

Home Buyers Focus Groups

Market Research Report

PREPARED BY

Curtis Research Associates

REPORT #09-201

JANUARY 2009



**NORTHWEST
ENERGY
EFFICIENCY
ALLIANCE**

www.nwalliance.org

529 SW Third Avenue, Suite 600
Portland, Oregon 97204
(tel) 503-827-8416 (fax) 503-827-8437

**Northwest Energy
Efficiency Alliance**

**Home Buyers
Focus Groups
E 10360**

Qualitative Research Report

Conducted November 2008

*Curtis Research Associates
4346 SW Iowa Street
Portland, Oregon 97221
Phone: 503-452-4335
Fax: 503-244-7219
CurtisResearch@msn.com*

Table of Contents

I. Executive Summary.....	1
II. Introduction.....	4
A. Background & Research Objective	4
B. Methodology & Research Participants.....	4
III. Home Buying Attributes & Environmental Considerations.....	6
A. Most Important Characteristics	6
B. Environmental Considerations	6
C. Green.....	8
D. Sustainable.....	9
E. Energy Efficiency	10
IV. Green & Energy Efficiency Benefits.....	11
A. Whole-House Benefits.....	11
B. Component Benefits.....	13
V. Green Brands & Labels.....	16
A. Awareness & Perceptions Based on Names & Logos.....	16
1. Commonalities across Green Brands	16
2. Earth Advantage	17
3. Built Green.....	18
4. National Associates of Home Builders – Green Builders	18
5. LEED – U.S. Green Building Council.....	19
6. ENERGY STAR Homes	20
B. Evaluation of Program Information.....	20
1. Earth Advantage	21
2. LEED.....	21
3. Built Green.....	23
4. ENERGY STAR Homes	24
5. Partnership of Brands	25
VI. Energy Performance Score.....	27
VII. Conclusions.....	29
Appendix:	
A. Recruitment Screener	
B. Discussion Guide	
C. Green Brands & Labels - Information Evaluated	
D. Energy Performance Score	

I. Executive Summary

For the last five years, the Northwest Energy Efficiency Alliance (NEEA) has promoted energy-efficient homes through its Northwest ENERGY STAR Homes program. As NEEA develops its plans for the next few years, it is evaluating whether the ENERGY STAR brand is still the best approach for marketing energy-efficient homes, or if using a broader, “green” approach would be more effective.

To gain a consumer perspective on the issue, NEEA commissioned Curtis Research Associates to conduct qualitative research to explore the attitudes and perceptions of recent and potential Northwest home buyers. The research included six focus groups conducted in Seattle, Spokane and Boise in November 2008.

Key Research Findings

Environmental Considerations in Selecting a Home

In selecting a new home, environmental considerations were not among the criteria at the forefront of participants’ minds, and only rarely were energy-efficiency-related attributes mentioned. Factors such as the number and layout of bedrooms and the type of floor plan were among the most important attributes sought in a home.

Environmental considerations were also not of secondary importance to recent or prospective home buyers. Regardless of whether the topic was explored indirectly or directly using terms like “green” and “sustainable,” participants repeatedly indicated that eco-friendly attributes were not part of their decision-making criteria. Moreover, many participants had never considered a home purchase in the context of the environment, and some didn’t know how the terms “green” or “sustainable” related to buying a home.

Interpretations of the term “green” varied widely. Most viewed it one-dimensionally. For some, it meant recycled building materials; others thought of it as eco-friendly building materials, and a few equated “green” with solar panels on the rooftop. A number of participants viewed the term “green” with great skepticism; they felt that it has been so overused that it has become generic and meaningless.

Though energy efficiency was only occasionally mentioned unaided, once the topic was brought up, numerous participants indicated that it was among their secondary considerations in selecting a home. Most commonly, they considered the energy efficiency of windows, insulation and heating and cooling systems in homes they toured. The motivations for assessing energy efficiency were to reduce energy bills and/or to increase comfort, rather than to minimize the impact on the environment. Although there was awareness that saving energy was good for the environment, participants typically did not equate energy efficiency with green or eco-friendly characteristics.

Whole-House & Component Benefits

In evaluating six whole-house green and/or energy efficiency benefits—all of which have been used to promote green and energy-efficient homes—pocketbook issues and comfort trumped environmental considerations. In rank order, the three most-important attributes participants wanted in a home were: *saves money on utility bills*, *increased resale value* and *year-round comfort*. Conversely, *decrease your overall footprint* was overwhelmingly selected as the least-important attribute. Typically, participants either didn't think of homes as having a carbon footprint, or they were skeptical that it was an issue of concern.

Of nine component benefits considered, those associated with utility costs and comfort once again ranked as the top priorities. The three most-important component benefits included: *high-performance heating and cooling systems reduce utility costs by up to 30%*; *efficient whole-house insulation provides improved indoor comfort all year-round*; and *efficient appliances can reduce your utility costs by up to 20 percent*. Conversely, the two least-important attributes were *carpeting is tacked rather than glued with adhesive to reduce off-gas over time* and *enhance water conservation by using rain barrels to collect rainwater* (most considered rain barrels to be a deterrent, not a benefit).

Green Brands & Labels

Awareness of the four brands/labels of green building programs evaluated was very low. Awareness of ENERGY STAR Homes was also low; however, most participants were familiar with the ENERGY STAR name and its affiliation with energy-efficient products. This familiarity reflected favorably on the credibility of ENERGY STAR Homes.

Based on the names and logos only, participants were skeptical of each of the four brands of green building programs. Many were dubious about the use or implied use of the word “green” in the names. Some assumed it was being used as a marketing ploy, and that builders were merely jumping on the green bandwagon to capitalize on consumer interest in green products without necessarily building greener homes. Others were skeptical because they didn't know what it meant for a home to be green. There was also a common assumption that a green home would be substantially more expensive than a comparable conventional home—a premium most participants were unable or unwilling to pay.

Evaluating information from four of the five brands' Web sites provided participants more insight into green homes, particularly for Built Green and ENERGY STAR Homes, whose information was more detailed than that of Earth Advantage or LEED. While some participants remained leery of green homes, a number of participants were interested to learn what makes a home green. Moreover, some warmed to the concept of a green home. Similarly, interest in ENERGY STAR Homes increased following the review of information about the program.

Energy Performance Score

Though participants didn't understand all the details of the energy portion of the Energy Performance Score, they understood that it meant quantifying a home's energy efficiency. Most

considered it to be a somewhat or very useful tool for prospective home buyers evaluating homes. Opinions were divided on the usefulness of the carbon scale and score. Some thought it was important information to include, while others would ignore it because they didn't understand how a home generates carbon emissions and/or didn't understand the environmental implications of those emissions. There were also a number of participants who questioned the validity of concerns about carbon emissions.

Conclusions

The research does not provide a clear-cut answer as to whether a strategy of promoting energy efficiency through a green approach would be more effective than the current approach. It appears that green building programs are currently ahead of the market, as awareness and understanding of green homes and green building programs is quite low. Although home buyers are not currently taking environmental factors into consideration when they shop for a home, interest in green homes increases when home buyers begin to learn about the benefits of a green home. The benefits of greatest interest to home buyers are those tied to energy efficiency. Foremost among these are reducing utility bills and increasing year-round comfort.

If NEEA were to promote energy efficiency through a partnership with a green brand, the biggest challenges would be educating home buyers about the benefits of owning a green home, and overcoming resistance to paying a premium for a green home.

II. Introduction

A. Background & Research Objectives

The Northwest Energy Efficiency Alliance (NEEA) is a unique partnership among the region's leaders in energy efficiency with the mission to drive the development and adoption of energy-efficient products and services. Northwest ENERGY STAR® is NEEA's market transformation initiative in the residential sector. This includes Northwest ENERGY STAR Homes.

For the last five years, NEEA has promoted the construction and sale of new homes built to the ENERGY STAR Homes Northwest specification. While this program has been successful to date, it is becoming increasingly difficult to market ENERGY STAR Homes. Part of the difficulty stems from the overall decline in the housing market. Additionally, as building code standards rise, it is becoming ever more challenging to meet the ENERGY STAR standard, which mandates energy efficiency 15% higher than construction codes.

Over the last few years, there has been growing interest among consumers in environmentally-friendly products, also known as "green" products. The interest in green products extends to new home construction. To serve this market, several green construction programs have been developed within the Northwest housing industry.

NEEA's Northwest ENERGY STAR Homes program is very specific to achieving energy efficiency within the home. Conversely, newly-constructed green homes typically include some energy-efficient components, but they also include other green building attributes that contribute to, for example, improved in-house air quality, reduced water consumption and the use of sustainable building materials.

As NEEA looks to the future, it is evaluating whether the ENERGY STAR brand is still the best approach for marketing energy-efficient homes, or if using a broader, green approach, which would include energy efficiency, would be a more effective alternative given the challenges of marketing ENERGY STAR Homes. To inform the decision-making process, NEEA commissioned Curtis Research Associates to conduct qualitative research to explore the attitudes and perceptions of recent and potential Northwest home buyers.

The objectives of the research included the following:

- ♦ Identify home characteristics that are most important to Northwest home buyers.
- ♦ Explore what, if any, environmental considerations drive the selection of a home.
- ♦ Understand awareness and appeal of existing and new green labels and/or brands compared with ENERGY STAR Homes.
- ♦ Explore perceptions of specific green and energy-efficiency-related benefits currently used to promote green and energy-efficient homes.
- ♦ Determine which benefits are the most motivating and could potentially have the most impact on home purchase decisions.

B. Methodology & Research Participants

To explore the attitudes and opinions of home buyers, Curtis Research Associates conducted six focus groups during the week of November 10, 2008. The focus groups were held in Seattle, Spokane and Boise.

A total of 48 consumers took part in the research. Research participants included a broad range of recent and prospective home buyers. The research did not target those specifically interested in new construction. To qualify to take part in the research, participants were screened based on the following criteria:

- ◆ Must have purchased a single-family home or townhouse in the last 12 months or plan to purchase one in the next 12 to 18 months.
- ◆ The price of the home purchased/planning to purchase had to meet a minimum threshold, which varied by market. (See recruitment screener in Appendix for more details.)
- ◆ To demonstrate that they were serious about purchasing a home, prospective home buyers were required to have done at least one of the following:
 - Pre-qualified for a mortgage;
 - Toured homes with a real estate agent; or
 - Toured three or more open houses or model homes without a realtor.
- ◆ Participants were also screened to include a demographic cross-section of ages, incomes, employment status, type of work, education and gender.

III. Home Buying Attributes & Environmental Considerations

A. Most Important Characteristics

Each focus group began with a discussion of the new-home characteristics of greatest importance to participants. The discussion focused on attributes of the home itself and excluded external factors such as the location, schools or proximity to work. The purpose of this exercise was to determine, unaided, whether eco-friendly or energy efficiency characteristics were top-of-mind concerns.

Not a single participant across the six focus groups referenced any criteria pertaining to eco-friendly attributes. Only two mentioned energy-efficiency-related attributes; both were specifically interested in energy-efficient windows. One wanted efficient windows to minimize energy costs; the other was primarily concerned with minimizing noise, though reducing heat loss, pollution infiltration and fuel bills were secondary concerns.

