the toolbelt” and doing some of the work themselves**
  - For many of the participants, number of employees has declined to 3-4 or to no other employees
  - The larger remodelers and custom builders have remained more stable, maintaining anywhere from 10 to 20 employees
  - Most, but not all, use sub-contractors, particularly for specialty trades such as electrical, plumbing and HVAC
  - Reasons for not using subs are primarily:
    - Financial – capable of doing work and want to keep more dollars in-house
    - Quality control – subs can have a compartmentalized mentality and only focus on their task rather than how everything needs to work together
  
- **Most of the custom builders have taken on more remodeling work due to slow down in new home construction, but reliance on remodeling business varies within their business mix**
  - For some custom builders/GCs, remodeling projects have become more of a primary focus due to sharp declines in new home sales
    - While some are committed to focus on building their business, or part of it, around remodeling, others are simply doing whatever it takes to survive until new home construction picks up
  - For custom builders with a more diversified mix of business (high end custom, production, townhomes, light commercial, etc.) remodeling projects have increased but remain a smaller proportion of business
    - These builders tend to be more selective in the remodeling projects they take on

## Understanding the Remodeling Business

There are varying degrees of perceived potential, and subsequent emphasis on remodeling among the builders

Builders for whom remodeling is...

### Smaller percentage of business

Have more diverse new construction business mix

Tend to be more selective in remodel projects

Apply new construction business philosophy to remodels (e.g. "this is the way we build")

### Increased %; may even exceed new construction

Will do variety of projects - whatever available

Exploring potential in remodeling; searching for ways to differentiate themselves

### Primary focus

See great business potential in remodeling

Have had success

Many tend to position on green building practices

A larger builder created a whole separate division focused on remodeling, and on doing it from a green or energy efficiency perspective

One builder shared that his company modified their business plan to no longer include remodeling because:

- ⊗ Too competitive
- ⊗ Low margins
- ⊗ Low volume of jobs

## Understanding the Remodeling Business

### Most of the remodelers/builders position themselves on their reputation for quality rather than on a particular area of expertise

- **Only a handful of the builders participating specifically market themselves as being a specific type of remodeler**
  - All who do, emphasize green building practices. While they do promote energy efficiency, the positioning in their minds is “green” which encompasses more than energy efficiency.
  - These builders approach the remodels much the same way they do custom home building, in that they are selling their business philosophy and target specific types of customers.
  - Energy efficiency can range from adding efficient appliances in the kitchen to a whole house remodel with energy efficiency included.
- **Often remodelers/builders rely on their reputation for quality and experience as a “reason why” for homeowners to consider them**
  - Many participants have had much success with referrals; customers who experience the benefit of their work share the outcomes with neighbors, which helps to drive demand. The remodelers/builders describe a “neighborhood effect” in which one project often leads to several other projects on the street or in the neighborhood.
  - The remodelers/builders pride themselves on their industry knowledge and in their client base.
  - While most participants are using some type of marketing materials (website, brochures, magazine advertising, etc.), they firmly believe in the value of interpersonal interaction and reputation.
  - Building trust among their clients is important to them.

*“The only people surviving in our area are the guys who have a reputation and who do it right and are trusted.” (Remodeler/  
custom builder, WA)*

Although many of the remodelers/builders have committed to doing energy efficient upgrades as standard practice, they treat it more as a part of their overall business philosophy rather than a unique selling point or strategic positioning.

## Understanding the Remodeling Business

### Much of what the participants emphasize is knowledge and service, with the goal of building trust among clients

- **Strategies and tactics that remodelers/builders use in their approach to winning business include:**
  - Clearly and precisely outlining scope of work and what it will take to do the project upfront during the bid process. Remodelers/builders shared several different approaches to this:
    - Charging a small fee for putting the scope of work/estimate together (\$250 - \$2500, depending on scope). The fee will be credited to the project if the homeowner chooses the remodeler, or the homeowner is then free to take the scope of work to other remodelers to use for estimating. The homeowner has paid for the scope, so they are free to work with another remodeler if they choose.
    - Preparing a detailed scope of work but not providing an estimate at that time. The homeowner is then encouraged to get other bids and bring them back. Then the remodeler/builder will provide their estimate. This keeps control of the bidding process in the remodelers'/builders' hands.
    - Providing a project schedule with the estimate so the customer understands what is encompassed and how long it will take
  - Setting parameters for type and size of projects:
    - *"I limit myself. We've had longevity in the area so we have a reputation. There's so many people competing in the market. I limit my focus to \$100,000 or above which eliminates competing with the guy working out of his truck. So people know that if they want a high end kitchen or high end job they come to me. I really push the service to differentiate. The regulatory market in Boston is unbelievable so you really need qualified people to do the work."* (Builder, MA)
    - Screening customers to ensure the customer is a good fit for the remodeler's/builder's building philosophy. Being willing to walk away from customers or projects who are not a good fit.
  - Emphasize having the resources to stay on the job everyday and to stay on schedule, particularly if homeowners are living in the house during the remodels. Educate homeowners as to the process and what is involved.
    - Positions against "guy in the pickup truck". If he is sick or gets busy with other work, could lose days on the<sup>13</sup> project, which is inconvenient for homeowners. He might not provide lien waivers, ec.

Helps to ensure apples to apples comparisons on bids



## Understanding the Remodeling Business

### Remodelers/builders contrast remodeling work to new construction in terms of predictability and ability to impact whole house performance

- **One of the main challenges with remodeling or even additions is that you are only focusing on a portion of the home**
  - This can be a particular challenge in respect to energy efficient upgrades because only updating isolated areas does not yield a maximum benefit to the homeowner
  - Remodelers are also constrained to some degree because they can not go in with the “whole house” perspective in terms of how things integrate
- **There is also an element of unpredictability with remodels**
  - The remodeler/builder can often get into a project and discover issues that need to be addressed that were not evident when the project scope was originally developed
    - This often involves insulation, pipes or electrical
    - The additional work needed can create worry and stress among homeowners because they may already be maxed out on their budget, or they may feel like the remodeler/builder is just trying to sell them
  - However, scope of work often changes due to homeowners wanting to do more once they get into a project. The remodelers/builders strive to paint a concise, clear picture of the project at the time of contract, so “scope creep” can be challenging in terms of managing expectations and budget.
- **The “problem solving” often required in remodeling influences the subcontractors used**
  - Remodelers/builders prefer to use the same subs on a regular basis because they know the quality of their work and their work ethic → trust is an important factor
  - Expect the trades to be licensed, but don’t go through a process of reviewing certifications/credentials; focus more on quality of work and reputation; rely on referrals from other remodelers/builders
  - Several builders prefer to use a different group of subs for remodels than they use for new construction for several reasons. First, remodeling requires thinking from a broader, more integrated perspective and new construction subs tend to think compartmentally. Builders also want to make sure homeowners would be comfortable with the subs in their homes.

*“New construction is a process and most people understand that process. But when you go into a remodel, you have to have someone on the job that actually knows how to build.”*

(Builder, DE)



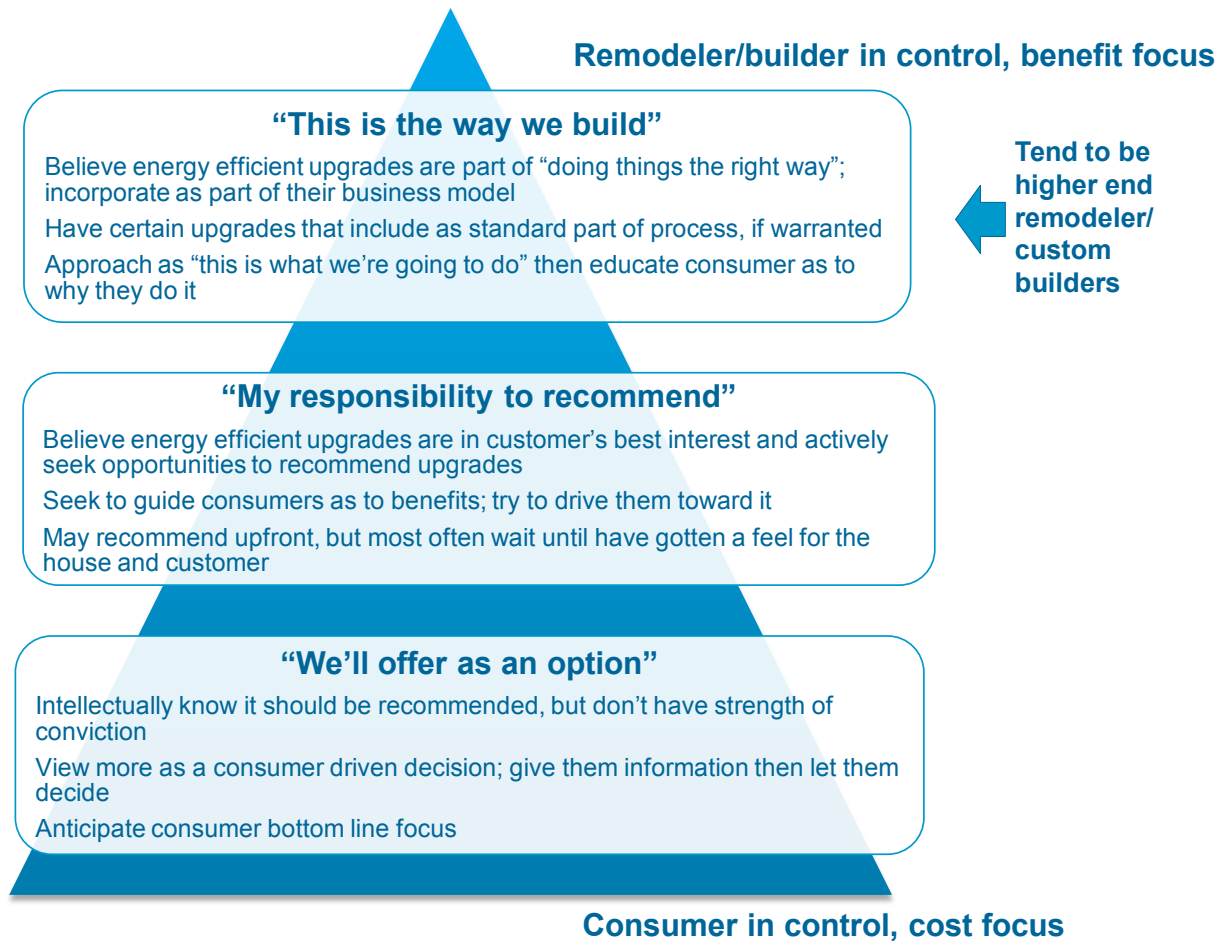
## The majority view energy efficiency as a long-term shift in building practice

