



# **Massachusetts New Homes with ENERGY STAR<sup>®</sup> Mystery Shopping**

## **FINAL REPORT**

**October 29, 2010**

**Submitted to:  
Joint Management Committee**

**Submitted by:  
NMR Group, Inc.**

Contents

**EXECUTIVE SUMMARY ..... I**

    BACKGROUND ..... I

    FINDINGS..... I

    CONCLUSIONS ..... II

        Be a Star with ENERGY STAR ..... II

        Marketing Focal Points..... II

        Missed Marketing Opportunities ..... III

    RECOMMENDATIONS ..... IV

**1 INTRODUCTION..... 1**

    1.1 STUDY OBJECTIVES..... 1

        1.1.1 Be a Star with ENERGY STAR Trainings ..... 2

**2 METHODOLOGY ..... 2**

    2.1 SAMPLE .....2

    2.2 AGENT SELECTION .....3

    2.3 HOUSING AND DEVELOPMENT DETAILS .....5

    2.4 MYSTERY SHOPPER APPROACH.....6

**3 MARKETING ENERGY EFFICIENCY AND ENERGY STAR..... 7**

    3.1 INITIAL DISCUSSION OF ENERGY EFFICIENCY AND ENERGY STAR.....7

    3.2 DISCUSSION OF THE BENEFITS OF ENERGY EFFICIENT AND ENERGY STAR HOMES .....8

        3.2.1 Lower Energy Bills ..... 8

        3.2.2 Indoor Air Quality..... 8

        3.2.3 More Comfortable Home ..... 9

        3.2.4 Durability of ENERGY STAR Homes ..... 9

        3.2.5 Energy Efficiency Must Be Built into the Home from the Start..... 9

        3.2.6 Positive Point of Resale ..... 10

        3.2.7 Good for the Environment ..... 10

        3.2.8 Important Even Though You Can’t See It ..... 10

    3.3 DISCUSSION OF THE ENERGY STAR BRAND .....10

**ENERGY STAR Homes Mystery Shopping—Final**

3.3.1 ENERGY STAR Brand Advantage and Resale Value ..... 11

3.3.2 ENERGY STAR Third Party Rating System ..... 11

3.3.3 HERS Ratings Achieved..... 12

3.3.4 ENERGY STAR Level Achieved..... 12

3.3.5 ENERGY STAR Quality Control: Best Crews Work on ENERGY STAR..... 12

**4 SPECIFIC EQUIPMENT AND MEASURES ..... 13**

4.1 HEATING, VENTILATION, AND AIR CONDITIONING (HVAC) SYSTEMS .....13

4.2 DUCT SEALING .....13

4.3 WATER HEATERS .....14

4.4 INSULATION .....14

4.5 AIR SEALING AND VENTILATION.....15

4.6 TWO-BY-SIX CONSTRUCTION.....15

4.7 WINDOWS .....16

4.8 LIGHTING .....16

4.9 APPLIANCES .....16

**5 LABELING AND ENERGY STAR MARKETING MATERIALS ..... 17**

**APPENDIX A DESCRIPTION OF MYSTERY SHOPPING TRIPS ..... A1**

**APPENDIX B MYSTERY SHOPPING GUIDE.....B1**

**Tables**

**TABLE ES-1: SUMMARY OF AGENTS’ MARKETING OF ENERGY EFFICIENCY AND ENERGY STAR.....I**  
**TABLE 2-1: PRICE AND SIZE OF HOME ..... 5**  
**TABLE 2-2: DEVELOPMENT SIZE ..... 5**

**Figures**

**FIGURE 2-1: DISTRIBUTION OF VISITS BY HOUSING TYPE AND AGENT TRAINING ..... 3**  
**FIGURE 2-2: MYSTERY SHOPPING VISITS ..... 4**  
**FIGURE 2-3: SERVICE TERRITORIES..... 6**

## Executive Summary

This report presents the findings of ten mystery shopping visits to ENERGY STAR® homes, conducted by the NMR evaluation team in the summer of 2010. The results presented provide insight into the current marketing strategies of agents listing ENERGY STAR homes, and the effect of program-sponsored trainings on these marketing strategies.