The attributes most important to participants varied widely, but those mentioned most frequently included:

- ♦ The number and/or layout of bedrooms;
- ♦ A layout featuring a combination kitchen and great room;
- ♦ A yard and/or deck (some favored a small yard for easy care, others wanted a large yard for pets, entertaining or gardening);
- ♦ Large windows positioned to capture maximum natural light;
- ♦ Hardwood floors for aesthetics, ease of maintenance and/or to reduce allergens;
- ♦ An open floor plan;
- ♦ Ranch-style (popular in Spokane in particular);
- ♦ Minimum number of bathrooms;
- ♦ Big garage or three-car garage;
- ♦ Gas heat;
- ♦ A workshop; and
- ♦ Structural soundness.

B. Environmental Considerations

As a means of broaching the issue of green and energy-efficient home characteristics, research participants were asked if any environmental considerations or factors were part of their decision-making process, even if it wasn't a top priority. This question elicited a wide range of responses.

A number of participants were uncertain what the question meant; they wanted clarification. The moderator turned the question back to them, asking what, if anything, it meant to them in the context of purchasing a home. Many participants said that the physical environment surrounding the home was a consideration, or the way the home was sited on the property. Others thought of

environmental considerations in terms of proximity to work and other activities; they wanted to reduce driving to save on gas.

A number of participants flatly stated that environmental considerations were not a factor in their decision-making process; other issues took precedence. A few conveyed a small measure of remorse that it wasn't a consideration, but most did not.

- ♦ "It's terrible to live in the Northwest, in the Evergreen State and all [and not be concerned], but it's not an issue for me one way or the other as far as having a home that's environmentally friendly."

Many never thought about a home purchase in the context of the environment. It simply never crossed their minds. In contrast to a car spewing exhaust, they tended to think of their homes as environmentally-neutral entities. As one participant explained, he never considered a home in relation to the environment because he doesn't see the physical manifestation of his home's impact on the environment.

- ♦ "It's not something that's in the forefront of your mind. It's not like you walk up to your house and see billowing smoke coming out of it and that you're killing the environment by taking a bath or whatever. It's not something that people think about."

Some participants mentioned that an environmentally-friendly home was not an option available to them. Some attributed this to a lack of eco-friendly homes being built in their areas, while others said the issue never came up with their realtor. There were also a few who said such homes were out of their price range, or that they required a substantial price premium they were unwilling to pay.

A few participants expressed a lack of interest in environmentally-friendly homes because they equated them with new tract homes, which they deemed undesirable. A few others questioned the quality of homes constructed with green products and technologies.

Of those who mentioned any sort of environmental factor as part of the decision-making process, their comments typically related to energy efficiency. Most commonly, participants were on the lookout for homes with energy-efficient windows and/or good insulation. Nonetheless, most admitted that their motivations were to minimize energy bills and/or maximize comfort. Only a few mentioned that helping the environment was part of the equation, though some recognized it as a side benefit.

One participant noted that she and her family had purchased a home with Energy Star appliances, which they considered a plus. Another had toured an ENERGY STAR Home, but declined to purchase it because of the price, which he considered to be too much of a premium over a conventional home.

C. Green

While discussing environmental considerations, the term “green” sometimes came up. If it wasn’t mentioned, the moderator introduced it. In either case, participants were asked what the term “green” meant to them in the context of buying a home, and whether or not green characteristics factored into their house-hunting considerations.

There was no consensus among participants about the definition of “green” as it pertains to a home. Several complained that the term has been so overused that it has become generic and meaningless. Because of this, a number of participants were annoyed by the use of the word. Others weren’t sure what it meant because they had never considered that a home could have green qualities.

- “They would definitely have to call it something other than ‘green,’ because that term is too ubiquitous. [Calling it a green home means] nothing. Absolutely nothing!”
- “I think ‘green’ is too generic. It’s not defined.”

Among participants who offered a definition of “green,” most associated the term with having a low impact on the environment, but how their understanding of that translated to characteristics of a home varied considerably. Some equated “green” with recycling. In some cases this was defined as using recycled building materials. Others thought of it in terms of purchasing an existing home, which they perceived as the ultimate in recycling because it doesn’t require any new materials. Still others described a green home as one built with sustainable, eco-friendly building materials, though they didn’t necessarily use the word sustainable.

- ♦ “I’m talking about just [being] environmentally-friendly and using products that don’t harm the environment or putting off gases or whatever. And maybe in some cases not using materials like cedar trees that are never going to be replaced again.”

For some participants, the definition of a green home extended to energy efficiency. This included good windows, ample insulation, a new furnace and energy-efficient appliances. But once again, the purpose of pursuing energy efficiency was saving money, not being green or eco-friendly; that was considered ancillary.

- ♦ “It’s more about the cost savings than green.”

Although less common, a few participants included water-saving features, such as a tankless water heater and native plants, in their definitions of a green home. A few others associated a green home with having solar panels on the roof or minimizing the physical presence of house, such as by building it into the side of a hill. Only rarely did a participant’s definition of a green home include attributes such as low-toxicity paints or the glue used to tack the carpeting.

While the definition of green varied widely, there was a common assumption that a green home would be substantially more expensive than a conventional home. Many participants noted that they either wouldn’t or couldn’t pay a premium for a green home. A few indicated that they

would be willing to pay a small premium for a green home, but only if they could recoup the cost within a year or two.

Overall, participants were not looking for green characteristics when house-hunting. This was true even among those who professed to be environmentally conscious. However, some would be inclined to take eco-friendly factors into consideration when remodeling their homes.

- ♦ “I care about those things, sustainability and using green building [materials]. But being honest, that didn’t really factor into it. We just fell in love with this house and the location of it.”

D. Sustainable

The definition of “sustainable” was also explored. This proved more challenging because many participants were unsure what was meant by “sustainable,” particularly as it relates to a home. It was considered a “confusing term.”

- ♦ “I never thought in terms of home-building being sustainable. It’s not something that comes across my radar when you’re talking about buying a home.”

Among those who offered an explanation, some thought “sustainable” denoted durability and longevity—that the house would last for many, many years. In this context, “sustainable” meant using quality products—but not necessarily green products—in the construction and finishing of the house, as well as good building practices to make it sturdy.

For others, “sustainable” meant self-sufficiency. Most commonly, this was discussed in terms of self-sustaining energy generation, such as powering a home with solar energy. Others thought of it in terms of having a fireplace to keep warm when the electricity goes out, or having a garden to grow one’s own fruits and vegetables.

A few construed “sustainable” to mean low-maintenance, that the house was easy to sustain because it required minimal upkeep. For example, one participant wanted a stucco house because “it’s less maintenance and lasts longer.”

Some participants understood “sustainable” to mean that the materials used to build the house were from renewable resources. The most commonly-cited example was using trees that are fast-growing and managed for long-term viability.

None of the participants had sustainability—as it relates to the environment—on his or her mind as they shopped for a house. One participant, however, remarked that his family decided not to purchase a newly-built home because they did not want to support the practice of clearing trees to make room for new developments, a practice that he considered counter to sustainability.

- ♦ “We looked at new construction but we didn’t like the fact that they ripped [down] how many acres of trees to build. ... It was important to us to buy an older house that was in an established neighborhood...because we didn’t want to contribute to that.”

E. Energy Efficiency

Research participants were much more comfortable talking about energy efficiency than about the preceding terms, because it was a term they readily understood. Once the topic came up, a number of participants said they had considered energy efficiency as they shopped for homes. Most commonly, participants said they considered energy efficiency in terms of the insulation, the windows, the heating and cooling systems and the appliances. Some also discussed the importance of tight construction to eliminate drafts and leaks.

- ♦ “I’d respond more positively to someone saying [a home] was energy-efficient than green or sustainable. Energy-efficient is something that I look for in homes.”

It was widely agreed that the primary benefits of energy efficiency were reduced energy bills and increased comfort, though which of the two takes precedence varied among participants. Reducing energy consumption was also perceived to be better for the environment; however, this was of less importance than saving money to most participants. Only a few considered it equally important.

- ♦ “To me it’s all about the money.”

In spite of the widespread recognition of the benefits of energy efficiency, no participants had a priority of getting the most energy-efficient home possible. While a few noted that they were in the market for a newer home, which they knew would be more efficient because of building codes and newer appliances (though that wasn’t the primary reason for purchasing), many participants seemed more concerned with avoiding a drafty or highly-inefficient home than with purchasing a highly-efficient one. Many also seemed unaware of just how much the energy efficiency of homes can vary.

- ♦ “It’s been a lot of years since there have been codes to build houses. There have to be insulated windows and the proper amount of thickness or R-rated insulation in the walls. So you’re talking about a pretty old house that wouldn’t be energy-efficient in terms of windows and insulation.”

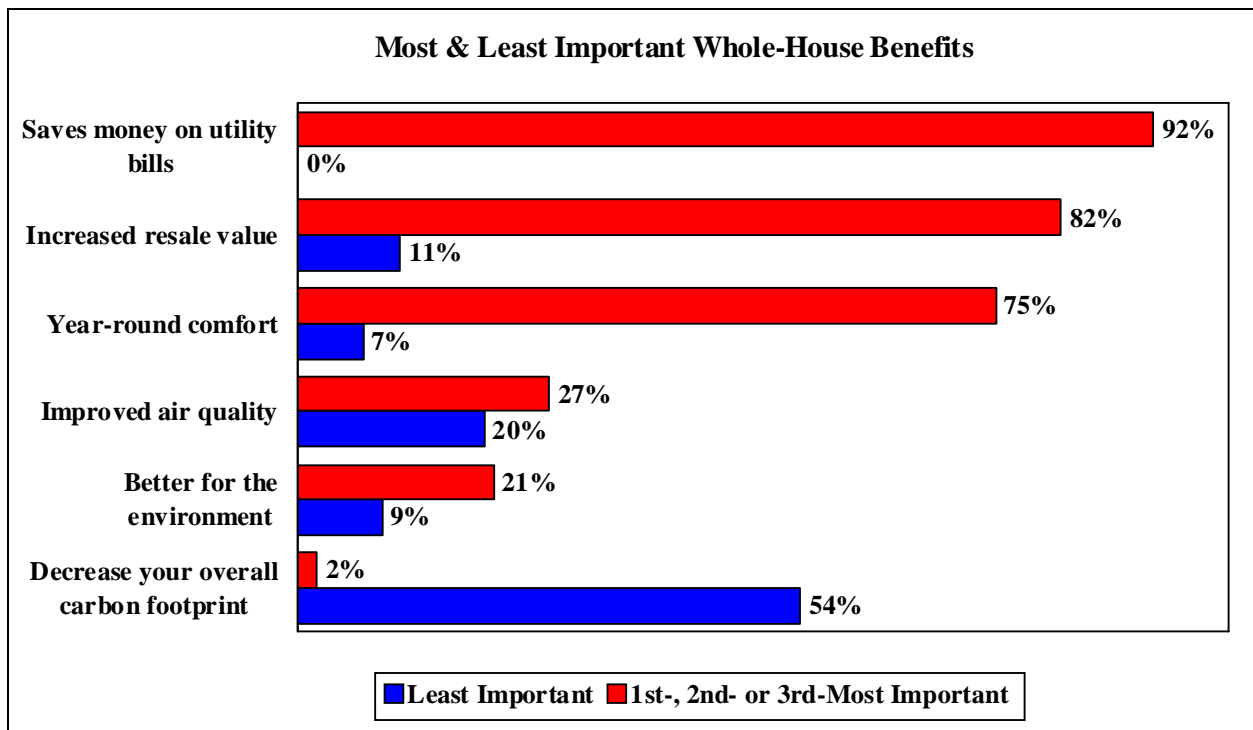
Some participants indicated that if a home they were purchasing were not very energy-efficient, they would eventually make upgrades to increase the efficiency.