- **Nearly all were in agreement that our country is moving toward greater energy efficiency and that the emphasis will only increase**
  - New energy codes are coming out
  - Some municipalities are adopting Energy Star requirements as code
  - People are slowly becoming more educated on energy efficiency
- **A few however, had “wait and see” attitudes, somewhat anticipating a pendulum swing backward after current momentum dissipates**
  - Cite example of big push in 1970s toward energy efficiency, then “nothing”
  - Concern about consumers jumping on the government rebate bandwagon without truly understanding energy efficiency and how they can benefit

*“I’ve been through the cycle and it just follows the money. I’ve already started to see a cool down. It’s either the norm, the normal way of thinking or there’s the customers who just look at it as a way to get a new window.” (Remodeler/Builder, PA)*

- **All were in agreement that consumer education plays a vital role in the acceptance and embracing of energy efficient upgrades, particularly in remodeling**
  - The remodel is the homeowner’s project, “their dream,” and the remodeler’s/builder’s role is to fulfill that dream
  - The remodeler/builder can recommend energy efficient upgrades but the homeowner needs to perceive a meaningful benefit to them in order to spend the money on it, particularly if it means shifting dollars from aesthetics

## Remodelers/builders approach energy efficient upgrades with different philosophies and practices



## Remodelers/builders approach energy efficient upgrades with different philosophies and practices (cont'd)

### This is the way we build

*"For us it's a standard. We won't even think about doing a remodel without upgrading everything we touch. If we're putting in a new kitchen, then part of the package has to be, 'we're insulating this kitchen' even if they don't insulate the rest of the house."*  
(Builder, CA)

*"I tell everyone that any project I do is going to be built to green standards."*  
(Remodeler/Builder, CO)

### Responsibility to recommend

*"I'm a very firm believer that it's my duty to inform the customer of all the necessary things that make the house work properly, within the realm of the project."* (Remodeler/Builder, PA)

*"Most of the time when you're in the house they'll start mentioning their heating bill is high or this room is drafty and then you get in there and see that they don't have enough insulation and make the recommendations. They may not do it at the time, but at least you've educated them and they'll come back later on [and call you because they see you as the expert]"* (Remodeler/Builder, TN)

### Offer as an option

*"We give people an option of the type of insulation we use. If they want to use closed cell foam and pay for it, they'll get a higher R-value, or if they just want to meet code, we'll meet the code."* (Remodeler/Builder, PA)

*"We always offer it as an option, but with our customers it always comes down to bottom line and they have to make the decision as to the way they want to go."*  
(Remodeler/Builder, TN)

## Insulation is one of the most common energy efficient upgrades that the remodelers/builders incorporate

- **Remodelers/builders find that many older homes have no insulation or little insulation**
  - Adding insulation when there is little to none makes sense and is something the homeowner can easily grasp
  - It is often easier to get buy-in under this scenario than in situations where the house has adequate insulation but could benefit from an upgrade

*"In my area, some of these older houses have no insulation at all. It's a given that nobody does a remodel without adding insulation and a housewrap or foam on the outside." (Remodeler/Builder, IA)*

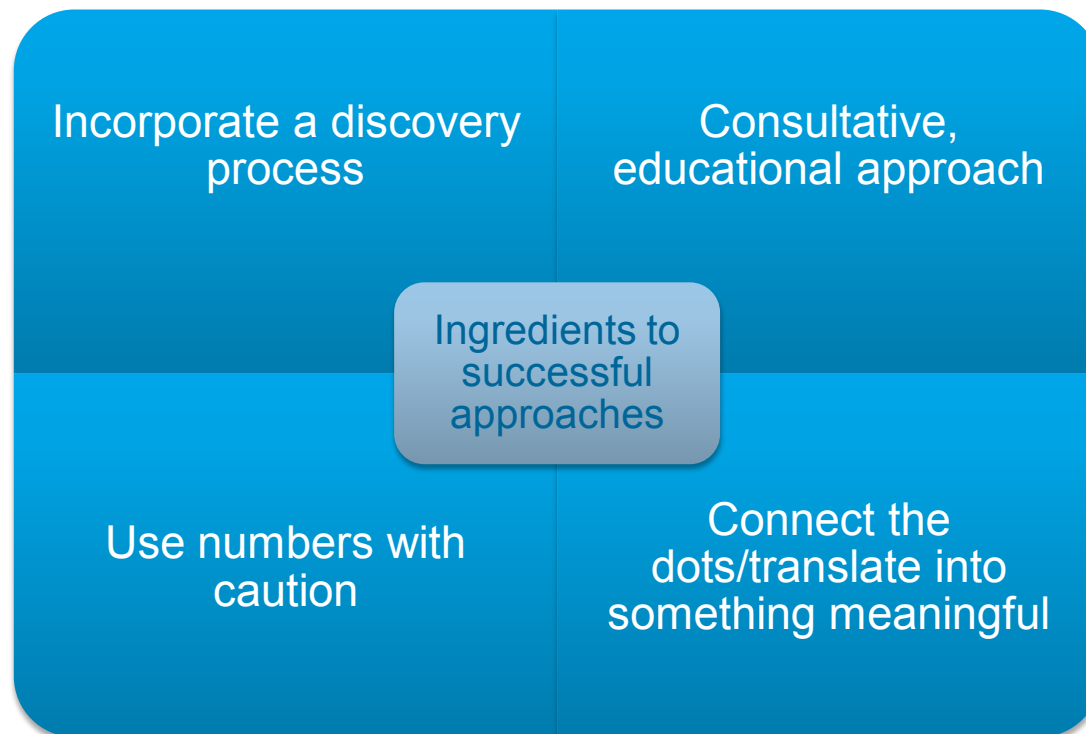
- **Kitchen remodeling was frequently cited as another opportunity for insulation upgrades**
  - Benefits are typically positioned more on comfort and efficiency than on dollar savings off of utility bills
  - Homeowners will often decide to upgrade insulation in other areas of the house after experiencing the difference in the room that was upgraded
- **Other energy efficient upgrades cited by the remodelers/builders included:**
  - Air sealing
  - Windows
  - HVAC
  - Tankless water heaters
  - Technology such as lighting control, HVAC control
  - Appliances

Some remodelers/builders consider insulation and windows to be the easiest and most cost-effective upgrades because consumers can more readily notice a benefit

## Energy efficiency is rarely the driver of the remodeling projects

- **None of the remodelers/builders go in with the primary purpose of the project being to upgrade the home in terms of energy efficiency**
  - One remodeler/builder did share that in his entire region he only knew of one remodeler who has truly embraced energy efficient upgrades as a business focus. This remodeler does not go through a traditional project bid process, but rather goes out to the home and does an energy analysis and then puts a package together for the homeowner. Much of the remodeler's success has come from educating the consumer through the sales process.
  - Another remodeler/builder cited the example of remodelers/builders in his area getting into window & door replacement or insulation upgrades driven by the electric company; however, he considered those weatherization projects, not remodeling projects.
- **The remodelers/builders tend to think of energy efficient upgrades as a business practice rather than viewing it as a specific business opportunity**
  - Their mindset and approach is to evaluate the opportunities within the context of the remodeling project rather than to specifically pursue energy efficient upgrade projects.
  - Remodelers/builders who incorporate energy efficiency upgrades as a standard part of the building approach know that they are going to do whatever they can on each project anyway; therefore, they don't perceive a need to focus primarily on energy efficiency to generate business.
  - Other remodelers/builders believe that the greatest potential for offering energy efficient upgrades comes after they have spent some time in the house and become familiar with it, and familiar with the homeowners themselves.
    - This gives them the opportunity to more fully assess the needs
    - It also gives them the opportunity to build trust and confidence with the homeowners

Pathways to energy efficiency vary; however, several key ingredients to successful approaches were revealed



## Key ingredients to successful approaches

- **Incorporate a “discovery” process to better understand clients, their values and their lifestyles**
  - Sitting down and talking with them and getting to know them helps the remodelers/builders to better identify how best to position the benefits of energy efficiency upgrades to them
    - Simply asking what they do for a living can yield insight. For example: accountants, engineers and people who are more numbers oriented tend to respond best to facts and figures, seeing thing on paper, etc.
  - One remodeler/builder specifically asks clients where they are on the green building scale and tries to identify what really matters to them (e.g. savings on utility bills, more comfortable rooms, sustainability, saving the environment, etc.), then he positions the benefits accordingly.
- **Consult and educate homeowners throughout the sales process**
  - The remodelers/builders want their clients to value the knowledge and experience they bring to the table, and to trust in their recommendations.
  - They try to educate the homeowner as to implications of current state of the home, consideration factors, and benefits they can gain from the energy efficient upgrades.