## Background

Mystery shoppers visited ten real estate and sales agents at ENERGY STAR homes throughout eastern and central Massachusetts. Four of these agents had recently attended a program-sponsored *Be a Star with ENERGY STAR* training session, administered by ICF. The material presented at these trainings is aimed at educating agents on the benefits and marketability of ENERGY STAR homes. The majority of agents who attended the training did not have an ENERGY STAR home available for sale at the time of this evaluation. For this reason, the NMR team was able to mystery shop only four agents who had attended program-sponsored training.

## Findings

At the end of each on-site visit, mystery shoppers ranked the agents on a scale of zero to ten, where zero was “not at all willing or knowledgeable” and ten was “extremely willing or knowledgeable” in four areas. The four areas considered were knowledge of energy efficiency, knowledge of ENERGY STAR certification, willingness to use energy efficiency as a selling point, and willingness to use ENERGY STAR certification as a selling point. Table ES-1 shows the average score of non-trained and trained agents for all four categories. Agents who had attended training averaged a higher score in all four categories, with the largest difference coming in the “knowledge of ENERGY STAR certification” category.

**Table ES-1: Summary of Agents’ Marketing of Energy Efficiency and ENERGY STAR<sup>1</sup>**

Average Score	Agents Not Attending Training Session	Agents Attending Training Session
<i>Sample Size</i>	6	4
Knowledge of energy efficiency	6.0	6.8
Knowledge of ENERGY STAR certification	5.3	7.3
Willingness to use energy efficiency as a selling point	5.7	7.0
Willingness to use ENERGY STAR certification as a selling point	6.0	6.5

<sup>1</sup> It is important to note that with such a small sample size it is difficult to quantitatively assess the effect of the trainings on agents’ marketing of ENERGY STAR homes. For example, the difference between non-trained and trained agents’ scores would have been even greater if not for one particular sales representative who attended training, but demonstrated a general lack of interest in energy issues and failed to actively market ENERGY STAR benefits. This agent was ranked much lower than the three other agents who had attended a training session.

The agents visited by NMR mystery shoppers promoted the basic benefits and characteristics of ENERGY STAR homes, with a select few (including three who attended training) promoting some of the less apparent benefits of ENERGY STAR homes. All of the agents mentioned energy efficiency and ENERGY STAR without prompting, indicating that all the agents saw some value and marketability in the ENERGY STAR qualification of their listings.

## Conclusions

Following are the major conclusions from the mystery shopping visits.

### ***Be a Star with ENERGY STAR***

- ***Be a Star with ENERGY STAR*** trainings are sending the right message. Of the four agents who had attended a training session, three were very knowledgeable about energy efficiency and used efficiency as a marketing tool for their listings. These agents also seemed to have a solid understanding of the technical aspects of ENERGY STAR. Two of these agents talked about energy efficiency as much as any other topic during the visit. Mystery shoppers felt that all but one of the one of the agents who had attended training adequately marketed the energy efficient features of their ENERGY STAR listing.
- **Certain messages presented in the training materials were not utilized by agents during the on-site visits.** While agents who had attended the training stood out from those who had not, there were still areas of missed opportunity for marketing ENERGY STAR. The following benefits of ENERGY STAR were not discussed in detail by agents who had attended training: resale value and brand advantage, increased indoor air quality, and environmental stewardship (see further discussion in “Missed Marketing Opportunities” section).

### **Marketing Focal Points**

- **Agents were pushing high-end kitchens, master suites, and open layouts first.** Such luxurious and modern amenities clearly sell well. Granite countertops, stainless steel appliances, and large master suites trumped efficiency and operating costs in the eyes of the agent, and likely the average homebuyer. The fact that most agents discussed these amenities before energy efficiency, however, may reflect an intentional marketing strategy wherein agents address the buyer’s top priorities first, and then discuss ENERGY STAR as an additional benefit.
- **Low utility bills were the “go to” marketing message of ENERGY STAR homes.** Agents promoted low utility bills more often than any other benefit of ENERGY STAR homes. Both agents who had and had not attended a training session tried to quantify the home’s expected energy consumption for the mystery shoppers by providing estimated energy costs, describing the experience of neighbors in the development, or comparing the home’s energy usage to less efficient, comparable properties. This makes sense as

low utility bills are an aspect of ENERGY STAR homes that homebuyers can identify with.