VI. Green & Energy Efficiency Benefits

A. Whole-House Benefits

As another means of gauging the importance of green and energy-efficiency-related benefits, participants were asked to consider a list of six whole-house attributes. Participants were instructed to select the three attributes they considered most important in the purchase of a home, ranking them first-, second- and third-most important. They were also asked to select the one they considered least-important. Each attribute (or benefit) has been used in marketing materials to promote eco-friendly and/or energy-efficient homes; however, participants were not made aware of this.

Results of this exercise are summarized in the chart below. Given that the research was qualitative in nature, percentage results included in this report are not statistically robust. They are provided for directional insight only, and cannot be generalized beyond the research participants.



Consistent with the earlier discussion of environmental considerations, pocketbook issues trumped environmental benefits in this exercise, with *saving money on utility bills* the top-ranked whole-house benefit. This was followed closely by *increased resale value*.

Saving money on utility bills was important to participants because it is a cost of which they are reminded month-in and month-out. Resale value is important in the long run, but utility bills are short-term and ongoing. Participants also pointed out that it's easier to manage the family budget if utility costs are cheaper to begin with.

- ♦ “That seems like it gives me the biggest bang for the buck. ... Cost efficiency really is what I'm looking for.”

Most participants viewed their home as an investment, and nearly all were concerned about increasing the value of that investment. Participants noted that *increased resale value* would be important if they needed to move out of the area, decided to move up to another home, or as a nest egg for their retirement years. A few noted with regret that they were currently trying to sell a home and were having difficulty doing so, a problem they hoped to avoid in the future through more careful selection of their next home.

After the two pocketbook issues, the third most important attribute was *year-round comfort*. This benefit was particularly important to those who had ever endured living in a home that was cold in the winter and hot in the summer. As one participant said, “Why live in a house if you can't be comfortable...it just doesn't make sense.”

Improved air quality ranked as the fourth-most important attribute, and the second-least-important. Those who ranked it among their top three attributes typically did so because they or a family member suffer from asthma or have allergies, so air quality was a top-of-mind concern. Conversely, those who considered it least-important didn't perceive air quality as a concern—it was simply not an issue on their radar.

- ♦ “The thought just never crossed my mind. I just don't think about it.”

Only one in five participants selected *better for the environment* as among the most important benefits. Several participants noted, however, that a better environment is an outcome of achieving some of the higher-ranked benefits, such as saving money on utility bills. On the other hand, a number of participants indicated that they simply don't think in terms of impact on the environment when they select a home. They may think about it in other aspects of their lives—minimizing miles driven, recycling, etc.—but not when it comes to purchasing a home.

- ♦ “I try to do what I can, but when I'm buying a home, it's not about the environment. It's about location and house and fit and money and all that stuff. It doesn't come in the framework of buying a house.”

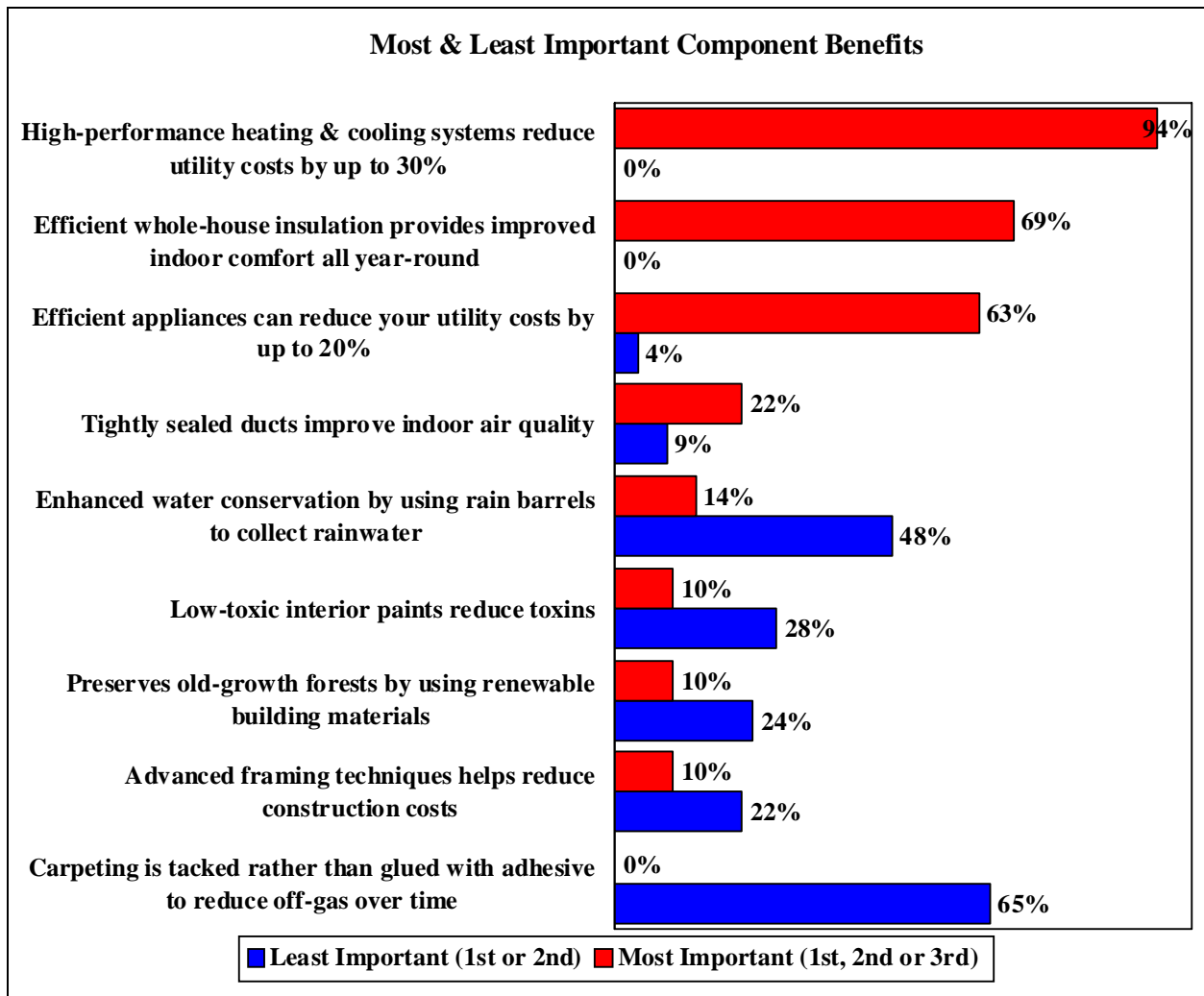
Decrease your overall carbon footprint was overwhelmingly selected as the least-important attribute. The carbon footprint is something home buyers are unaccustomed to thinking about when they are house-hunting. Furthermore, most participants associate their cars with having a carbon footprint, but not their homes. Additionally, there were a number of participants who were skeptical that a carbon footprint was even an issue of concern. One declared that he is “tired of hearing about

it.” On the other hand, another person observed that saving money on utility bills would reduce the carbon footprint.

A few participants wondered how a home buyer would assess the carbon footprint of homes they were considering. They pointed out that there isn’t a rating system for carbon footprints, nor is there information about it in the MLS listings.

B. Component Benefits

The attribute exercise was repeated with a focus on specific component benefits. Participants selected the three attributes they considered most important in a home they were purchasing, and the two they considered least important. Results are summarized in the chart below.



Consistent with the whole-house benefits, costs and comfort were the top priorities among the component benefits. *High-performance heating and cooling systems reduce utility costs by up to*

30% ranked as the top benefit, with nearly all participants selecting it as among their top three. This was considered an important attribute because heating and cooling is a major component of a home's monthly expenses, and it's an expense that is on the rise as energy costs climb. It was also pointed out that, unlike other appliances, upgrading a heating and cooling system represents a significant expenditure, rendering it worthwhile to have an energy-efficient system from the get-go. While saving money is the primary motivation, some noted that reducing energy use also benefits the environment.

Efficient whole-house insulation ranked as the second-most important attribute. Many considered efficient insulation and high-performance heating and cooling to go hand-in-hand. Without good insulation, an efficient heating and cooling system would be for naught. The two components work together to reduce utility costs and provide year-round comfort. Several also pointed out that whole-house insulation is difficult to add after a home is built.

Efficient appliances ranked third-most important, with nearly two-thirds of participants selecting it among the three attributes. Once again, saving money was the primary motivation, not helping the environment.

Tightly sealed ducts improve indoor air quality ranked a distant fourth-most important. Those who selected this attribute were primarily thinking in terms of reducing dust, allergens and mold to minimize irritants for allergy and asthma sufferers in the household. However, some thought of it in terms of improving energy efficiency by eliminating air leaks.

At the other end of the spectrum, there was strong agreement that having *carpeting tacked rather than glued with adhesive to reduce off-gas over time* was the least-important attribute. Most didn't see this as an issue of concern because they didn't want a home with carpeting, or because they didn't think that carpeting was typically installed with much or any adhesive.

Enhanced water conservation by using rain barrels to collect rainwater from the roof for landscape irrigation ranked as the second-least-important attribute. Participants typically considered this feature a deterrent, not a benefit. It was described as an "eyesore" and a "pain in the butt." Some also considered it a health hazard because it might attract bugs and mosquitoes. Nonetheless, a few participants considered the rain barrels a "cool idea."

Low-toxic interior paints reduce toxins, thereby improving indoor quality in a home ranked as the third-least-important attribute. Most considered this a non-issue; they considered all paints to be relatively safe since lead was removed years ago.

- ♦ "Paint has improved so much over the years I just don't think it's an issue because of technology."

Similarly, many participants also didn't consider *preserving old-growth forests by using renewable building materials like bamboo, cork or wheatgrass* to be a concern. Some felt it wasn't an issue because building materials are not typically made from old-growth forest products; they thought they were made from timber that can be responsibly managed and harvested. A few noted that they would select materials such as bamboo, cork or wheatgrass

because they like the aesthetic qualities; benefiting the environment would be a side bonus. Conversely, a few didn't like the idea of using such materials because it would drive up the cost of the home. There was also one person who said she would purchase an older home so no trees whatsoever would be cut down.

Only a few people selected *advanced framing techniques helps reduce construction costs* as among the most- or least-important attributes. Most participants didn't know enough about this issue to determine its importance. What's more, some noted that it wouldn't be an issue for anyone buying a pre-existing home.

V. Green Brands & Labels

A. Awareness & Perceptions Based on Name and Logo

Each focus group included a discussion of five labels/brands of green building programs. The purpose was to determine the level of awareness of each brand as well as perceptions about those brands. Each brand was represented by its name and logo, which are shown below. Participants were asked to think about each brand in the context of house hunting, including how they would feel if the brand were associated with a home they were going to tour, and what they would expect of the home.



1. Commonalities across Green Brands

There were a number of commonalities in the reactions to four of the five brands—all except for ENERGY STAR Homes. Overall, awareness of the four brands was low, so participants were primarily making conjectures based on their impressions of the names and logos.