*“All triggers for consumers fall into one of two categories – monetary or lifestyle”*

*“Let’s say we’re doing an addition over the garage and we have a separate [HVAC] system just for that. We’ll start the conversation of best use of the system and energy efficiency, discuss the age of their existing system and things to consider. We’ll let them talk to the heating subcontractor...” (Builder, DC)*

*“One thing I always talk about is air infiltration in the home and I try to put it on the customer’s level... The next thing I do is talk about duct work because most of our duct work is in the attic. If they haven’t had the ducts replaced in the last 8 years I tell them to go up in the attic, turn the air handler on and put their hands on the joints and they will feel the leakage. I tell them in a typical setting, we’re losing 25 – 30% of the air conditioning right in the attic through leakage in the duct work, so if I can reseal imagine what you could be saving on utility costs. Instead of telling them I’m going to reduce it by 30%, I’m going to tell them what their loss is and let them make up their own mind.” (Remodeler/Builder, TX)*

## Key ingredients to successful approaches (cont'd)

- **Connect the dots for the customers in terms of benefits they can gain from the upgrade → and recognize that what you emphasize depends on the project and the customer (i.e. it's not one size fits all)**
  - Position as an investment and demonstrate potential savings to show return on investment. Show how potential return compares to other types of investments, for example, CDs, or money markets.
  - If homeowners mention drafty rooms or rooms with different temperatures, emphasize gaining a more comfortable living environment
  - For women, highlight the benefits of having a cleaner house and less bugs as a result of air sealing

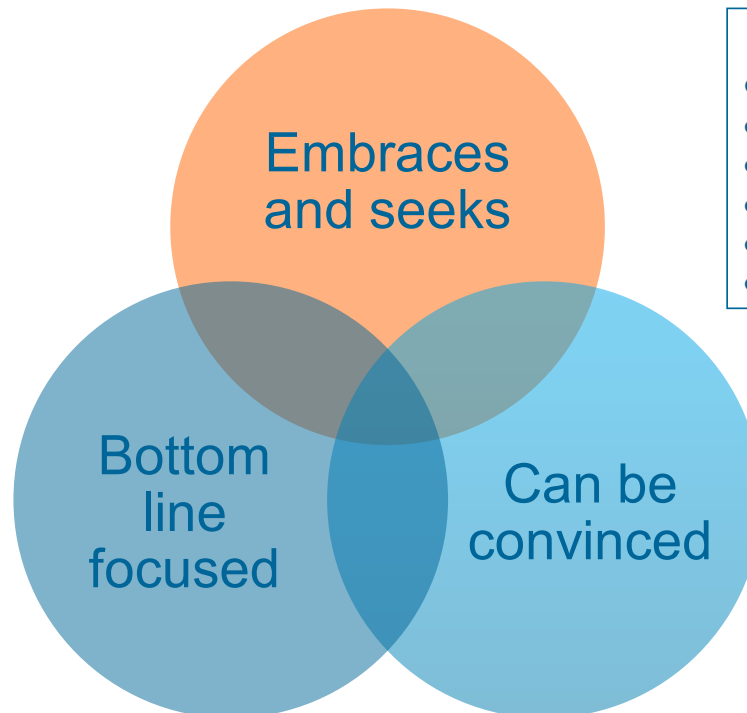
*"For example, I might say, 'you know, your grandmother comes and stays with you for x months. Insulating that room will make her more comfortable.'" (Remodeler/Builder, TN)*

- **Use numbers with caution**
  - Remodelers/builders have to find a balance between being able to demonstrate potential value and guaranteeing numbers. Giving examples and comparative ways of thinking about the investment works. Don't want consumers to come back and say "you promised I would save \$X"
  - One remodeler/builder uses an energy computer model from the DOE to generate reports that show clients their potential for energy savings if they incorporate various upgrades. He is able to give them a baseline estimate for their remodeling project then show several "what if" scenarios to demonstrate what the options are and the impact of different upgrades. This enables customers to make educated decisions.
  - Make sure if you use numbers, they are realistic numbers from a reliable source
  - Rather than throw out potential savings estimates, cultivate referrals where customers who have had upgrades done can share how they have benefited



## Remodelers/builders acknowledge that consumers fall into different buckets in respect to energy efficient upgrades

- There were somewhat varying perspectives in terms of how the remodelers/builders bucket the consumers (i.e. benefits sought, lifestyle, mindset regarding remodel, etc.) however, no matter the criteria, consumers generally fall into one of three categories regarding energy efficiency.



### Types of Clues Used to Identify

- ⊗ What they do for a living
- ⊗ Age
- ⊗ Current lifestyle and habits
- ⊗ What they are seeking from their home
- ⊗ How long they intend to stay in the home
- ⊗ Reason for remodel

## Knowing what type of consumer they are working with enables remodelers/builders to identify how to position energy efficiency

- **Consumers who more readily embrace, or even actively seek energy efficiency often have some of the following characteristics:**
  - Tend to be younger and well educated
  - Are already incorporating some “green” practices in their lifestyle (i.e. driving a hybrid car, using energy saving appliances, interested in products and practices that contribute to sustainable living, etc.)
  - Have health issues (e.g. allergies, asthma, etc.) and are seeking a healthier living environment
  - Have already done some of their own research
  - Desire a better performing home
- **Those who can be convinced may or may not think about energy efficiency, but are open to the upgrades once they understand how it can benefit them**
  - Have committed to staying in their home for a longer period of time
  - Have a mindset of investing in their home to improve their quality of living
  - Tend to skew a little older
  - Are motivated by receiving benefits (e.g. more comfortable living environment, savings on utility bills, tax credits, etc.)
- **Those who are bottom line focused are typically easy to identify, and often exhibit some of the following characteristics:**
  - Price driven, so typically seek multiple bids and are looking for the lowest price
  - Remodeling to update and increase appraisal value on home
  - Don't intend to stay in home for a long period of time
  - Want to see numbers
  - Are focused on return on investment



*Often most difficult to convince*

## Remodelers/builders face several challenges to selling energy efficient upgrades

- **The influx of “hacks” going after remodeling business has polluted the industry**
  - Shifts consumer mindset to price rather than value, which can make consumers relate to energy efficient upgrades as a cost rather than an investment that can benefit them
  - “Joe in the pickup” remodelers often don’t educate consumers, provide apples to apples comparison of job scope when bidding, or provide the level of quality control needed, which can make qualified remodelers appear high priced

*“There is no best pathway, there’s a lot of different ways you can make a house more efficient. That’s another part of the struggle too, because when you’re starting at a different point with each existing home, you are fighting your ex-employees or the guy that got laid off at the mill who doesn’t understand the building science, and so there’s total lack of parity when it comes to energy efficiency.” (Builder, MT)*

- **Lack of appraisal value for energy efficient upgrades knocks the upgrades out of consideration**

- Consumers who are remodeling with the goal of updating the house for resale focus their dollars on upgrades that will add appraisal value and increase chances of selling the home.
- *“Everybody’s concerned about resale and evaluations of houses are down so they’re saying, ‘well, I’ll get money back from the kitchen, but if I make the house more energy efficient and it’s still got a 1975 kitchen in it, it’s not going to up the value’.” (Builder, MA)*
- For some consumers desiring an energy efficient home, it is often a better investment to purchase a new home that is energy efficient/green built than to try to remodel and create energy efficiency in the home they’re in.

*“What we do to make the home better – better insulation, better windows, etc. – we’re not getting the bang from the appraisers.”*  
(Builder, NC)

## Remodelers/builders face several challenges to selling energy efficient upgrades (cont'd)

- **Other challenges the remodelers/builders face:**
  - Lack of consumer education regarding energy efficiency, how the house performs, and what lifestyles and habits can impact energy consumption and savings
  - There are no incentives to the remodeler/builder to educate consumers or push for energy efficient upgrades
  - It is often difficult to get reliable data to show consumers and to educate them on potential energy savings



### **Remodelers/builders consider consumer education to be a key factor in being able to implement more energy efficient upgrades. Education needed:**

- > What contributes to energy efficiency and to inefficiency
- > Benefits that can be gained from the different types of upgrades
- > What they should be looking for in a remodeler, and what they should expect from the remodeler
- > How to understand the “payback” that can be gained from energy efficiency upgrades

## Many of the tools for success that remodelers/builders felt were needed centered around consumer education

- **Most all agreed that a brief educational piece that educates consumers about how to think about the house and about energy efficiency would be of value**
  - While some preferred having the video available online as part of a resource website, others preferred to have a DVD or pamphlet that they could give to consumers
  - Many of the remodelers/builders felt strongly that whatever the resource is, they need to be able to leverage it as a value that they are bringing to their customers, and that will help position them as a knowledgeable, trustworthy professional. Some felt that providing customers with a DVD helped to foster more interpersonal interaction between the remodeler/builder and consumer than did sending the consumer to a website.
  - The information should be easy to understand (“6<sup>th</sup> grade level”) and brief
  - Remodelers/builders also felt that the information should be educational and noncompetitive (as opposed to manufacturer sponsored or something that comes across as sales-oriented), and come from a national association or DOE.

*“But it’s a double-edged sword. If the customer goes to a website and gets educated, you start to devalue yourself and what you bring to the table in terms of knowledge and experience, and then it just becomes all about price.” (Remodeler, NJ)*

- **A few saw value in resource tools that the remodelers/builders could customize for their own use in educating customers**
  - For example, an newsletter that educates on energy efficiency that the remodelers/builders could customize and send out to clients and prospects

## Many of the tools for success that remodelers/builders felt were needed centered around consumer education

- **Some of the smaller remodelers/builders felt it would be beneficial to have a resource that they could go to get information to educate themselves, as well as to get information for the consumers, and to get marketing support**
  - Having to spend more time back in the field has reduced the amount of time they have to research and find information on their own
- **Another tool that many felt would be useful is some type of cost/benefit analysis that they could show to customers**
  - Be able to calculate potential savings based on their specific area, and what the period might be to start realizing savings
  - A method of demonstrating the payback and how it might increase the value of the home. For example there are charts that you can find on the Internet that show what impact a kitchen or bath remodel or adding a swimming pool has on the value home. If there was something similar for energy efficiency, even if appraisal issues prevent tying into overall home value. For example, instead being able to demonstrate energy savings or increase in comfort or healthier living environment.
- **The remodelers/builders also desired something that would help consumers be able to distinguish between an experience, knowledgeable qualified contractor and those who are not**
  - They struggled, however, in identifying what that might be. While they agreed in the importance of certification and licensing, they did not feel that consumers would take the time to investigate and check qualifications.
  - A few did believe that some type of referral source that listed qualified remodelers might be of value if promoted properly to consumers

## Energy Efficiency: Tools for Success

### The remodelers/builders were somewhat resistant to tools or resources to help them profile customers and talk to them

- **Most have found their own way of reading customers and identifying their hot buttons and relate to this as part of the art of relationship building**
  - They shied away from “canned” approaches because that seemed to discount the experience and knowledge that they bring to the table and that they feel differentiates them
  - They were more interested in information and resources that could equip them/arm them and that they could utilize the way that fits best with their approach, versus something that was going to essentially tell them what to do
  - There was little perceived value in having consumers fill out “profiling” questions in advance because the remodelers/builders feel that the discovery process they use to find out the information is part of their art
- **Some would find benefit, however, in a “pathways” checklist or reference piece that could be used to identify opportunities and things to emphasize to different types of customers**
  - For example, homes built before certain dates probably don’t have much insulation → opportunity to recommend adding insulation based on need
  - Ask the homeowner if they’ve noticed any temperature variances throughout the house → opportunity to talk about the comfort benefits of upgrading insulation and air sealing
  - Ask how long they intend to stay in the house → position benefits of doing upgrades now while the contractor is there versus having to have someone come back in down the road

## Conclusions

- **The slowdown in new construction and economic climate has shifted greater to focus to existing homes and to remodeling.**
  - More consumers are staying in their homes and deciding to upgrade, and many builders are turning to remodeling work to supplement their business.
  - However, the lending restrictions, lack of appraisal value on energy efficient upgrades and the flood of individuals into the remodeling arena has created a very competitive, price sensitive market.
- **Qualified remodelers and builders strive to differentiate themselves based on experience, knowledge and customer service, in addition to quality building practices**
  - Anything that can help differentiate them from the “hacks” and convey to the consumer the value of what a experienced, qualified remodeler/builder brings to the table would be appreciated.
  - Any tools provided should help position the remodeler/builder as the expert and serve to build trust and confidence among consumers.
- **Information sources that remodelers/builders could use to demonstrate ROI or provide a cost/benefit analysis for energy efficient upgrades would be valued**
  - Include an energy audit that assesses current energy consumption and lifestyle
  - Demonstrate to consumers potential savings or “payback” they could realize if they make various upgrades; connect the dots in terms of upgrades and real world benefits
- **Finally, educating remodelers/builders themselves as to best practices and approaches and help to motivate**
  - Remodelers/builders who have conviction that energy efficient upgrades are “the right way to build” are the ones who tend to have more success implementing. Their approach comes across as a knowledgeable recommendation with the consumer’s best interest in mind rather than a sales attempt with the remodeler’s/builder’s financial interest in mind.