- **Agents marketed ENERGY STAR homes based on their practical benefits to the homebuyer, rather than environmental or ideological reasons.** Just as agents promoted luxurious amenities, they also focused almost entirely on the practical ways that energy efficiency benefits home buyers: low utility bills, quality of construction, and to a lesser extent, comfort and resale value.
- **Most agents clearly described the ENERGY STAR certification process to mystery shoppers.** Most of the agents used the certification process as a way to market the quality and quality control of ENERGY STAR homes. This is an important message to send to homeowners, and this is an area where agents performed well.
- **Agents who attended training demonstrated improved knowledge of the technical and mechanical components of ENERGY STAR homes, including HVAC and insulation.** Half of the non-trained agents failed to mention insulation, for example, indicating excellent opportunities for future trainings to emphasize the importance of this topic to agents.

### Missed Marketing Opportunities

- **The brand advantage and resale value of ENERGY STAR homes were overlooked by agents.** Most agents, including those who had attended training, failed to mention to mystery shoppers that ENERGY STAR qualification may increase the resale value of a home.
- **Agents did not market the HERS rating of ENERGY STAR homes.** None of the agents visited mentioned the HERS rating to mystery shoppers. Many of the homes visited were under construction and likely not yet certified, but nine of the ten homes visited were located in ENERGY STAR developments where there is a common range of HERS ratings. (HERS indices for the four visited homes that had passed their final inspection ranged from 63 to 77.<sup>2</sup>)
- **Agents did not discuss the improved indoor air quality in ENERGY STAR homes.** While some agents pointed out mechanical ventilation to mystery shoppers, or discussed negative consequences that come from well-sealed homes with inadequate ventilation, none identified ENERGY STAR homes as having improved indoor air quality.
- **Agents did not market the environmental benefits of ENERGY STAR homes.** Only two agents, one who had attended training and one who had not, mentioned the environmental benefits of ENERGY STAR homes to mystery shoppers. This is surprising as the public and media have become increasingly interested in environmental issues over the past few years.
- **Agents did not discuss ENERGY STAR appliances.** Only one agent mentioned ENERGY STAR appliances, which is particularly surprising given that ENERGY STAR

---

<sup>2</sup> Only four homes had completed the final inspection as of the date of this report.

is much better known as a marketing tool for appliances and electronics than it is for homes.

- **The ENERGY STAR brand name was not fully utilized by agents as a marketing tool.** All of the agents mentioned the fact that the home was ENERGY STAR qualified, and most described in some detail the benefits of an energy-efficient home. However, most agents talked about energy efficiency and ENERGY STAR interchangeably, and only a few heavily emphasized the significance and value of the ENERGY STAR brand name. Agents often implied the merit of the ENERGY STAR brand by discussing the independent third party certification process, but they failed to make clear to mystery shoppers the actual value of the ENERGY STAR brand name. In ten visits, only one agent mentioned that the appliances of the home would be ENERGY STAR qualified.

## Recommendations

Following are recommendations based on the mystery shopping visits.

- **Continue *Be a Star with ENERGY STAR* trainings.** There was a noticeable difference in the knowledge of agents who had attended the training compared to those who had not. The agents who had attended training seemed to understand and market more aspects of their ENERGY STAR listings, and generally spent more time discussing the energy efficiency features of the home.
- **Expand trainings to include builders.** Agents of developments, either in-house sales representatives or independent real estate agents, need more education on the benefits of ENERGY STAR homes. Builders are well versed in their homes' specific energy efficiency measures and the benefits of those measures, but that knowledge often was not passed on to the developments' sales representatives. Builders might benefit from training that provides guidance on how to train their own sales representatives to fully market the benefits of ENERGY STAR homes.
- **Focus a portion of trainings on the HERS index and HERS ratings.** All ENERGY STAR homes are not created equal, and agents should take advantage of the increased marketability of homes with low HERS ratings.
- **Encourage agents to attend all of the inspection stages of an ENERGY STAR home.** This will ensure that agents have a better understanding of both the components (e.g. insulation and duct work) of an ENERGY STAR home, and the thoroughness of the certification process. In addition, by attending the various inspection stages, agents are likely to gain a better understanding of the technical terms (e.g. blower door and duct blaster) that are associated with ENERGY STAR homes.
- **Encourage agents to walk through an ENERGY STAR brochure or fact sheet with potential homebuyers.** This simple step will guide potential buyers through the benefits of ENERGY STAR qualified homes, providing technical reference where needed, and it