Across all four brands, participants repeatedly voiced skepticism about the use of the word green in the name (in the case of Built Green, U.S. Green Building Council, and NAHB Green Builders), or the implication of green in the name (Earth Advantage). One objection was that participants didn't know what it meant for a home to be green; there isn't a commonly-accepted definition. Several participants likened it to the use of the word "natural" in food products, another widely-used term with no consistent definition. Because of this, many felt that "green" was a vague and generic term, a trendy, overused catch-phrase.

- ◆ "What does it really mean in a home you're buying?"
- ◆ "I'm getting sick of the term 'green.' It's just trendy."

There were also suspicions that these companies were using the name or implication of green as a marketing ploy. A number of participants surmised that they were jumping on the green bandwagon to capitalize on consumer interest in green products without necessarily building greener homes.

- ♦ “I think they’re actually jumping on the bandwagon to make a buck because everybody wants to be green. You see a lot of manufacturers promoting green, but do you really see them actually making it any better or using less material? I think they just use it as a slogan, ‘Hey! It’s green! Buy it!’”

Green homes were also widely assumed to be more expensive than comparable conventional homes. This perception would deter a number of participants from even touring a home associated with any of these four brands. Among those who ventured a guess as to how much of a price premium a green home would command, estimates included 20%, 30% and 50%.

- ♦ “Honestly, I’d probably turn around and leave because I would think the price would be jacked up way high. Usually things that are eco-friendly are just more expensive.”

On the other hand, there were also participants who were intrigued by the idea of a green home, and were interested in learning what the brands do to justify their names.

- ♦ “I think it is potentially a positive. I like to see things done better, done with less waste.”

2. Earth Advantage

None of the participants were familiar with Earth Advantage. This was not surprising given that Earth Advantage does not operate in Seattle, Spokane or Boise.

Overall, reactions to Earth Advantage were more tepid than they were for some of the other brands. Nonetheless, some participants responded positively to Earth Advantage because they felt the name and logo conveyed a company that builds environmentally-friendly homes. They were intrigued enough to want to learn more and to understand what makes a home an Earth Advantage home.

- ♦ “It is definitely a potential positive for me. I would want to know what that meant.”

Others, however, were put off because they didn’t associate the name with building homes. For example, one participant thought the name was more fitting for cleaning products. There were also some who were skeptical because they considered the name a marketing gimmick to attract attention, rather than a credible moniker.

- ♦ “It doesn’t connect quite as directly or as obviously to construction or energy efficiency to me.”

Because they didn’t necessarily associate the name with building homes, many participants had difficulty envisioning what an Earth Advantage home would be like. Others expected the home to be earth friendly, which might include better insulation, better windows or a more energy-efficient heating and cooling system. Some also expected the home to feature sustainable or recycled finishing materials, such as bamboo floors or reclaimed rock for the fireplace. Participants didn’t perceive an Earth Advantage home to be comprehensively green, but they expected it would include some green characteristics.

3. Built Green

A few participants recognized the Built Green name and/or logo, yet they weren't familiar with any specifics about the program or the homes. For example, a few had seen Built Green signs as they shopped for a house, but they hadn't toured any Built Green homes.

In general, participants reacted more positively to Built Green than they did to the other three green brands (excluding ENERGY STAR Homes). Most participants felt the name and logo did a good job of communicating what it was about—building environmentally-friendly homes. Nevertheless, as mentioned previously, there were a number of participants who were dubious of any insinuation of green benefits.

- ♦ “By the very slogan it says what it’s trying to do. You get it. ... Then the image, the power of the fish suggests water and habitat.”

Participants had an easier time envisioning what a Built Green home would be like than they did with the other three green brands. Generally, participants expected that a Built Green home would feature more green building materials and techniques than any of the other brands. They expected that it would be designed from top to bottom to conserve energy and resources; that it would use sustainable, non-toxic products; and that it would include features to control runoff. A few also thought it would be designed to fit the surrounding landscape, including minimizing the number of trees cut to make room for the home. Some participants disagreed that the home would conserve as much energy; they did not expect a Built Green home to feature energy-efficient appliances.

Coupled with the perception that it would achieve a higher level of greenness, participants generally expected a Built Green home to be more expensive than the other green brands. Some also expected it to be better built.

4. National Association of Home Builders - Green Builders

Only a few participants were familiar with the National Association of Home Builders (NAHB) Green Builders, though most of that familiarity was with the NAHB, not with the Green Builders part of the name.

Reactions to this name and logo were mixed. Some participants looked somewhat favorably on it because they thought the name implied that a builder would have to meet a set of standards or qualification to earn the designation of NAHB Green Builders. To these participants, this implied a level of legitimacy or credibility. Conversely, others viewed it as an association that merely requires a fee to join. They felt the association was for promotional purposes and that it did not imply anything about a builder's standards or quality. Some were even more pessimistic, viewing it as a negative reflection on the builder. One person speculated that builders who haven't made a reputation for themselves would join the association to enhance their image. Another felt that NAHB connoted rapid development rather than quality development.

Some participants didn't have any particular expectations of a home associated with NAHB Green Builders; they didn't know enough about it to form any impressions. Others offered a

range of ideas of what such as house might be like. Some thought the home would include some energy-efficient features—better insulation or windows, or perhaps energy-efficient appliances. Others disagreed; they didn't expect energy efficiency, but they did expect recycled or environmentally-friendly building materials. Still others thought the house would be built with some green techniques—maybe better-quality framing—but that it would not necessarily use green building materials.

5. LEED – U.S. Green Building Council

About a half-dozen people across the six focus groups were aware of LEED, though they didn't necessarily know for what the acronym stands. Nevertheless, they were familiar enough to know that buildings must achieve rigorous standards to be certified as LEED. For these participants, the label conveyed credibility and quality.

- ♦ “It'd be positive to me. There are very few buildings in our valley that are LEED-certified right now. It takes a lot of good practices to get that designation. To me I'd be like, 'Oh, wow! They've really taken a lot of steps.'”

Among those unfamiliar with LEED, some felt the name and logo conveyed very little about the organization. In fact, they found them confusing because the two didn't seem to go together. Others interpreted the name and logo to mean that there were guidelines or independent audits to verify any claims made about homes designated as LEED.

There was no consensus regarding whether having “U.S.” in the name was a pro or a con. Some participants felt that it added a level of credibility to the label and made it seem more legitimate—particularly relative to NAHB Green Builders. Conversely, some participants were leery of government involvement. For these participants, U.S. connoted politics, bureaucracy and/or regulation. Some remarked that they would feel more comfortable with local government involvement than involvement at the national level.

- ♦ “I'm suspicious of anything that has 'U.S.' in front of it. That seems to me like it is government-promoted and a lot of politics behind it.”

While some had difficulty forming impressions of a LEED home, those familiar with LEED or who had favorable impressions of the name typically expected the home to sport a wide range of energy-efficient and green features. These would include energy-efficient appliances, a high-quality heating and cooling system, ample insulation and construction from renewable resources and recycled products.

Some expected that the high standards of a LEED home would come with a higher price tag.

6. ENERGY STAR Homes

Of the five brands evaluated, the ENERGY STAR name had the greatest level of name recognition among participants. Nearly everyone was at least somewhat familiar with the label. Most were familiar with ENERGY STAR in relation to energy-efficient appliances and windows, not homes. Only a few had seen the name or heard of ENERGY STAR Homes, including one who had toured a home and one who had previously owned an ENERGY STAR Home.

The high level of familiarity with the ENERGY STAR name enhanced the perceived credibility of ENERGY STAR Homes. It was widely viewed as the most credible of the five brands evaluated.

- ♦ “The strength of this logo is the strength of association. We’re familiar with it already.”

Participants commonly expected an ENERGY STAR Home to feature a wide range of energy-efficient products, including the heating and cooling system, appliances, insulation and windows. Some also mentioned that they would expect the home to include low-flow showers and toilets. In addition, a few mentioned that they expected it to be a tight, well-built home.

Participants did not expect an ENERGY STAR Home to include green attributes; no bamboo floors or solar panels, for example. Nor did they expect the home to be designed for its specific site, so it wouldn’t necessarily make the best use of sunlight or its environment.

Participants associated ENERGY STAR Homes with saving money on energy bills, but they did not think of them in terms of being good for the environment. They also didn’t think an ENERGY STAR Home would be as expensive as a green home, such as one from Built Green or Earth Advantage.

B. Evaluation of Program Information

The focus groups were initially planned to explore perceptions of the green brands based only on participants’ current levels of familiarity with each one. However, it became clear during the first two focus groups that familiarity was so low that insights from this discussion would be limited. To make the discussions more productive, a decision was made to share information about the programs with participants. Due to time constraints, NAHB Green Builders was not included.

The information was copied from the introductory page of each brand’s Web site. The information was not an apples-to-apples comparison of the programs, but an exploration of reactions based on whatever introductory information was available for each brand. Copies of the information reviewed are included in the appendix.

As participants reviewed the information for each brand, they were instructed to circle any words, phrases or sentences that they liked and to cross out anything that they disliked about the program.

1. Earth Advantage

The description of Earth Advantage was very brief—just three sentences, so participants didn't have much to evaluate. Nonetheless, there were several elements to which participants reacted favorably. The most commonly-circled words and phrases included:

- ♦ Adding value;
- ♦ Reducing energy bills;
- ♦ Year-round comfort;
- ♦ Conserving energy and resources;
- ♦ Indoor air quality; and
- ♦ Environmentally responsible (less frequently circled).

Some of the same words and phrases that participants liked were also among the most-frequently crossed out; however, more people circled these words than crossed them out.

- ♦ Indoor air quality;
- ♦ Environmentally responsible;
- ♦ Doesn't mean giving up on comfort and quality;
- ♦ Rest easy; and
- ♦ Certified.

The information was typically viewed as a nice introduction to Earth Advantage homes, but too vague to be considered informative or to create a strong impression of the program. Participants repeatedly pointed out that the information didn't include any explanation of the hows and whys of the program, such as how it adds value to a home. Many also felt the statement would have been stronger if it had not started out with a negative, saying that it “doesn't mean giving up on comfort or quality” to own an Earth Advantage home.

Some participants were harsher in their assessments of the information. They felt it was so overly vague and general that it failed to differentiate Earth Advantage homes from others. They felt the statement could have been used to describe virtually any newly-built home, and that it contained nothing more than standard real-estate buzzwords.

- ♦ “It's like real estate agent-spiel 101. Hokey words.”

In spite of the limitations of the information, it did succeed in generating interest among some participants in learning more about Earth Advantage homes.

2. LEED

The information for LEED was also very brief, consisting of two short paragraphs. Participants reacted to the two paragraphs very differently. A number of people crossed out the entire first paragraph or large parts of it. Conversely, participants frequently circled either the entire second paragraph or all its key words and phrases.

The most commonly circled words and phrases included:

- ◆ Entire second paragraph;
- ◆ Benefits of owning a LEED home...(entire sentence);
- ◆ Energy and environmental design;
- ◆ Rating system;
- ◆ High-performance;
- ◆ Uses less water and natural resources;
- ◆ Healthier;
- ◆ More comfortable;
- ◆ Lower energy; and
- ◆ Comparable to that of owning a conventional home.