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## **Appendix B    Qualitative Market Research—Energy Efficient Upgrades in Remodeling Exploration of Gaps and Potential Solutions**

*(second set of remodeler focus groups)*

# **Energy Efficient Upgrades in Remodeling – Exploration of Gaps and Potential Solutions**

## ***Qualitative Research Key Points Summary***

**NAHB Research Center  
Upper Marlboro, MD**

**Prepared for:**

***The NAHB Research Center Industry Partnership  
as part of the  
U.S. DOE Building America Program***

**June, 2011**

## Objectives and Methodology

The purpose of the research was to explore current practices related to energy efficient upgrades in the remodeling business in order to identify ways to help remodelers successfully increase sales of energy efficient upgrades. Results will be used to develop quantitative research.

- **Specific objectives were to:**
  - Build on previous qualitative research by delving further into gaps and specific solutions that would be helpful for stimulating growth
  - Identify tools that could benefit contractors/builders in positioning and selling energy efficient upgrades to homeowner
- **Two focus group discussions were conducted among remodelers attending the NAHB Spring Board Meetings. Groups were conducted at the NAHB Research Center.**
  - Participants represented different markets/climates (AK, GA, IA, IL, MD, MN, OR, PA, TN, VT); all were President or Vice President of the company
  - Average number of projects per year for most ranged from 7 to 45; two average 100 projects per year; average value ranged from \$6k to \$250k
  - Participants regularly incorporate a variety of energy efficiency in whole-house gut rehabs and other remodeling projects and consider a number of upgrades including:

- ⑩ Appliances
- ⑩ Windows
- ⑩ Insulation
- ⑩ HVAC
- ⑩ Solar panels
- ⑩ Other



# Summary of Key Findings

## This research confirmed much of what was learned during the Phase I qualitative research conducting in January 2011

### Competitive market climate



- Limited dollars for projects; consumers scrutinize dollars carefully; energy efficient upgrades usually not a priority
- Unprofessional individuals muddy the market, undercut on price

### Approach to energy efficient upgrades



- Identify opportunities once involved in the project; energy efficient upgrades not the impetus for projects
- Listen for cues from homeowner
- Approaches rooted in overall business philosophy
- Prefer advising/recommending vs “selling”
- Desire to be perceived as the knowledgeable professional, to build trust and confidence

### Perspective of growth opportunity



- Believe there is potential for growth
- Struggle to identify “tools” that could help them
- Major deterrents to growth are: education/perceived value, appraisals, financing

## Current approach

### The remodelers look for energy efficient upgrade opportunities as part of their approach to doing their job well

- **None have projects where the primary purpose is energy efficient upgrades, but rather identify things that are needed or could be done once they get into the project**
  - They stress that the focus first and foremost is on the reason the homeowner contacted them (e.g. kitchen or bath remodel, addition, etc.)
  - Consistently stress that they need to get in and get a feel for the home, and for the homeowners' needs and priorities, before making any energy efficiency upgrade recommendations
  - Some automatically incorporate appropriate upgrades under their business approach (e.g. "this is the way we do business")

*"I've learned that no matter what the problem, you have to first address what they've called you about. When you are in the course of that conversation, they become more comfortable with you, then they start opening up more and throw out hints." – GA Remodeler*

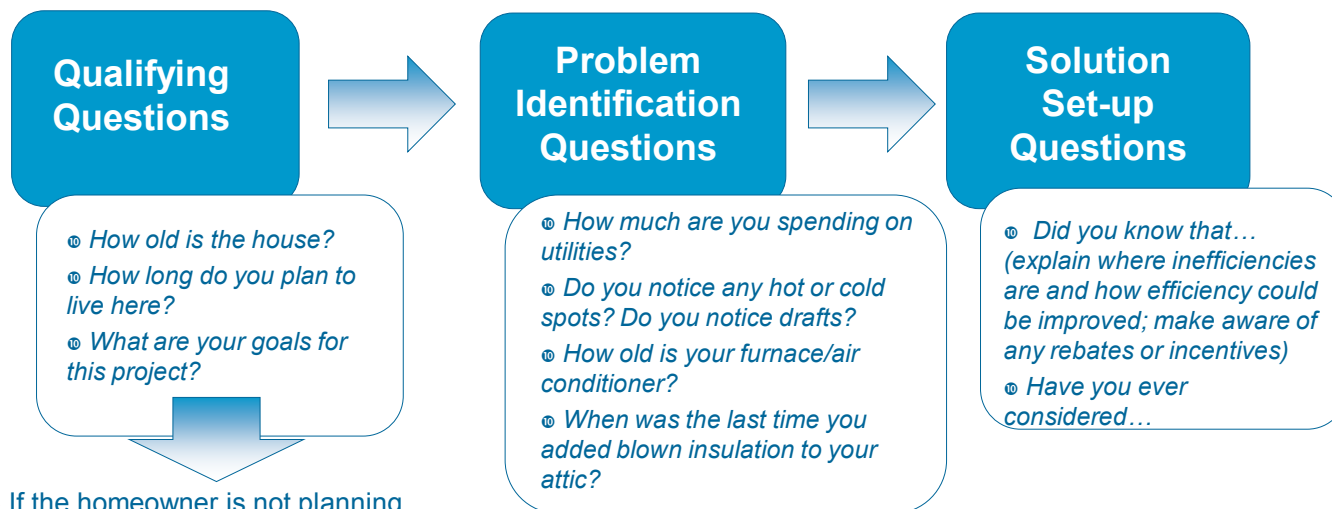
- **Remodelers do not want to come across as "selling," but rather recommending solutions based on their professional expertise**
  - Dollars are tight and the market is competitive, so they do not want homeowners to feel like the remodeler is tacking on costs or just trying to sell them something they don't really need
  - It is critical that the homeowner relate to the energy efficient upgrades as a solution that will be of value to them → fosters acceptance, but also strengthens perceived value of the remodeler
  - Most are more comfortable advising than trying to convince; some don't want to take the time to educate the homeowner about energy efficiency

*"He's right. If they don't get it, it is not worth our time to educate them in the way they need to be educated to make those kind of decisions." – OR Remodeler*

## Developing pathways

### Homeowners must recognize that there is a “problem” before they can see value in the energy efficient upgrade solution

- Asking key questions can identify needs/opportunities and help set up solutions



- > If the homeowner is not planning on staying in the house more than 3-5 years, they typically won't invest in energy efficient upgrades because they don't add appraisal value
- > Older people are becoming more receptive and recognize benefits (financial, comfort); tend to plan to stay in their homes longer

*“If you can get them to recognize a problem, you can sell them a solution. But if they don't recognize the problem, it's very difficult because you are not solving any issue they have” – MN Remodeler*



## Successful approaches

### Ingredients to successful approaches: establish the need, educate as to solutions

#### Incorporate a discovery process

- Ask questions
- Listen for hot buttons

Identifies  
pathway for  
positioning

#### Use a consultative/educational approach

- Provide factual information
- Recommend an energy audit; blower door tests (3<sup>rd</sup> party → legitimizes need, validates)
- Identify problems and solutions

#### Connect the dots/translate into something meaningful

- Position solutions in terms of benefits meaningful to homeowner (e.g. comfort, lower energy bills, more predictable bills, more cost effective to upgrade now, better indoor air quality, etc.)

#### Use numbers with caution

- Use numbers to educate/inform, not promise
- Create realistic expectations; advise as to how to maximize potential

The spray foam and propane industries were cited as having done a good job at educating and connecting the dots

## Factors that encourage upgrades

### Factors that help stimulate energy efficient upgrades reinforce the idea that the upgrades are beneficial

- **Blower door tests are one of the most common ways of demonstrating both the need and the benefit of a solution to homeowners**

- It is a quantifiable measure that can substantiate the need.
- It is a standard, accepted measure within the industry.
- Pre- and post-test comparisons validate the work, demonstrate a difference.
- *In Vermont, Vermont Gas pays the contractor based on amount of savings gained in the house, based on blower door tests. Provides a cash incentive for contractors to do a better job insulating and air sealing.*
- *Georgia is planning to require blower door testing on all new homes, and on additions.*

However, while remodelers may recommend blower door testing, many homeowners will not do it because of the cost.

- **Some remodelers partner with energy audit companies**

- Remodeler can recommend that an energy audit be done
- Energy auditors provide independent audits and make recommendations to the homeowners as to what is needed to improve efficiency → can help foster credibility as to need and benefits
- Homeowner can then call the remodeler if they would like the work done

- **State and/or utility or non-profit programs can make it easier for homeowners to do the upgrades by offering rebates, low interest loans or other financial assistance**

- The state of Alaska offers a home energy rebate program, which rebates some of the cost of energy efficient improvements to existing homes (includes materials and contracted labor). The Alaska Housing Finance Corp. also offers low interest loans to assist homeowners with improvements.
- Vermont Gas offers free energy audits and will rebate 33 1/3% of the installed cost of the recommended measures, and provides a low interest loan for the balance.
- Efficiency Vermont, a private nonprofit organization, offers rebates and incentives to help homeowners make energy efficient improvements to their homes. Funding covers 30-40% of the cost.

These initiatives help to demonstrate the importance of energy efficient upgrades

7

## Factors that encourage upgrades

### Short-term government rebates or tax credits elicit mixed feelings

- **Government rebates or tax credits can stimulate specific types of energy efficient improvements (e.g. windows, doors, appliances, etc.)**
  - Provides a temporary boost in business for remodelers, particularly specialty remodelers
  - Makes it easier to convince homeowners to make certain upgrades
- **However, without the incentives many people won't upgrade because they don't perceive value**
  - Some remodelers believe that providing short-term incentives does not foster understanding of the true benefits of energy efficient upgrades; therefore, these programs do not provide long-term benefit
  - The national deficit also creates concern about government funded programs to subsidize energy efficient upgrades

*"Often times the reason people don't do the upgrades is because they don't see value in it. I agree that without the incentives, people don't want to do it, which tells me that energy efficient upgrades are not yet market driven. As long as they are being subsidized at some level, we'll probably have an issue because at some point that money is going to dry up." – OR Remodeler*



Successful programs convey commitment, educate consumers as to "why" and "how," and establish a reason to believe.



Programs that are short-term or limited-time incentives are not as effective because when the money runs out so does homeowner interest.

## Challenges

### A number of factors make it challenging to implement energy efficient upgrades in more existing homes

#### Nature of remodels

- > Every project is different so difficult to implement a standard approach
- > Typically focusing on one area of the home, not the whole house; difficult to gain maximum benefit of energy efficiency
- > Goal of project is almost always something other than energy efficient upgrades

#### Homeowner mindset

- > Often don't see the need or value
- > Focus is on "their project"/why they called the contractor; difficult to get them to think about other areas of the house (not interested, seems like adding on expense)
- > Aesthetic upgrades/renovations are exciting and can be shown off, but energy efficient upgrades don't provide the "wow" factor

#### Cost

- > Typically an out-of-pocket expense for homeowner; prefer to allocate budget to "seen" upgrades; energy efficient upgrades often first to get cut from budget
- > Many homeowners don't want to pay for blower door tests
- > **Do not get appraisal value for energy efficient upgrades**
- > **Often can't get loans or credits to do the upgrades**
- > Upfront cost can be greater than savings (i.e. no financial ROI)
- > If gas/electric prices are inexpensive, homeowners won't "feel the pain" and be motivated to upgrade

Sends a signal that it is not important

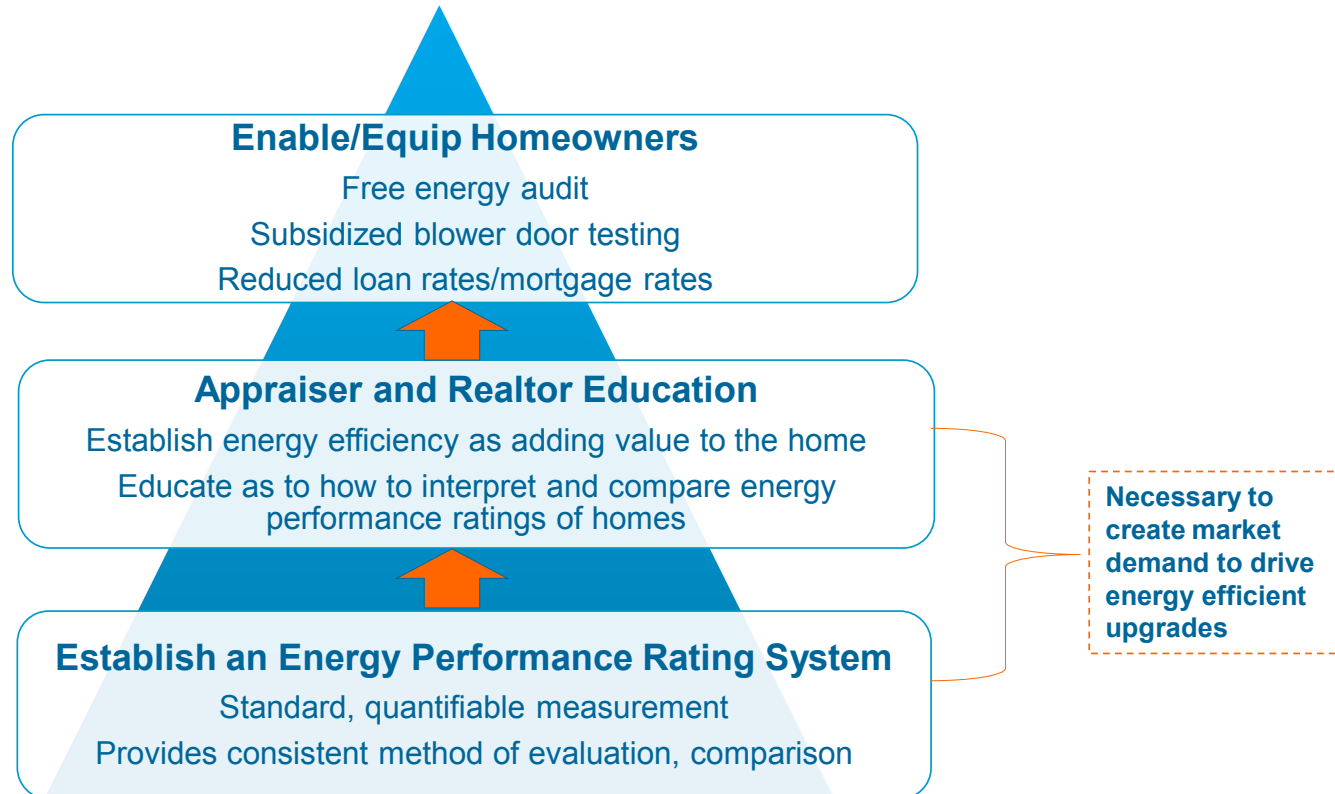
#### Lack of education

- > Homeowners often don't perceive a problem and therefore do not understand benefits
- > Homeowners tend to perceive as an expense rather than as an investment
- > Appraisers don't understand how to value upgrades
- > Realtors need to be educated to help potential buyers understand the value

## What is needed for growth

### Remodelers believe three fundamental things are needed to stimulate widespread growth of energy efficient upgrades

- The bottom line is that energy efficiency needs to be tied into the perceived “value” of the home so that improved energy efficiency is recognized as a value-add



## Establishing an energy performance rating system for existing homes is considered an important starting point

- **The rating system should be designed so that consumers can make educated decisions about the houses**
  - Should be established as a basis of comparison, not a requirement to bring the house to a minimum standard
  - Would provide a uniformly accepted means of:
    - Assessing where a house is (baseline) and where it could be with improvements. It should include guidelines/recommendations for what could be done to improve efficiency rating.
    - Comparing homes – becomes a decision factor in the home buying process
- **Energy efficiency audits to rate the homes should be established as a norm, similar to the way home inspections have been instituted as part of the sales process**
  - One of the best means of getting the energy audit process rooted
  - Helps to establish the importance of improving energy efficiency of existing homes
- **Educating appraisers and realtors is the next key component that is needed**
  - They need to understand the energy performance scores and the value that energy efficiency adds to a home, and be able to easily explain it to home buyers
  - Both should embrace the importance of having the energy performance scores
  - Making it easy and/or mandatory to become educated will be important for facilitating adoption within both the real estate and appraisal industries
  - Being able to get increased appraisal value for energy efficient upgrades will help to shift homeowners' mindset from "cost" to "investment"

## Barriers to both assessing energy efficiency and to implementing upgrades need to be lowered for homeowners

- **Homeowners have to perceive a need for, and a benefit to, making energy efficient upgrades**
  - Lowering the cost burden through free energy audits and/or subsidizing blower door tests can motivate homeowners to assess their home's energy efficiency, which increases understanding of the need for upgrades
    - *Makes it easier for homeowners to take that first step to understand the need*
  - Free or low cost energy audits/testing leaves homeowners more money to allocate to making the energy efficient upgrades (which benefits remodelers)
- **Reward homeowners and homebuyers for striving for more energy efficient homes**
  - Awarding point reductions in the mortgage interest rate for energy efficient homes would help make it worth it for homeowners/home buyers
    - *Helps to position energy efficient upgrades as an investment rather than a cost*
  - Offering low interest/no interest loans to make upgrades would enable homeowners to implement improvements
    - Awareness and education can be increased; however if homeowners can't afford to make the upgrades, it doesn't matter
  - By investing in energy efficient upgrades, homeowners can better manage monthly expenses and be in a little stronger position to pay their mortgage

Individual states are already making strides in some of these areas; however, there needs to be nationwide implementation, and increased consumer awareness of programs available

What is needed for growth

Encouragement of energy efficient upgrades is needed at multiple levels from multiple entities





## Tools that would benefit remodelers largely involve homeowner education

- **Homeowners need to be conditioned to think of increasing their home's energy efficiency as an investment rather than a cost**
  - Simple, straightforward information that enlightens homeowners as to where/how inefficiencies occur, and what the resulting implications are
  - Communicate benefits to homeowner of increasing energy efficiency
  - Perhaps position as "improvements" (implies beneficial gains) rather than "upgrades" (often associated with "more expensive")
- **Interactive resources such as software or a website that could project potential energy savings based on different types of improvements would be beneficial**
  - While some remodelers would want to use the tool themselves to demonstrate potential to homeowners, others would prefer resources that they could simply recommend to the homeowner to use on their own
- **Providing third party/independent information is considered important in order to add credibility**
  - Articles and information/facts from industry magazines, research institutions, Department of Energy
  - Region-specific information from state or local government, utility companies
  - Website sponsored by a credible, respected entity (e.g. Department of Energy, NAHB, Building Performance Institute)
  - Being able to recommend certified energy auditors
  - Having simple "Did you know?" materials that remodelers could provide to homeowners. Information should come from an independent source. Should be available in a variety of formats – printed, DVD, USB drive

## Collaborative referral programs would be beneficial to remodelers

- **Helping remodelers to establish relationships with others in the remodeling industry such as energy programs, energy auditors, utility companies, appraisers, lending institutions and other entities would be beneficial**
  - Auditors, lenders, etc. can refer remodelers when upgrades are needed
  - Some remodelers feel it is more beneficial for an outside entity (energy program, auditor, utility, lender, etc) to educate homeowners as to the need; therefore, this scenario enables them to stay focused on executing the solution
  - This will be particularly beneficial if an energy ratings system is implemented