The words and phrases most commonly crossed out were:

- ◆ The entire first paragraph;
- ◆ Universally understood and accepted tools and performance criteria;
- ◆ Encourages and accelerates global adoption; and
- ◆ Net costs.

The first paragraph was a turnoff because it was perceived as bureaucratic and difficult to understand. In addition, some felt that it smacked of government interference and overreach, particularly because of the phrase “encourages and accelerates global adoption.” It was also perceived to be talking down to the reader because no one knew what comprised “universally understood and accepted tools and performance criteria.”

- ◆ “When the government starts putting these expectations—that leads to limitations. ... This just seems like a step toward more rules and more what they said are standards. It says based on a standard, and I don’t agree with that. I want options.”

On the other hand, even if they didn’t care for the tone and style of the first paragraph, some participants liked that the program was proactively encouraging more green building and that there were specific standards for accountability.

- ◆ “If there are going to be any claims made about green building practices, I would like there to be some kind of organization holding them accountable.”

Participants reacted much more favorably to the second paragraph. It was generally considered informative without being sales-y. They also appreciated that it defined LEED standards for a green house. The primary point of contention pertained to the last sentence, which stated that the net cost of owning a LEED home was comparable to that of owning a conventional home. Some viewed the statement favorably. They were comfortable with the idea that a LEED home would be more expensive upfront, but that the added cost would be recouped over time. Others viewed the statement with suspicion because it was too vague. As one participant said, “it raised a red

flag in my mind” because it didn’t include any indication of the difference in initial cost or the length of the payback period.

3. Built Green

The information for Built Green was longer and more detailed than that for Earth Advantage or LEED. Overall, participants found much more to like about the information than to dislike.

Participants circled numerous words and phrases. The most common included:

- ♦ Healthier;
- ♦ More efficient;
- ♦ Attractive;
- ♦ Comfortable;
- ♦ Durable;
- ♦ Environmentally-friendly;
- ♦ Save you money;
- ♦ Exceed building codes;
- ♦ Local;
- ♦ Less expensive to operate;
- ♦ Energy and water efficient;
- ♦ Save you money each month;
- ♦ Healthier and more comfortable;
- ♦ Durable;
- ♦ Reduces maintenance;
- ♦ Outstanding value;
- ♦ Quality built;
- ♦ Efficient heating and cooling;
- ♦ Tightly sealed; and
- ♦ Well-insulated.

The words, phrases and sentences most frequently crossed out included:

- ♦ Exceed building codes to provide homeowners with years of healthy, quality living, while protecting our precious Northwest environment;
- ♦ Each local program has its own Checklist, designed to reflect local issues and priorities;
- ♦ Proven;
- ♦ You can create a positive change...(entire sentence or entire paragraph);
- ♦ Programs award the BUILT GREEN certificate...(entire sentence or paragraph); and
- ♦ Other public and private partners (included in Spokane only);

Whereas participants had initially been wary of the idea of a green home, many warmed to the concept after reading the Built Green information. The information was presented in a reader-friendly style and included a lot of specificity, which helped participants to understand what makes a home green. One noted that it was a good balance of information on saving money and helping the environment.

Many also perceived Built Green as a well-rounded program because it takes into consideration factors both inside and outside the home. Another positive was that Built Green was not one set of green criteria but that it offered a range of green options through its one- to five-star rating system. This helped some participants realize that they didn’t have to go to extremes to have a green home.

- ♦ “Maybe we can’t afford a five-star house, but we can afford a three-star house. That’s kind of nice. It’s kind of nice to be able to have a range to be able to decide where you’re at.”

Not everyone was intrigued by Built Green. A number of participants remained skeptical. Some perceived the information as “more of a spin; more like a sales pitch.” Others remained leery because they didn’t believe that builders really care about building green homes and “protecting our precious Northwest;” they care about making money. Some took exception to the claim that the program has been “proven.” They didn’t feel that was a valid claim given that the program has been in existence for only one year.

The issue that provoked the biggest differences of opinions pertained to Built Green being a local program. Some considered this a strong positive while others objected to it. Those who were pleased that the program was made up of a partnership of local organizations with its own local checklist felt the program would be more in tune with local needs and climate issues. They liked the idea that the standards were developed locally rather than imposed from the national level. Some also liked its local status because it meant that they could deal with someone face to face if problems arose. Conversely, some participants felt that allowing each local program to develop its own checklist left the program vulnerable to manipulation and collusion. They thought it would be more credible to have a set of national standards.

4. ENERGY STAR Homes

In evaluating the ENERGY STAR Homes information, participants found far more things to their liking than not. The primary difference was whether they circled an entire section, the headline for a section and/or key words within the section. The most commonly circled elements included:

- ♦ Built better for you;*
- ♦ Better for your pocketbook;*
- ♦ Better heating and cooling;*
- ♦ Better for the environment;*
- ♦ Better for you;*
- ♦ Better;
- ♦ Higher resale value;
- ♦ High-performance windows;
- ♦ Smart investment;
- ♦ More money in your wallet;
- ♦ Smart investment;
- ♦ Environmental Protection Agency;
- ♦ At least 15% more efficient;
- ♦ Healthier air;
- ♦ Cost less to operate;
- ♦ Better than standard code-built homes; and
- ♦ Even temperatures.

**Headline or the entire section.*

Far fewer people crossed out any part of the information than circled words. The items most commonly crossed out included:

- ♦ Better for the environment (headline or entire section);
- ♦ ENERGY STAR Homes are at least 15% more efficient...(phrase or entire section);
- ♦ Environmental Protection Agency; and
- ♦ The energy used by American homes accounts for 20% of total U.S. carbon dioxide (CO₂) emissions.

Overall, participants reacted very positively to the information. It was commonly considered to be an informative and well-written piece. Participants appreciated the level of specificity it

included, such as “15% more efficient than code-built new homes.” That helped move energy efficiency from the abstract to the tangible. Participants also liked that it addressed the benefits of energy efficiency on multiple levels: economics, comfort and the environment. One person noted that it came across as practical instead of idealistic. It was also an eye-opener for those who didn’t realize that ENERGY STAR applies to more than just appliances.

- ♦ “Very informative. ... They explained them in terms that are easy for everybody to understand. I thought it was just very well done.”
- ♦ “I like that it quantifies the value.”

That fact that ENERGY STAR Homes are certified was important to most participants. They appreciated that there were objective, measurable standards. However, opinions varied on whether it was a pro or a con that the program was based on guidelines set forth by the Environmental Protection Agency (EPA). Some felt that it gave the program credibility because it established national standards. On the flip side, some didn’t trust the EPA’s standards; they felt they should be higher. Others didn’t want any government involvement in setting the standards.

- ♦ “It is a standard set by the EPA and it’s something that really is a true standard.”
- ♦ “I don’t think the EPA is a very high bar.”

The biggest negative associated with ENERGY STAR Homes was the presumed higher price. Some participants were unimpressed with the stated 15% higher efficiency. They didn’t think the return was high enough to justify added the investment.

- ♦ “It’s great that it’s 15% more efficient, but it’s not worth the money that you put into it. ... To be honest, there’s not a positive benefit ratio.”

C. Partnership of Brands

To wrap up the discussion of brands, participants were asked to consider a potential partnership between ENERGY STAR Homes and another brand. Participants were asked which brand they thought would make the best partner for ENERGY STAR Homes. Built Green was widely considered to be the most viable potential partner, but the reasons behind the recommendation varied, as did perceptions of what ENERGY STAR Homes and Built Green would each contribute to the partnership.

It should be noted that one reason Built Green was so commonly selected as the strongest partner was because most participants didn’t feel they had enough information about Earth Advantage or LEED to make informed judgments about their suitability as partners with ENERGY STAR Homes. The few participants who were familiar with LEED, however, considered it a good partner for ENERGY STAR Homes.

In a partnership between Built Green and ENERGY STAR Homes, some participants thought the strength of Built Green was its local affiliations, including local builders with knowledge of the needs and concerns of the local market. Among these participants, Built Green’s “green”

attributes were not a factor. The strength of ENERGY STAR Homes was the recognition and credibility of the ENERGY STAR name, coupled with the backing of the EPA and its national energy-efficiency standards.

For other participants, Built Green's focus on green building materials and practices was its strength, while ENERGY STAR Homes' strength was its focus on energy efficiency. Bringing the two programs together was seen as "the total package." Some saw Built Green in more positive terms, perceiving the program as custom builders who would design a comprehensively green home. Conversely, ENERGY STAR Homes was seen as having a singular focus on energy consumption.

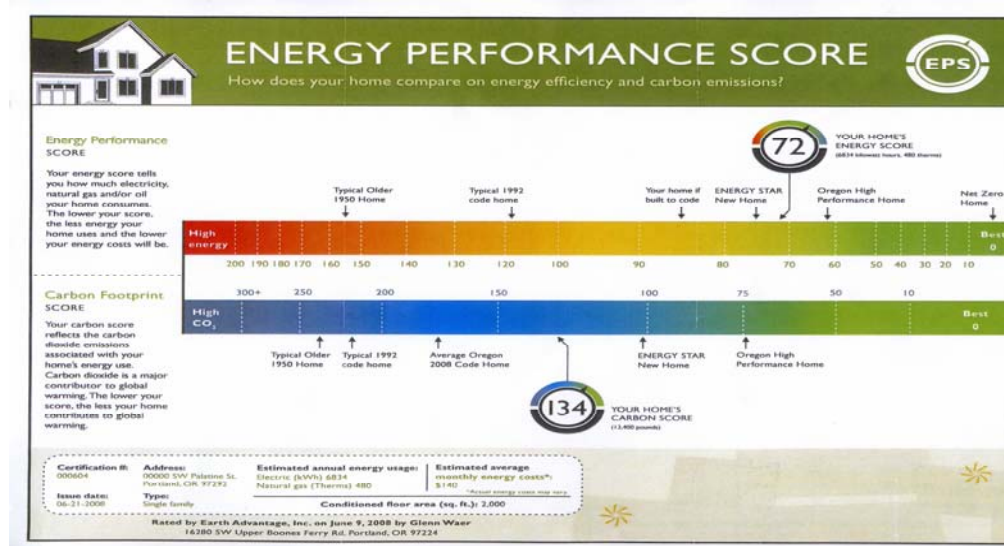
- ♦ "Energy Star to me conjures up heating and air conditioning and the appliances. It doesn't necessarily talk about the building materials and other stuff. But put together, it seems like it's got the whole package covered."
- ♦ "...Built Green just seems more overall comprehensive. Energy Star is more only about the energy you consume."

Another point of view was less complimentary toward Built Green and more complimentary toward ENERGY STAR Homes. Some participants saw a partnership between Built Green and ENERGY STAR HOMES as bringing together the "tree-hugger" components of Built Green, such as rain barrels to catch runoff, with the "practicality" of ENERGY STAR Homes, with its focus on energy efficiency.

- ♦ "(With) Built Green, I think you're going to have rain barrels on the grass and on your roof and all these things. Where Energy Star Homes—back to practicality—they're addressing all the practical things. Tightly sealed ductwork. High performance windows."

VI. Energy Performance Score

To wrap up each focus group, research participants were asked to review the Energy Performance Score (EPS) for a hypothetical home. The EPS is a tool under development to provide a means of assessing a home's energy efficiency and carbon emissions. Participants were asked to review the information from the perspective of a prospective home buyer who is considering purchasing the home. (A full-sized copy of the EPS is included in the Appendix.)