*“We’ve partnered with an energy audit company and they’ve printed a tri-fold brochure that our estimators take out, typically to houses built before a certain date.... We’ve gotten about 5 – 6 jobs from them. They go out and do the audit, then the people call us to come do the work.” – IA Remodeler*

- **However, many of the remodelers were not keen on the idea of having a certified remodeler program for energy efficient upgrades**
  - Too many certifications already (BPI, HBI, HERS, contractor licensing, local certification, green certifications, etc)
  - Do not believe most homeowners understand or really care about certifications
  - A certification program may carry too many regulations/requirements

## Summary

- **Most of the remodelers believe there is definite growth potential for energy efficient upgrades; however, long-term success is dependent on upgrades becoming market driven**
  - Incentives that are based on improved home performance rather than specific products will have more long-term benefit because they broaden perspectives
  - Shifting homeowner mindsets to “performance” of the home better conditions them to understand the value of making energy efficient upgrades beyond the scope of their remodeling project
- **There are several points of frustration for remodelers:**
  - Perhaps the greatest source of frustration is homeowners not perceiving value in doing energy efficient upgrades
  - Another point of frustration is that it is difficult to get homeowners to think in terms of the home’s energy efficiency performance when they are focused on one specific area of the home for the remodel project
    - *“...they’ll do energy efficient upgrades to the basement when they are remodeling the basement, but ask them to think about the attic and they are thinking about the basement...” – MN Remodeler*
  - Cost barriers are also a pain point
    - Many homeowners don’t want to spend money on blower door tests or energy audits. Remodelers believe, however, that results of the audits/tests would demonstrate to homeowners that there is a problem.
    - Because costs are typically out of pocket for homeowners, they may not be able to afford the energy efficient upgrades, or they may cut the energy efficient upgrades from their budget in order to get more aesthetic upgrades.
    - The amount of savings on the monthly energy bill may not be worth the upgrade investment to homeowners.
    - Energy efficient improvements do not add appraisal value to the home; therefore, the improvements are viewed as a cost and homeowners looking to sell are not motivated to make the improvements.

## Summary

- **Homeowners need to perceive a “reason why” they should invest in the upgrades**
  - Motivators and hot buttons will vary; however, remodelers can identify pathways to positioning the upgrades by listening for cues and by asking homeowners specific questions during the beginning phases of the project
  - Predominant motivators for making the upgrades tend to be:
    - Reducing monthly energy bills
    - Having more predictable energy bills each month
    - Being able to maintain more even and/or comfortable temperatures within the home
    - Improving indoor air quality
  - Some homeowners are motivated by being more environmentally responsible (e.g. living green) and contributing to the conservation of our nation’s resources.
  - Helping homeowners to connect the dots between a problem and solutions is necessary for buy in
- **Remodelers don’t want to come across as “selling” but rather as recommending solutions that will benefit the homeowner.**
  - Equipping remodelers with key questions to ask, as well as key facts, can enable them to position themselves as knowledgeable professionals.
  - Educational information regarding energy inefficiency and its implications can help to create awareness among homeowners that there are issues that could be improved.
    - *Ex: Did you know that you could be paying 10 – 20% more than you should be in monthly energy costs because of leaky ducts, drafts, outdated heating & cooling systems or insufficient insulation?*
  - Industry information from a 3<sup>rd</sup> party source (e.g. Department of Energy, NAHB, etc.) adds credibility. Energy saving tip sheets or “Did You Know?” informational pieces that remodelers could give homeowners would help to create receptivity, and to build confidence in the remodeler.

## Summary

- **Most remodelers agreed that the most beneficial things for stimulating growth of energy efficient upgrades would include:**
  - Development of an Energy Performance Scores rating system for existing homes, which is implemented nationwide
  - Establishing appraisal value for energy efficient upgrades
  - Realtor education as to value energy efficient upgrades bring, and how to sell the features
  - Points off mortgage interest for energy efficient upgrades
- **For remodelers, the following “tools” would be of value:**
  - Informational/educational resources to shift consumer thinking to home performance, increase understanding of problems, understand benefits of various types of upgrades, etc.
    - Website, DVD, printed materials
  - Consumer campaign to increase awareness and understanding of the value of energy efficient upgrades (done by government, utilities, etc.)
  - Free/low cost energy audits for homeowners
  - Key questions to ask in order to identify opportunities, position benefits to homeowners
  - Means of quantifying impact of energy efficient upgrades (e.g. pre/post testing, energy savings calculators, etc.)
  - Connecting remodelers with energy auditors so they can develop a referral network

**NAHB Research Center**  
**400 Prince George's Blvd.**  
**Upper Marlboro, MD 20774**  
**800-638-8556**



## **Appendix C Quantitative Market Research—Building America Remodelers Start-Up Kit**

*(quantitative market research with remodelers based on the focus groups)*

### **BUILDING AMERICA START-UP KIT – REMODELERS QUANTITATIVE MARKET RESEARCH**

*Results Overview*

*Prepared for*

U.S. DOE Building America Program

*Prepared by*

NAHB Research Center, Inc.  
400 Prince George's Boulevard  
Upper Marlboro, MD 20774

October 3, 2011

<p><b>Background</b></p>	<p>The U.S. Department of Energy's (DOE) Building America program is engineering the American home for energy performance, durability, quality, affordability, and comfort.</p> <p>Building America is an industry-driven research program working with national laboratories and building science research teams to accelerate the development and adoption of advanced building energy technologies and practices in new and existing homes. The program works closely with industry partners to develop innovative, real-world solutions that achieve significant energy and cost savings for homeowners and builders.</p> <p>As part of a multi-pronged approach the DOE has determined that the professional remodeling industry can advance its overall efforts.</p>
<p><b>Purpose</b></p>	<p>The purpose of this research is to quantify and prioritize the support needs of professional remodelers to increase sales and projects involving improving home energy efficiency. This phase of the research builds upon the qualitative remodeler focus groups, conducted at IBS and at the NAHB Research Center, to quantify and prioritize the support needs of professional remodelers to increase sales and projects involving improving home energy efficiency.</p>



**SAMPLE/COMPLETES/QUOTA PLAN**

**SAMPLE:**

First Choice: Home Builders Online Research Panel  
Second Choice: Mail

**COMPLETES:**

160 actual

**QUOTA:**

None

**ESTIMATED TIME:**

Screener: NC  
Survey: 5.0 min  
Feedback: NC  
Total: 5.0 min

**EMBED**

None

**SCREENER**

0.4 min

**PAGE**

State: Thank you for agreeing to take part in this survey. Your opinions are vital in helping us better understand the home-improvement industry. Be assured that all of your responses will remain confidential. This survey should take approximately 5 minutes to complete.

S1 (0.1) Which of the following best describes the work you do? **[ACCEPT ONE ANSWER]**

- [1] Custom new home building and remodeling
- [2] Production new home building **[TAGGED FOR TERMINATION]**
- [3] Remodeling only
- [4] General contracting, including remodeling and new construction
- [5] Specialty trades, including remodeling and new construction
- [6] Other **[TAGGED FOR TERMINATION]**

**PAGE**

S2 (0.1) Which of the following best describes your involvement in terms of selecting building materials for your projects? **[ACCEPT ONE ANSWER]**

- [1] I make the final decision regarding the building materials we use.
- [2] I share the responsibility of making the final decision regarding the building materials we use.
- [3] I am not responsible for making the final decision, but I do influence the selection of building materials we use.
- [4] I am not responsible for making the final decision and I do not influence the selection of building materials we use. **[TAGGED FOR TERMINATION]**

**PAGE**

S3 (0.1) Which of the following do you consider your company to be? **[ACCEPT ONE ANSWER]**

- [1] Remodeling General Contractor
- [2] Specialty Contractor **[TAGGED FOR TERMINATION]**
- [3] Home builder that also does remodeling general contracting
- [4] Other type of contractor **[TAGGED FOR TERMINATION]**

PAGE	
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S4 (0.1)

Which state/territory do you do most of your building and/or remodeling work?

**[ACCEPT ONE ANSWER, SCROLL DOWN LIST]**

- [1] Alabama
- [2] Alaska
- [3] Arizona
- [4] Arkansas
- [5] California
- [6] Colorado
- [7] Connecticut
- [8] Delaware
- [9] District of Columbia
- [10] Florida
- [11] Georgia
- [12] Hawaii
- [13] Idaho
- [14] Illinois
- [15] Indiana
- [16] Iowa
- [17] Kansas
- [18] Kentucky
- [19] Louisiana
- [20] Maine
- [21] Maryland
- [22] Massachusetts
- [23] Michigan
- [24] Minnesota
- [25] Mississippi
- [26] Missouri
- [27] Montana
- [28] Nebraska
- [29] Nevada
- [30] New Hampshire
- [31] New Jersey
- [32] New Mexico
- [33] New York
- [34] North Carolina
- [35] North Dakota
- [36] Ohio
- [37] Oklahoma

[38] Oregon  
[39] Pennsylvania  
[40] Rhode Island  
[41] South Carolina  
[42] South Dakota  
[43] Tennessee  
[44] Texas  
[45] Utah  
[46] Vermont  
[47] Virginia  
[48] Washington  
[49] West Virginia  
[50] Wisconsin  
[51] Wyoming  
[52] I do not do remodeling work in the United States **[TAGGED FOR TERMINATION]**

**Climate Zone 1:** [12] Hawaii

**Climate Zone 2:** [10] Florida, [19] Louisiana, [44] Texas

**Climate Zone 3:** [25] Mississippi, [1] Alabama, [3] Arizona, [37] Oklahoma, [41] South Carolina, [5] California, [4] Arkansas, [11] Georgia, [34] North Carolina

**Climate Zone 4:** [47] Virginia, [18] Kentucky, [21] Maryland, [26] Missouri, [8] Delaware, [38] Oregon, [48] Washington, [17] Kansas, [9] District of Columbia, [31] New Jersey, [43] Tennessee

**Climate Zone 5:** [22] Massachusetts, [7] Connecticut, [40] Rhode Island, [36] Ohio, [16] Iowa, [28] Nebraska, [45] Utah, [23] Michigan, [6] Colorado, [14] Illinois, [15] Indiana, [29] Nevada, [32] New Mexico, [39] Pennsylvania, [49] West Virginia

**Climate Zone 6:** [27] Montana, [42] South Dakota, [24] Minnesota, [50] Wisconsin, [46] Vermont, [20] Maine, [13] Idaho, [30] New Hampshire, [33] New York, [51] Wyoming

**Climate Zone 7-8:** [2] Alaska, [35] North Dakota

**[END OF SECTION INSTRUCTIONS: RESPONDENT MUST MEET QUOTAS/REPRESENTATIVE SAMPLE TO CONTINUE.]**

Q1 Which of the following jobs does your remodeling company or division perform?

**Select all that apply.**

[1]=Selected, [BLANK]=Not Selected

	Count
Q1_1 Interior renovation	127
Q1_2 Kitchen or bathroom remodels	129
Q1_3 Room additions or sunrooms	127
Q1_4 Home exterior renovations	113
Q1_5 Converting basement, attic, porch, or garage into finished living space	107
Q1_6 Outdoor structures or landscaping	112
Q1_7 Attached or detached garages, shops, barns, or outbuildings	110
Q1_8 Other types of projects	50
<i>n=160</i>	

Q2 How important has it been to your recent clients to achieve the following?

**Note: For "Other", if you have nothing in mind, select "Not at all Important"**

[1]=Not at all Important

[10]=Extremely Important

	Mean
Q2_1 Improving comfort for the homeowners	7.7
Q2_3 Increase living space, such as a room addition or finishing an attic or basement	7.5
Q2_5 Saving energy	7.5
Q2_2 Maintenance and repair of the home	7.3
Q2_7 Cosmetic work or new interior/exterior finishes	7.3
Q2_4 Change the layout of the existing living space	6.8
Q2_6 Increasing or improving safety and preparedness	5.7
Q2_8 Other (please specify)	3.1
<i>n=160</i>	

Q3 What percentage of your recent clients fit into the following groups when it comes to accepting energy efficient upgrades?

***The total must equal 100%.***

	Mean
Q3_1 Bottom line focused - will not spend any more than they have to.	40.4%
Q3_2 Can be convinced - may or may not think about energy efficiency, but are open to the upgrades once they understand the benefits.	38.8%
Q3_3 Embraces, or actively seeks, energy efficiency.	20.8%
Total	100%
<i>n=160</i>	

***Narrative: According to remodelers, nearly 21% of their clients actively seek energy efficiency upgrades during a home remodeling project. Another 39% said their clients are open to the idea of energy efficiency upgrades.***

Q4 When working with clients, which of the following statements most closely describes your company’s approach to energy efficient upgrades?

	Freq.
[1] We do not try to sell or offer energy efficient upgrades unless they are specifically asked for by the client.	6.4%
[2] We offer or recommend it when the energy efficient upgrade is cost effective and is directly related to the home improvement project.	50.6%
[3] We believe energy efficient upgrades are part of “doing it the right way” and incorporate this into as many remodeling jobs as possible.	42.9%
Total	99.9%
<i>n=160</i>	

***Narrative: Forty-three percent (43%) of remodelers follow the approach of incorporating energy efficiency into as many jobs as possible.***

Q5 There are many challenges to selling home energy upgrades. If you only had \$100 to invest, how much would you spend to **solve** each of the following challenges to increase your company’s ability to sell energy efficiency upgrades?

Again, you can allocate the money to as many or as few challenges as you want.

***The total must equal \$100.***

		Mean
Q5_1	Home energy efficiency upgrades are not clearly reflected in a home’s resale or appraised value.	\$29.04
Q5_4	Clients do not understand the full range or do not value the benefits of energy efficiency.	\$28.76
Q5_3	Energy efficiency financial incentives from utilities and various government agencies are hard to learn about, apply for, and comply with in order for the client to be reimbursed.	\$23.65
Q5_5	Consumers don’t know how find a qualified and competent contractor for providing energy efficiency upgrades.	\$12.12
Q5_2	My sale representatives/tradesmen are unfamiliar with selling home energy efficiency upgrades beyond what the client requests.	\$6.43
<b>Total:</b>		<b>\$100.00</b>
<i>n=160</i>		



**Q6a Home energy efficiency upgrades are not clearly reflected in a home’s resale or appraised value**

How much of a barrier do you feel each of the following are to your company’s ability to sell energy efficiency upgrades?

[1]=A Very Low Barrier, [5]=A Very High Barrier

<b>Section Issues sorted by Importance (Importance Score Mean) to Remodelers</b>		Mean	Importance Score Mean
Q6a_1	Appraisal values factor into what type of remodels clients are willing to undertake, and energy efficiency is difficult to value.	3.9	120.4
Q6a_2	Realtors, who are in contact with homeowners as they buy/sell homes, aren’t able to describe the value of energy efficiency.	3.8	113.7
Q6a_3	There is no standard way to compare a home’s energy efficiency when buying or selling an existing home.	3.6	103.3
<i>n=160</i> <i>Importance Score=(Respondent Q5_1 \$ amount * Respondent Q6a_x Rating). The higher the Importance Score the more important the issue is to remodelers.</i>			

***Narrative: The purpose of these questions is to quantify and prioritize the support needs of professional remodelers to increase sales and projects involving improving home energy efficiency.***

Q6b

**My sale representatives/tradesmen are unfamiliar with selling home energy efficiency upgrades beyond what the client requests**

How much of a barrier do you feel the following are to your company’s ability to sell energy efficiency upgrades?

[1]=A Very Low Barrier, [5]=A Very High Barrier

<b>Section Issues sorted by Importance (Importance Score Mean) to Remodelers</b>		Mean	Importance Score Mean
Q6b_1	There are few business benefits to me for offering energy efficiency upgrades. Normally the budget for a remodel is fixed and dollars spent on more expensive products do not help a project’s bottom line.	3.0	20.5
Q6b_4	As a company we want to come across as advisors or consultants, not as sellers of home upgrades. The client needs to feel like we are doing them a favor and not trying to sell them add-ons. Offering energy efficiency when customers are looking for something else may jeopardize the sale.	3.1	20.3
Q6b_3	My sales representatives can’t or won’t estimate the dollar savings for energy efficiency upgrades. It is too difficult to reliably predict savings and the representative does not want to be accountable for misestimating.	3.0	20.1
Q6b_6	There is a need to spend a significant amount of time in a house to assess its potential for energy upgrades. This would require a change from a consultative approach to selling energy upgrades.	3.0	19.4
Q6b_5	My sales representatives don’t know how to describe the value of energy efficiency upgrades in meaningful terms (payback or increase in value of home versus other things like more comfort, fewer insects and dust). The approach varies depending on the homeowner’s intended length of tenure or desired functions of home.	2.7	19.2

Q6b_2	Selling energy efficiency is typically part of a business' positioning and not an add-on. Those who pursue energy efficient positioning also go environmentally friendly (green), and that positioning may not work for my business.	2.7	18.9
Q6b_7	We don't know how to assess a home or a project for the most cost-effective energy upgrades.	2.5	17.8
<i>n=160</i> <i>Importance Score=(Respondent Q5_1 \$ amount * Respondent Q6b_x Rating). The higher the Importance Score the more important the issue is to remodelers.</i>			

Q6c

**Energy efficiency financial incentives from utilities and various government agencies are hard to learn about, apply for, and comply with in order for the client to be reimbursed**

How much of a barrier do you feel the following are to your company's ability to sell energy efficiency upgrades?

[1]=A Very Low Barrier, [5]=A Very High Barrier

<b>Section Issues sorted by Importance (Importance Score Mean) to Remodelers</b>		Mean	Importance Score Mean
Q6c_4	No coordinated efforts between the federal government, state government, and utilities when it comes to offering, applying for, and complying with energy efficiency incentive programs.	3.5	86.8
Q6c_1	Financial incentives are too small for energy upgrades.	3.5	86.5
Q6c_2	The incentive options need to expand to programs including reduced mortgage rates or availability of inexpensive financing for upgrades.	3.4	85.8
Q6c_3	Homeowners are unable to get financing to include the original remodel project and the additional cost of any energy efficiency upgrades.	3.5	80.6
<i>n=160</i> <i>Importance Score=(Respondent Q5_1 \$ amount * Respondent Q6c_x Rating). The higher the Importance Score the more important the issue is to remodelers.</i>			

**Q6d Clients do not understand the full range or do not value the benefits of energy efficiency**

How much of a barrier do you feel the following are to your company’s ability to sell energy efficiency upgrades?

[1]=A Very Low Barrier, [5]=A Very High Barrier

<b>Section Issues sorted by Importance (Importance Score Mean) to Remodelers</b>	<b>Mean</b>	<b>Importance Score Mean</b>
Q6d_1 Clients are typically unable to discern between high quality and low quality construction at the bidding phase. Often they select the lowest cost bidder. This makes selling upgraded energy efficiency difficult.	4.1	118.3
Q6d_2 Homeowners want to see tangible differences, often focusing on aesthetics or functionality, which makes energy efficiency a difficult sell.	3.6	102.3
Q6d_5 One popular way to determine airtightness, a blower door test, is expensive and most clients are not willing to pay for just an evaluation.	3.4	98.7
Q6d_3 Homeowners see energy efficiency upgrade costs as an expense and not an investment.	3.4	98.5
Q6d_4 Clients don’t understand the value of energy efficiency. They place little value on it. If consumers don’t see a problem, then they won’t purchase the solution.	3.3	95.7
Q6d_6 There is little real demand for energy efficiency. Homeowners are just following the money for rebates.	2.9	89.1
<p><i>n=160</i>  <i>Importance Score=(Respondent Q5_1 \$ amount * Respondent Q6d_x Rating). The higher the Importance Score the more important the issue is to remodelers.</i></p>		

**Q6e Consumers don't know how find a qualified and competent contractor for providing energy efficiency upgrades**

How much of a barrier do you feel the following are to your company's ability to sell energy efficiency upgrades?