Research participants understood the essence of the EPS, but didn't necessarily understand the details. More specifically, most recognized that the top scale and corresponding Energy Score were quantifying "how energy-efficient your home is going to be." Some participants likened it to the EnergyGuide label on appliances or the Miles per Gallon rating on cars. Most participants were fairly comfortable with this information, though it was not entirely clear to them.

There were three primary points of uncertainty about the Energy Score and scale. First, what is the scale measuring? Second, why do the increments between points on the scale vary, so that, for example, the distance between 90 and 100 is much larger than the distance from 190 to 200? Third and most importantly, how do different scores translate to differences between homes in terms of dollars and cents? Participants understood that the home in the example, with a score of 72, was more energy-efficient than an "ENERGY STAR New Home," but they wanted to know what that meant in terms of actual energy costs.

While participants generally grasped that the bottom scale and Carbon Score were quantifying the carbon emissions associated with that home, what they understood that to mean varied, as did opinions of its validity. Some participants correctly understood what the Carbon Score was and appreciated its implications for the environment. Others had no idea how a home generates carbon emissions and/or didn't understand the impact of those emissions. For example, several participants thought it was a measure of carbon dioxide emissions (which a few confused for

carbon monoxide) circulating inside the home. Still others questioned or disputed the relevance of a carbon footprint or score, dubbing it a “gimmick” or “a political thing.”

Assuming it would be available for all homes on the market, some participants were enthusiastic about the energy portion of the EPS, seeing it as a useful tool for comparing homes. As one person said, “The more I know about the houses, the better.” Others were less enthusiastic but still considered it an interesting piece of information to have as they evaluated homes. Opinions were split on the usefulness of the Carbon Score. Some thought it was important information to include; others would ignore that section.

- ♦ “I actually find it very important. I intend on having kids. ... I want the environment to be good for my kids. I want the air to be clean. If my home is helping to not contribute to the degradation of the environment, that would make that important to me.”
- ♦ “To me, the energy performance is way more important than the carbon footprint. ... I’m not even really looking at that part.”

VII. Conclusions

The research indicates that green home programs may be ahead of the curve, with home buyers not yet thinking about environmental considerations when they evaluate homes for purchase. This is true even among those who claim to be environmentally-conscious in other aspects of their lives.

Awareness of the ENERGY STAR brand is significantly greater than that of any of the green brands considered. Furthermore, the brand equity of the ENERGY STAR name reflects very favorably on ENERGY STAR Homes, giving it legitimacy and credibility with home buyers that the other brands did not possess.

If NEEA were to promote energy efficiency in collaboration with a green brand, it would need to address a number of barriers associated with green homes. The most basic barrier is the lack of understanding of what “green” means in the context of a home. For many, the term is confusing and/or off-putting. Similarly, the term “sustainable” is not well-understood, nor is a home’s carbon footprint. To minimize confusion, it would be best to avoid using any of these terms when promoting green homes, and to instead focus on specific benefits of owning a green home.

For the most part, home buyers are not motivated by environmental benefits. The benefits most valued in a green home are those tied to energy efficiency, primarily minimizing energy bills and maximizing year-round comfort. Home buyers do not typically associate energy efficiency with being green or environmentally-friendly.

When promoting other green attributes, it is recommended that the focus be on how the attribute enhances a home’s comfort or aesthetics. For example, rather than promoting bamboo, cork and wheatgrass for their eco-friendly properties, the emphasis should be on their aesthetic qualities.

Another barrier to promoting green homes is the suspicion that green builders are merely trying to cash in on the green movement, but are not necessarily building greener homes. The anticipated price premium of a green home is another significant barrier. To address this, it is important to educate potential buyers about savings in utility costs and the increased resale value of green homes.

Currently, home buyers typically do not appreciate or understand the differences in energy efficiency among homes they are considering purchasing. The Energy Performance Score would be a useful tool for helping home buyers better assess the differences, and better appreciate the importance of purchasing an energy-efficient home.

Appendix A

Recruitment Screener

**Northwest Energy Efficiency Alliance
Home Buyer Focus Groups
Conducted by Curtis Research Associates
Criteria & Quotas**

Groups:	Conduct 2 focus groups per city in Seattle, Spokane & Boise
Date & Times:	Seattle: November 11 th at 5:30 - 7:15 & 7:45 - 9:30 Spokane: November 12 th at 5:30 - 7:15 & 7:45 - 9:30 Boise: November 13 th at 5:30 - 7:15 & 7:45 - 9:30
Size:	Recruit 11 per group with the goal of having 8 to 10 participate
Length:	1 hour and 45 minutes per group
<u>Recruitment Criteria:</u>	
Home Buyers:	Recruit a mix of those who have purchased a single family home or townhouse or plan on purchasing one. Condos and manufactured homes do not qualify.
Time frame:	Buyers must have purchased their home or townhouse within the last 12 months.
Prospects:	Prospective home buyers must plan on purchasing a home or townhouse in the next 12 to 18 months, assuming the economy stabilizes and the credit/mortgage industry is operating normally. To ensure they are serious home buyers, prospects must have done at least one of the following in the last 12 months: <ul style="list-style-type: none">- Visited homes with a realtor;- Pre-qualified for a mortgage; or- Toured 3 or more open houses or model homes without a realtor.
Price of Home:	Seattle: Must have purchased or plan to purchase a home in the \$450,000 to \$850,000 price range Spokane: Must have purchased or plan to purchase a home in the \$180,000 to \$850,000 price range Boise: Home buyers must have purchased a home in the \$180,000 to \$850,000 price range, with a max of 5 people across both groups in the \$180,000 to \$219,999 range. Prospective buyers must plan on purchasing a home costing \$200,000 or more.
Head of household:	Recruit heads of households—those most responsible for making purchase decisions about big-ticket items
Demographics:	Recruit a demographic cross-section as best as possible given the low incidence: <ul style="list-style-type: none">- Approximately 50% male and 50% female per group;- A mix of ages from 22 to 70;- A cross-section of employment status & type of work; and- A mix of education levels.

- Articulation:** Use open-ended question to screen for articulation—must be articulate and willing to share their opinion in a small group discussion!
- Security Screen:** Must pass the employment security screen. Cannot ever have worked for:
- An advertising agency or department
 - Market research department or company
 - Media, such as TV, Newspaper, Radio, etc.
 - A gas or electric company, or as a consultant for the gas or electric industry
 - In real estate, home construction or other related home building/buying industries
- Past Participation:** No participation in a focus group or other face-to-face research in the last 6 months.
- Referrals:** Acceptable to use referrals as long as people who know each other do not attend the same focus group. Also acceptable to put an ad on Craigslist to find those who have purchased a home, but not those planning to purchase.
- The Northwest Energy Efficiency Alliance is putting flyers about the research in offices/model homes of builders they work with in the area. Anyone interested in participating will call Fieldwork and ask for Samantha.
- Incentive:** \$100

Recruitment Questionnaire – Seattle

Introduction: Hello, my name is _____, and I'm with _____. We are conducting a short survey with heads of households who are between the ages of 22 and 70. Are you between 22 and 70?

[If no, ask if someone else in the household meets the age criteria.]

[If YES]... I just have a few questions for you.

[If needed]...This is not a sales call. All questions are for research purposes only.

1. Who is the person in the household who typically makes major purchase decisions, such as deciding when to make major purchases and what to purchase?
 1. Yourself
 2. Someone else in the household...*ask to speak to that person and start interview over.*
 3. Share the responsibility equally with someone else

2. Record gender by observation *{Recruit approximately 50% male, 50% female per group}*
 1. Male
 2. Female

3. Do you own or rent your current place of residence?
 1. Own
 2. Rent
 3. Other

4. Which, if any, of the following big-ticket items have you purchased for your household in the last 12 months? In the last 12 months have you purchased...?

A.	A high-definition TV	No	Yes
B.	A major appliance (a refrigerator, washer, dryer, etc.)	No	Yes
C.	A car	No	Yes
D.	A home?	No... <i>Skip to Q8</i>	Yes... <i>Continue</i>

5. What type of home did you purchase?

1. Condominium... <i>Terminate</i>	3. Manufactured home... <i>Terminate</i>
2. Townhouse... <i>Continue</i>	4. Detached single family home... <i>Continue</i>

6. How many months ago did you purchase your home? _____ Months
{Continue if purchased home in last 12 months; if 13-18 months, hold name}

7. Which of the following ranges best describes the price of home you purchased?
 1. Up to \$249,999...*Terminate*
 2. \$250,000 to \$349,999...*Terminate*
 3. \$350,000 to \$449,999...*Terminate but hold name*
 4. \$450,000 to \$649,000...*Qualifies...skip to Q13*
 5. \$650,000 to \$850,000...*Qualifies...skip to Q13*
 6. More than \$850,000...*Terminate*

8. *{For non-home buyers}* Thinking of the same big-ticket items, I'd like you to think ahead to the next 12 to 18 months. Please rate how likely you are to purchase each of these items using the following 1 to 5 scale:

- 1 = Definitely will not
- 2 = Probably will not
- 3 = Not sure
- 4 = Probably will purchase
- 5 = Definitely will purchase

As you answer these questions, please assume that the economy has stabilized and the credit markets are back to normal. With that in mind, how likely are you to purchase a... in the next 12 to 18 months?

		Definitely Will Not			Definitely Will	
A.	A high-definition TV	1	2	3	4	5
B.	A major appliance (refrigerator, washer, dryer, etc.)	1	2	3	4	5
C.	A car	1	2	3	4	5
D.	A home	1	2	3	4	5
		<i>Terminate</i>			<i>Continue</i>	

9. What type of home are you most likely to purchase?

- 1. A condominium...*Terminate*
- 2. A townhouse ...*Continue*
- 3. A manufactured home...*Terminate*
- 4. A detached single family home... *Continue*
- 5. Not sure...*Continue*

10. Which of the following ranges best describes the price of home you are most likely to purchase?

- 1. Up to \$249,999...*Terminate*
- 2. \$250,000 to \$349,999...*Terminate*
- 3. \$350,000 to \$449,999...*Terminate but hold name*
- 4. \$450,000 to \$649,000...*Continue*
- 5. \$650,000 to \$850,000...*Continue*
- 6. More than \$850,000...*Terminate*

11. Which, if any, of the following have you done to help you decide what home to purchase? Have you....

- A. Looked at homes for sale online No Yes...*Does not qualify*
- B. Pre-qualified for a mortgage? No Yes...*Qualifies*
- C. Visited homes with a realtor?
 - 1. No
 - 2. Yes... *{If yes, Qualifies but ask}* Approximately home many homes have you visited with a realtor? (Specify) _____
- D. Toured any open houses or model homes on your own, without a realtor?
 - 1. No
 - 2. Yes... *{If yes}* Approximately home many open houses or model homes have you toured without a realtor? (Specify) _____ *Qualifies if 3 or more*

If qualifies under B, C, or D skip to Q13; if not, ask Q12 then terminate but hold name.

12. *{Ask those who did not qualify under Q11}* Is there anything you've been doing to help you decide on a new home that I haven't mentioned?

1. Yes....What have you been doing? _____

2. No...Is there anything that is keeping you from looking for a new home at this time?

Terminate and hold names

{Note: If we have trouble finding prospective buyers, we will use answers to Q12 to help determine if there are some people who are serious prospective home buyers that we've missed, or who have a legitimate reason for not actively shopping for a home at this time but are serious about buying a new home in the next 12 to 18 months.}

13. ***If qualified as a home buyer:*** When purchasing your home, what were the 3 most important attributes you were looking for in the home—not the location or the schools, but specifically what you were looking for in the home itself?

If qualified as a prospective buyer: When deciding what home to purchase, what are the 3 most important attributes you are looking for in a home—not the location or the schools, but specifically what you are looking for in the house itself?

{Use to screen for articulation. Only recruit respondents who can articulate a thoughtful & complete response. Do not accept vague responses. Do not recruit anyone who seems apathetic or is not articulate.}

14. I have just a few final questions for classification purposes. Which of the following categories includes your age? ***{Recruit a mix of ages.}***

- | | | |
|---|------------|---|
| 1. 21 or younger... <i>Terminate</i> | 5. 40 – 44 | 9. 60 – 64 |
| 2. 22 – 29 | 6. 45 – 49 | 10. 65 – 70 |
| 3. 30 – 34 | 7. 50 – 54 | 11. 71 or older <i>Terminate</i> |
| 4. 35 – 39 | 8. 55 – 59 | |

15. Please stop me when I read the category that best describes your household's total annual income before taxes.

- | | |
|---------------------------|---------------------------|
| 1. Up to \$49,999 | 4. \$150,000 to \$199,999 |
| 2. \$50,000 to \$99,999 | 5. \$200,000 or more |
| 3. \$100,000 to \$149,999 | |

16A. What is your employment status?

- | | |
|-------------------------------------|--|
| 1. Employed full-time...ask 16B | 4. Retired |
| 2. Employed part-time...ask 16B | 5. Not currently employed {Max of 1 across both groups in each city} |
| 3. Homemaker or stay-at-home parent | |

16B. What kind of work do you do? {Specify}

17. Have you or anyone else in your household ever worked in any of the following fields:
{Terminate if any response is yes!}

- | | | |
|--|-----|----|
| 1. For an advertising agency or department? | Yes | No |
| 2. For a market research department or company? | Yes | No |
| 3. For a newspaper, TV, radio or any other type of media: | Yes | No |
| 4. For a gas or electric company or as a consultant within the gas or electric industries? | Yes | No |
| 5. As a realtor, home builder, or other housing-related business? | Yes | No |

18. What is the highest level of education that you have completed?

- | | |
|---------------------------------|---------------------|
| 1. Some high school or less | 4. College graduate |
| 2. High school graduate or GED | 5. Post graduate |
| 3. Some college or trade school | |

19. Have you **ever** participated in a focus group or face-to-face interview for market research purposes on any topic?

- | | |
|---------------------|--------|
| 1. No...Skip to Q21 | 2. Yes |
|---------------------|--------|

20. When was the last time you participated in a focus group or face-to-face interview for market research purposes? {Don't read response}

- | | |
|---|---------------------------|
| 1. Within the last 6 months... Terminate but hold name | 2. More than 6 months ago |
|---|---------------------------|

21. *{Identify how respondent was found. If respondent called in because they learned about the research, please ask how they learned about it. If respondent came from recruiter's database, or was found by the facility through a referral, no need to ask but record how lead was generated.}*

1. From recruiter's database
2. Referral that the recruitment company found
3. Called in, learned about if from flyer in model home or from a realtor
4. Other (specify) _____

Invitation

Our company is assembling a panel of consumers to participate in a small group discussion regarding buying a home and other related topics. We would like to include you in our discussion so we can hear your opinions. We are not selling anything. The discussion will last about **1 hour and 45 minutes**. As a token of our appreciation for your time and input, you would receive **\$100**. Could you take part in a group scheduled for Tuesday, November 11th at...?

5:30 – 7:15 pm – a light dinner will be provided
OR **7:45 – 9:30 pm –**

If yes, explain where the focus group will be held & fill out name & address and circle group they will attend:

May I have your name and address so we can send you a confirmation letter that will verify the date, time and place of the meeting?

NAME _____

STREET ADDRESS _____

CITY _____ STATE _____ ZIP _____

DAY PHONE _____ EVENING PHONE _____

EMAIL _____

CIRCLE GROUP ATTENDING: **5:30 pm** **7:45 pm**

We are only asking a few people to take part in this discussion, so your presence is very important. If something comes up and you are unable to attend please give us a call. Our phone number is.... Please arrive 10 minutes early so we can check you in, and to give you a chance to have some refreshments before the discussion starts.

Thank you for your time. We look forward to seeing you on Tuesday, November 11th!

Recruited By: _____

Confirmation Letter Sent: _____ Reminder Call Made: _____

Appendix B

Discussion Guide

**NEEA Home Buyers Focus Groups
Seattle, Spokane & Boise
Discussion Guide – Final**

Overall objective: What is the right strategy if the goal is energy efficiency? Is Energy Star still the appropriate name/approach to the market?

I. Introduction (5 minutes)

- A. Moderator introduction
- B. Purpose & format of the group
- C. Ground rules:
 - ♦ One person speak at a time;
 - ♦ Be candid; and
 - ♦ Allow everyone an equal opportunity to participate in the discussion.
- D. Participant introductions:
Please briefly introduce yourself to the group and tell us a little about yourself.

II. Most Important Attributes when Buying Home (10 minutes)

All of you have in common that you either recently purchased a home or are considering purchasing a home in the next year or so.

- ♦ What were/are the 3 or 4 most important attributes that you were looking for in a home—not the location or the schools, but specifically what did you want in the home itself? Why?
- ♦ What other factors or attributes were important to you even if they weren't at the very top of the list?

III. Environmental Considerations (30 minutes)

- A. Unaided
 - ♦ Did you give any thought to environmental attributes or considerations? (*Think about other ways of introducing this idea. What is the right word(s)?*)
 - ♦ Specifically, what environmental factors did you consider? Why? (Probe for specifics.)
 - ♦ Were there any other environmental factors you considered?
 - ♦ Where in the hierarchy of important attributes did environmental considerations factor in? Were they a “must have” a “nice to have” or what?
 - ♦ If important, why? What is the advantage or benefit of environmental factors?
 - ♦ If you did not consider environmental factors, why not?
- B. Aided perceptions (Discuss environmental topics not already mentioned. Rotate the order that topics are addressed.)

1. Green

- ♦ Did you give any thought to buying a “green” home? Why or why not?
- ♦ Specifically, what does it mean to buy a green home? What were/are you looking for? Why? (Probe for how different participants define what it means to buy a green home.)
- ♦ Where in the hierarchy of important attributes did buying a green home factor in? Was it a “must have” a “nice to have” or what?
- ♦ If important, why? What is the advantage or benefit of buying a green home?
- ♦ What did/are you doing to help determine if homes you considered buying were green?

2. Sustainable

- ♦ Did you give any thought to sustainable? Why or why not?
- ♦ Specifically, what does sustainable mean when buying a home? What were/are you looking for? Why?
- ♦ Where in the hierarchy of important attributes did sustainability factor in? Was it a “must have” a “nice to have” or what?
- ♦ If important, why? What is the advantage or benefit of sustainability when buying a home?
- ♦ What did/are you doing to help evaluate the sustainability of homes you considered buying?

3. Energy Use

- ♦ Did you give any thought to energy use? Why or why not?
- ♦ Specifically, what were you looking for in terms of energy use? Why? (Probe to understand if they were specifically concerned about purchasing an energy efficient home or if they were thinking of energy use in other terms.)
- ♦ How important is/was energy use/energy efficiency to you? Was it a “must have” or a “nice to have” or what?
- ♦ If important, why? What is the advantage or benefit of keying in on energy use/energy efficiency?
- ♦ What did/are you doing to help evaluate the energy use/energy efficiency of homes you considered buying?

C. Compelling Environmental/Green Factors

- ♦ When you think about factors that make a home environmentally-friendly or green or sustainable, what is most important to you? What factors are most compelling as you decide on the home for you?
- ♦ If not mentioned, probe very briefly on some of the following, but mostly listen to their words:
 - Building materials;
 - Air quality;

- Water use;
- Energy efficiency;
- Reducing carbon footprint;

D. Definition of green, sustainability and energy efficiency

- ♦ These days you hear a lot about “green” and “sustainability” and such and we’ve talked about it little tonight, but what do these really mean to you in the context of purchasing a home? How do you define it?
 - What does “green” mean to you when you think about buying a house?
 - What does “sustainability” mean to you when you think about buying a house?
 - How about energy efficiency, what does that mean to you in the context of buying a home?
- ♦ How do they relate to each other? What takes precedence in the decision making process? What is most compelling?

IV. Reactions to Specific Benefits (25 minutes)

Benefit statements are still under development

A. Evaluate whole house benefit statements

Please take a few minutes to look over these statements. Assuming you are in the market for a new home, which of these statements is most compelling to you; which is most important? Please select the 3 you consider most important, rank ordering them 1st most important, 2nd most important and 3rd most important. Then select the one that is least important to you.

Whole House Benefits statements:

- Better for the environment.
 - Decreases your overall carbon footprint.
 - Saves money on utility bills.
 - Improved air-quality.
 - Increased resale value of the home.
 - All around comfort.
- ♦ Which one did you rate #1? (Show of hands to see which rated highest with the most people. Discuss top ranked first.) Why did you pick that as most important to you?
 - ♦ How did others feel about this statement? Even if you didn’t pick it as #1, is it important to you? Why or why not?
 - ♦ When you think about buying a home and all the qualities you would like that home to have—not just those listed here—is this compelling? Is it a “must have” a “nice to have” or a “doesn’t matter”? Why?
 - ♦ Is this a credible statement? If you saw a home being marketed with this message, would you believe it? If no, why not?
 - ♦ How did you rate _____?

Repeat discussion for each benefit

B. Strongest component benefit statements

Here is another set of statements I'd like you to consider. These statements pertain to particular aspects of a house rather than overall attributes. Just as before, I'd like you to select the three statements that are most important to you as you are deciding which home to purchase. Then select the 2 that are least important to you.

- High Performance Heating & Cooling Systems reduce utility costs by up to 30%.
 - Efficient whole-house insulation provides improved indoor comfort all year round.
 - Carpeting is tacked rather than glued with adhesive to reduce off-gas over time.
 - Low-toxic interior paints reduce toxins, thereby improving indoor quality in a home.
 - Preserves old-growth forests by using renewable building materials like bamboo, cork or wheatgrass.
 - Efficient appliances can reduce your utility costs by up to 20%.
 - Enhanced water conservation by using rain barrels to collect rainwater from the roof for landscape irrigation.
 - Advanced framing techniques helps reduce construction costs.
 - Tightly sealed ducts improve indoor air quality.
-
- ♦ Which one did you rate #1? (Show of hands to see which rated highest with the most people. Discuss top ranked first.) Why did you pick that as most important to you?
 - ♦ How did others feel about this statement? Even if you didn't pick it as #1, is it important to you? Why or why not?
 - ♦ When you think about buying a home and all the qualities you would like that home to have—not just those listed here—is this compelling? Is it a “must have” a “nice to have” or a “doesn't matter”? Why?
 - ♦ Is it a credible statement? If you saw a home being marketed with this message, would you believe it? If no, why not?
-
- ♦ How did you rate _____?
Repeat discussion for each benefit

V. Labels/Brands & EPS (25 minutes)

A. Awareness of Labels/Brands (The order will be rotated across group.)

Built Green
Earth Advantage
Energy Star Homes
LEED (U.S. Green Building Council)
NAHB Green Builders (National Association of Home Builders)

- ♦ If you saw “Built Green” associated with a home you were considering buying, what would that mean to you?
- ♦ Are you familiar with Built Green? Is that a name you’re aware of? (Show of hands)
- ♦ If a home is Built Green, is that a positive for you, a negative or neutral? Why?
- ♦ What does it mean if a home is Built Green? Describe it as best you can. (Ask both those familiar and unfamiliar with brand to describe their impressions/perceptions.)
- ♦ Is Built Green a credible designation? Why or why not?
- ♦ What are the advantages of a Built Green home?
- ♦ What are the disadvantages?