[1]=A Very Low Barrier, [5]=A Very High Barrier

<b>Section Issues sorted by Importance (Importance Score Mean) to Remodelers</b>		Mean	Importance Score Mean
Q6e_1	Clients don't know how find a qualified and competent contractor for providing energy efficiency upgrades.	3.0	40.8
<i>n=160</i> <i>Importance Score=(Respondent Q5_1 \$ amount * Respondent Q6e_x Rating). The higher the Importance Score the more important the issue is to remodelers.</i>			

***Narrative: Remodelers believe their biggest obstacle to selling energy efficiency upgrades is that appraisal values factor into what types of remodels clients are willing to undertake. Other major obstacles include: clients unable to discern between high and low quality construction in the bidding phase; Realtors are not able to describe the value of energy efficiency; Difficulty in comparing existing homes on their energy efficiency; and that homeowners want to see tangible differences after a remodel, making it difficult to sell energy efficiency.***

<b>All Issues sorted by Importance (Importance Score Mean) to Remodelers</b>		Mean	Importance Score Mean
Q6a_1	Appraisal values factor into what type of remodels clients are willing to undertake, and energy efficiency is difficult to value.	3.9	120.4
Q6d_1	Clients are typically unable to discern between high quality and low quality construction at the bidding phase. Often they select the lowest cost bidder. This makes selling upgraded energy efficiency difficult.	4.1	118.3
Q6a_2	Realtors, who are in contact with homeowners as they buy/sell homes, aren't able to describe the value of energy efficiency.	3.8	113.7
Q6a_3	There is no standard way to compare a home's energy efficiency when buying or selling an existing home.	3.6	103.3
Q6d_2	Homeowners want to see tangible differences, often focusing on aesthetics or functionality, which makes energy efficiency a difficult sell.	3.6	102.3
Q6d_5	One popular way to determine airtightness, a blower door test, is expensive and most clients are not willing to pay for just an evaluation.	3.4	98.7
Q6d_3	Homeowners see energy efficiency upgrade costs as an expense and not an investment.	3.4	98.5
Q6d_4	Clients don't understand the value of energy efficiency. They place little value on it. If consumers don't see a problem, then they won't purchase the solution.	3.3	95.7
Q6d_6	There is little real demand for energy efficiency.	2.9	89.1

	Homeowners are just following the money for rebates.		
Q6c_4	No coordinated efforts between the federal government, state government, and utilities when it comes to offering, applying for, and complying with energy efficiency incentive programs.	3.5	86.8
Q6c_1	Financial incentives are too small for energy upgrades.	3.5	86.5
Q6c_2	The incentive options need to expand to programs including reduced mortgage rates or availability of inexpensive financing for upgrades.	3.4	85.8
Q6c_3	Homeowners are unable to get financing to include the original remodel project and the additional cost of any energy efficiency upgrades.	3.5	80.6
Q6e_1	Clients don't know how find a qualified and competent contractor for providing energy efficiency upgrades.	3.0	40.8
Q6b_1	There are few business benefits to me for offering energy efficiency upgrades. Normally the budget for a remodel is fixed and dollars spent on more expensive products do not help a project's bottom line.	3.0	20.5
Q6b_4	As a company we want to come across as advisors or consultants, not as sellers of home upgrades. The client needs to feel like we are doing them a favor and not trying to sell them add-ons. Offering energy efficiency when customers are looking for something else may jeopardize the sale.	3.1	20.3
Q6b_3	My sales representatives can't or won't estimate the dollar savings for energy efficiency upgrades. It is too difficult to reliably predict savings and the representative does not want to be accountable for misestimating.	3.0	20.1
Q6b_6	There is a need to spend a significant amount of time in a house to assess its potential for energy upgrades. This would require a change from a consultative approach to selling energy upgrades.	3.0	19.4

Q6b_5	My sales representatives don't know how to describe the value of energy efficiency upgrades in meaningful terms (payback or increase in value of home versus other things like more comfort, fewer insects and dust). The approach varies depending on the homeowner's intended length of tenure or desired functions of home.	2.7	19.2
Q6b_2	Selling energy efficiency is typically part of a business' positioning and not an add-on. Those who pursue energy efficient positioning also go environmentally friendly (green), and that positioning may not work for my business.	2.7	18.9
Q6b_7	We don't know how to assess a home or a project for the most cost-effective energy upgrades.	2.5	17.8
<p><i>n=160</i>  <i>Importance Score=(Respondent Q5_x \$ amount * Respondent Q6_x Rating). The higher the Importance Score the more important the issue is to remodelers.</i></p>			

Q7 Finally, are there any other tools or ideas you would like to see provided that you believe would increase your company's energy efficiency-related business?

If none, type 'None'.

Comment	Freq.
None	100
A big neon sign on the internet telling folks that Energy Efficient Building is the only way to build. And then send them to me. Cheers	1
a quick energy saver calculator	1
A single location to go to for info on rebate for energy efficiency-related business	1
Access to studies that show energy savings of certain types of upgrades that can be used as examples of cost savings to customers.	1
Already mentioned but more rebates offered on local, state and federal level	1
An easy way to compare comparable costs between contractors. Also a simple explanation of the current energy codes so customers can see where the costs are.	1
Appraisers must recognize the value of Green homes	1



Appraisals must reflect a homes annual energy cost	1
Better communication with PUC's	1
Better on line energy loss calculators. We sell on-line and let the customer decide on the RIO- a REMRATE program online from somewhere other than Alaska would make a big impact.	1
Better prices	1
Better regulatory requirements for energy efficiency. Most home owners are bottom line only	1
Bigger money incentives	1
Case studies House to house comparisons Long term studies on EE or Green products on home durability Information about what has NOT worked Regional data and specs	1
Clarify incentive offered thru manufacturers, energy suppliers and government. Make it easier to understand for the consumer and government should provide larger incentives for energy efficiency and Home Building in general.	1
Clients want guarantee of specific dollar amount saved in future utilities, ones energy efficiency built-in. There is no guarantee may be issued unless utilities providers are not going to secure prices (on per unit costs, such as per kwt. of electric or per cu. ft. of gas, etc.) and stop constantly rising prices.	1
Companies need to provide the construction personal a sample off all possible upgrades so they can show the homeowners what they look like, how they work so they can persuade the home owners to use these products. trying to explain and show how all the different products work is easier with real life working samples then a visual on a laptop or a pamphlet.	1
Deregulate government. the banks are not helping people who are seeking assistance or improvements	1
Easy method of determining the money savings one gets for upgrades in energy efficient practices	1
Easy to use energy calculation tools to help the design process would be a big help. If I could plug in a CAD model of a building, and indicate its orientation, shading, and climate (with micro-climate adjustments?) and then get details on energy consumption as I varied the SHGC of certain windows or the characteristics of the envelope, it would make it much easier to define a good cost benefit analysis.	1
Educate realtors and lenders on the benefits	1
free advertising	1

Gov needs to get the word out and give tax breaks so we can reduce energy waste	1
It's difficult in these economic times to spend a lot of time trying to up sell energy efficient items when they are beating us up on pricing as it is.	1
just more incentives	1
Low cost efficient contractor	1
lower cost on spray foam insulation	1
Made in America for Solar Panels and thin film PV systems at better costs are required. We need to stop telling the consumer a lie as to the benefits of energy savings versus costs just like the electric car it is not a good deal unless it is subsidized. Why should Arizona allow renewable energy fees and taxes to be added to every electric bill? IF the GOP believes in smaller government and the Private sector/Corporations want something then they need to stop asking for political favors and be able to ell and produce the products at the least costs with the best value.	1
Making the consumer more aware of the benefits of energy upgrades has to offer for the health of them and the home they live in	1
More competitive prices on energy saving devices	1
More incentives for the customer to spend for energy efficiency	1
More incentives to provide energy efficient building practices.	1
More incentives with less fine print restrictions, if an improvement is made in a remodel it needs to be rewarded in some shape or form aside from over committed rebates for the state of Maine.	1
More rebates and financial incentives for the client.	1
Much has been covered here, I am not certain that I always understand the impediments to energy upgrades...but certainly it is now easier to quantify the reluctance in some way: now lenders are even more in the driver's seat. It valuations to not demonstrate it, there is no incentive to offer financing to meet the demand for such upgrades. This will be a big headwind going forward. Only those that have the financing, or are in very large projects where the same builder may be doing all the same levels o quality construction, will have the ability to make the value come to the surface.	1
Must have inexpensive standers	1
One stop shop comparing all types of energy saving products from siding to building members and actual energy products	1
Our clients want stuff that looks nice for their money. Crown molding and granite counter tops trump energy efficiency.	1

Pamphlets that we could hand out to potential customers detailing a rough sketch of energy efficient products and how much they can save in energy over say a 6mth-1 yr. period.	1
Real tax incentives	1
Sample Board	1
Simple charts to show typical savings with selected energy savings options	1
Some "real" comparison numbers without sales hype. Many promotions call for "SAVE \$ X" but don't tell the whole story.	1
Some type of display to show clients how a home should be insulated	1
Standardization of ratings agencies (consolidate all into one). Standardized software for evaluation that is not over complicated to use, expensive or lengthy.	1
Sure there needs to be simple programs/tools that can show a client in black and white the saving's and benefits without the initial cost being too high that they don't even consider energy efficiency.	1
Tax fuel!	1
The ability to put an actual dollar amount on the savings. Customers see a percentage as too vague.	1
The ability to quantify "payback" time accurately for upgrade	1
The Federal Government does a poor job period. Stop trying to fix everything with Government spending & allow the private sector to do what it does best - solving problems. When the citizens of the US are confident, they'll spend money & typically spend it wisely. Confidence & cash flow will cause consumers to more carefully consider energy efficient construction.	1
The Government should get out of the incentive business, and concentrate their efforts on consumer education.	1
This survey was the most difficult for me to understand with the low barrier and high barrier ratios. WTF The biggest thing that I believe would help is the tangible rewards for energy efficiency....lower cost mortgages, or greater borrowing allowance due to less utility cost. I can understand the reluctance of underwriters and raters to do this as it is easy to say we've insulated to R-38, but was the insulation installed correctly. Do the renewable energy systems operate properly and are they maintained, and optimized? Are they relatively trouble or maintenance free? Did the homeowners receive instruction and documentation for the improvements or is the contractor driving off to the bank? You get what you pay for, typically.	1

Utility company get more involved as well as our government agencies including safety	1
We have a 3rd party come in and insulate, inspect and test our houses.	1
We sell our energy upgrades and applications via referrals, money savings, but mostly explaining about "comfort" for the space and noise reductions. People can relate to those benefits. Using "Features and Benefits" as a selling tool is part of our sales raining.	1
We still need more education to understand more choices, We must be able to see savings in short term, Not Twenty years	1

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