Repeat for each label/brand

Note: Listen to see if they perceive a fuller array of attributes associated with other brands than they associate with Energy Star Homes.

B. Evaluate information from Labels/Brands (The order will be rotated across group.)

Built Green
 Earth Advantage
 Energy Star Homes
 LEED (U.S. Green Building Council)

Please take a few minutes to look it over the information. As you are looking at it, circle any words or phrase that you like—anything important or compelling, and cross out any words or phrase you don’t like or that lack credibility—anything that turns you off.

- ♦ Overall, what do you think of this information?
- ♦ What do you like about it? What words or phrases did you circle? Why?
- ♦ What don’t you like about it? What words and phrases did you cross out? Why?

C. Compare across labels/brands

- ♦ Of all of the labels/brands that we talked about, which one would you feel best about being associated with a home you were buying? Why?
- ♦ Is there any difference in the credibility of these brands/labels? If so, which is most credible? Why?
- ♦ What are the key differences between brands?
- ♦ What if Energy Star Homes was to partner with another brand? Which brand would be the best partner for Energy Star? Why?

VI. Evaluate Energy Performance Scale

Pass out EPS handout and give participants a few minutes to look it over

- ♦ What is this? Does it making sense to you?
- ♦ What is it telling you?
- ♦ Probe for comprehension and points of confusion.
- ♦ If you are looking for a home, is this useful? Does it have value to you? Why or why not?

VII. Wrap-up (5 minutes)

Before dismissing the group, the moderator will confer with research observers to determine if there are any additional questions that need to be addressed.

- ♦ Do you have any final thoughts or suggestions?

Appendix C

Green Brands & Labels Information Evaluated

EarthAdvantage

Owning a certified Earth Advantage home doesn't mean giving up on comfort or quality. It means adding value to your home, reducing your energy bills and living in year 'round comfort. And you can rest easy knowing you're conserving energy and resources, improving your indoor air quality and being environmentally responsible.

What is LEED?

The Leadership in Energy and Environmental Design (LEED) Green Building Rating System™ encourages and accelerates global adoption of sustainable green building and development practices through the creation and implementation of universally understood and accepted tools and performance criteria.

LEED for Homes is a rating system that promotes the design and construction of high-performance green homes. A green home uses less energy, water and natural resources; creates less waste; and is healthier and more comfortable for the occupants. Benefits of a LEED home include lower energy and water bills; reduced greenhouse gas emissions; and less exposure to mild, mildew and other indoor toxins. The next cost of owning a LEED home is comparable to that of owning a conventional home.

Inland Northwest BUILT GREEN

Parent Organization

Spokane Home Builders Association

Area Served

Spokane, Grant, Whitman, Ferry, Lincoln, Pend Oreille, & Stevens Counties

Mission

The Inland Northwest BUILT GREEN program began in 2007 as a partnership between the Spokane Home Builders Association, Avista Utilities, the Washington State Department of Ecology, and other public and private partners. We are proud to bring this cutting edge, industry leading program to Spokane and the Inland Northwest.

What is BUILT GREEN?

BUILT GREEN is an environmental building program proven to provide you with a healthier, more efficient house. BUILT GREEN homes are attractive, comfortable, durable, environmentally-friendly – and save you money to own and operate. Participating BUILT GREEN builders craft these resource-efficient homes to exceed building codes to provide homeowners with years of healthy, quality living, while protecting our precious Northwest environment.

Programs award the BUILT GREEN certificate to a building project when it meets defined green building criteria summarized on a Checklist. Projects receive one to five “Stars,” depending on the number of points they achieve. Each local program has its own Checklist, designed to reflect local issues and priorities.

Your interest in a green, money-saving home is what builds support for BUILT GREEN. You can help to create positive change in the building industry by informing yourself, asking questions, and telling builders and developers that you want your next home or remodel to be BUILT GREEN. We’re here to help you get the information you need to make good green choices!

Is a BUILT GREEN Home Right For You?

- Less expensive to operate. Energy- and water-efficient features mean you’ll save money each month on operating costs, and rate hikes will impact you less.
- Healthier and more comfortable. Well-designed ventilation, a strategic choice of materials, and efficient heating and cooling with a tightly sealed, well-insulated building envelope mean you will breathe fresher air and have fewer drafts.
- Durable and reduces maintenance. Careful selection of a building’s materials, its design, and its placement on its site means fewer replacement costs and effort.
- Quality-built. Professionals who care enough to participate in the BUILT GREEN program do careful work and give you outstanding value for your investment.

What is an ENERGY STAR Home?

ENERGY STAR® homes are better built, more comfortable homes that save you money on your utility bills every month. Every Northwest ENERGY STAR certified home has been built to meet energy efficient guidelines set forth by the Environmental Protection Agency. From energy efficient windows to advanced heating and cooling systems, ENERGY STAR homes guarantee greater savings, comfort and peace-of-mind. Simply stated, ENERGY STAR homes are **built better for you and the environment.**

Better for your pocketbook.

ENERGY STAR homes are at least 15% more efficient than code-built new homes, making them some of the most energy efficient homes on the market today. By using less energy, ENERGY STAR homes cost less to operate, which means more money in your wallet month after month. Combined with potential higher resale values, ENERGY STAR homes represent a smart investment.

Better heating and cooling.

Enjoy a home with even temperatures throughout the year. Tightly-sealed ductwork, high-performance windows and properly installed insulation make your home more comfortable.

Better for the environment.

The energy used by American homes accounts for 20% of total U.S. carbon dioxide (CO₂) emissions. ENERGY STAR certified homes perform better than standard code-built homes and require less energy for heating, cooling and hot water. This amounts to reduced air pollution and a healthier environment for everyone.

Better for you.

ENERGY STAR Homes have Healthier indoor air, as performance-tested ductwork keeps the air inside your home clean by reducing the possibility of drawing unwanted air from your home's attic, basement, crawl spaces and garage.

Your builder is building for **you** if they are building ENERGY STAR Certified Homes.

To learn more about what makes a home an ENERGY STAR Home, visit our ENERGY STAR Home Features Overview section.

Appendix D

Energy Performance Score



ENERGY PERFORMANCE SCORE

How does your home compare on energy efficiency and carbon emissions?

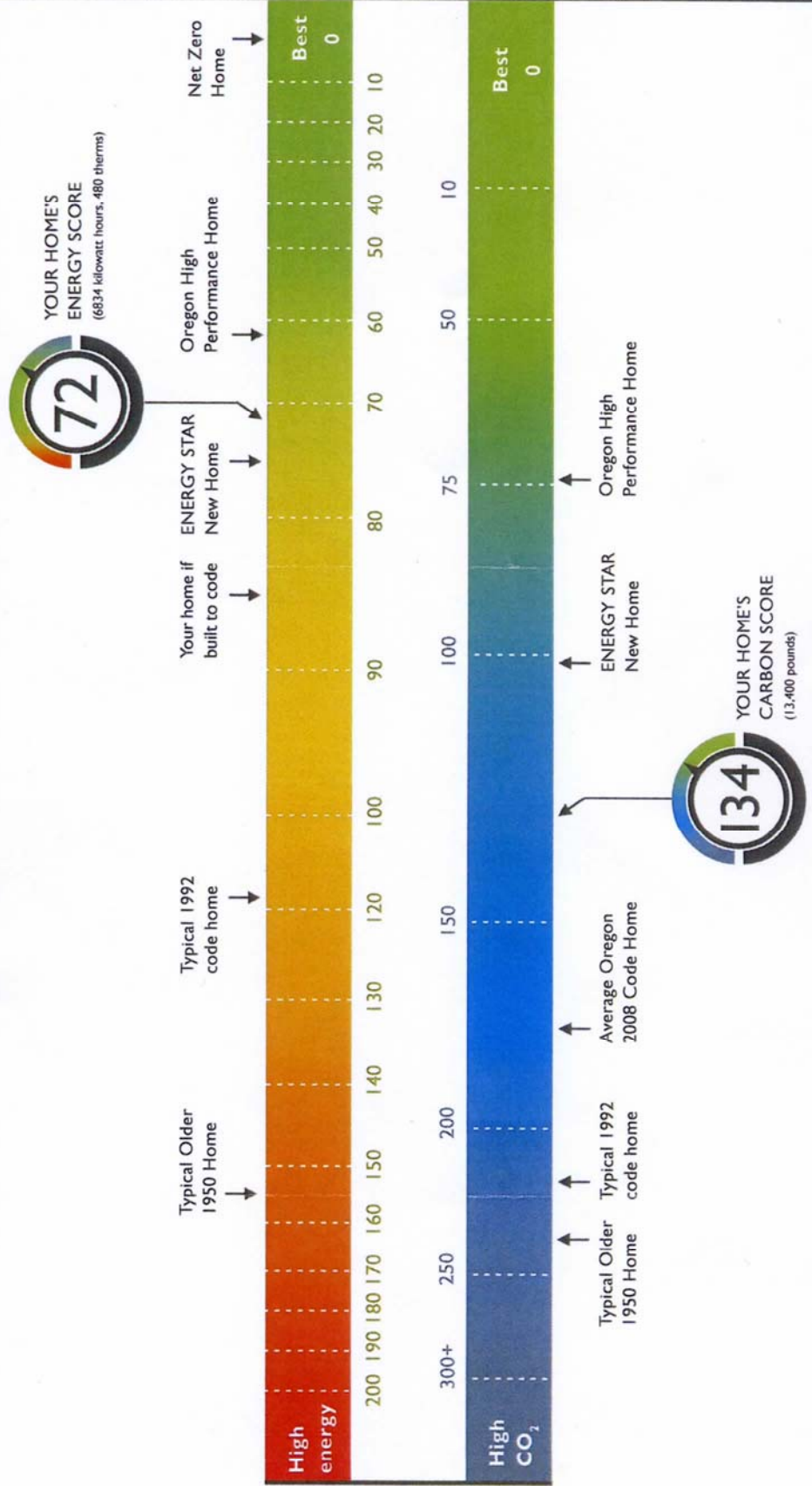


Energy Performance

Energy score tells you how much electricity, gas and/or oil your home consumes. The higher your score, the more energy your home uses and the higher your energy costs will be.

Carbon Footprint

Carbon score tells you how much carbon dioxide is a major contributor to global warming. The lower your score, the less your home contributes to global warming.



Address:	00000 SW Pilatine St. Portland, OR 97292
Estimated annual energy usage:	Electric (kWh) 6834 Natural gas (Therms) 480
Estimated average monthly energy costs*:	\$1.40

*Actual energy costs may vary.