will ensure that the major bullet points of ENERGY STAR homes are covered during every showing.

- **Encourage agents to build on consumers' preexisting knowledge of ENERGY STAR for appliances and electronics, emphasizing the value of the ENERGY STAR brand name.** Most consumers are already familiar with the ENERGY STAR brand, as it is commonly used on household appliances and electronics. Agents might have better success marketing these homes by emphasizing to buyers that the ENERGY STAR label for homes is just an extension of the ENERGY STAR label they already know and trust, found on appliances, heating and cooling equipment, lighting and electronic products in their homes.

Sam Rashkin, the EPA's National Director for ENERGY STAR homes, put it best at his ENERGY STAR Version 3 presentation, "Responding to the New Normal,"<sup>3</sup> "Design and location trump." When it comes to selling homes, design and location are the key factors influencing a homebuyer's purchase decision. The benefits of energy efficiency and ENERGY STAR homes are what *should* separate an ENERGY STAR home from comparable homes on the market. As discussed, there is room for improvement in the marketing of ENERGY STAR homes. The training has clearly made a difference, but more is needed for builders and agents to extract the full value of marketing the ENERGY STAR status of homes in the current real estate market.

---

<sup>3</sup> Sam Rashkin (2010), *JMC Training: Responding to the New Normal*. July 30<sup>th</sup>, 2010.

# 1 Introduction

This document summarizes the mystery shopping conducted by the NMR Group evaluation team in July and August of 2010 for the Joint Management Committee of the Massachusetts New Homes with ENERGY STAR<sup>®</sup> Program (the Program). Members of the NMR evaluation team, posing as first-time homebuyers in search of quality homes, visited 10 ENERGY STAR homes across eastern and central Massachusetts.

## 1.1 Study Objectives

The mystery shopping trips were intended to explore whether or not real estate agents and sales representatives are knowledgeable about the energy efficient and non energy impact characteristics of ENERGY STAR homes, and whether or not they are marketing the homes based on these characteristics.<sup>4</sup> The mystery shoppers evaluated the agents in the following areas during their on-site visits:

- Awareness and promotion of energy efficiency and non energy impact characteristics in ENERGY STAR homes
  - Lower energy bills
  - Increased indoor air quality and comfort
  - Increased home durability
  - Positive point of resale for the home
  - Helps the environment
- Awareness and promotion of ENERGY STAR homes
  - Brand advantage
  - Certified by a third party (HERS raters)
  - HERS rating achieved by homes
  - ENERGY STAR levels achieved by homes
  - Quality control of third party verification

---

<sup>4</sup> Real estate agents can represent buyers or sellers, and often represent multiple listings. Sales representatives are in-house representatives who are generally part of the sales and marketing team for a multi-unit housing development. Throughout this report real estate agents and sales representatives will generally be referred to as “agents”, except where otherwise noted.

- Awareness and promotion of specific equipment and measures
  - HVAC equipment
  - Duct sealing
  - Water heaters
  - Insulation
  - Air sealing and ventilation
  - Two-by-six or other construction practices
  - Windows
  - Lighting
  - Appliances
- Prevalence and discussion of ENERGY STAR marketing materials

Immediately after each on-site visit was completed, mystery shoppers completed an evaluation form addressing each of these areas. Appendix A provides a detailed description of each mystery shopping trip, while the rest of the report presents findings in a summarized manner.

### 1.1.1 *Be a Star with ENERGY STAR* Trainings

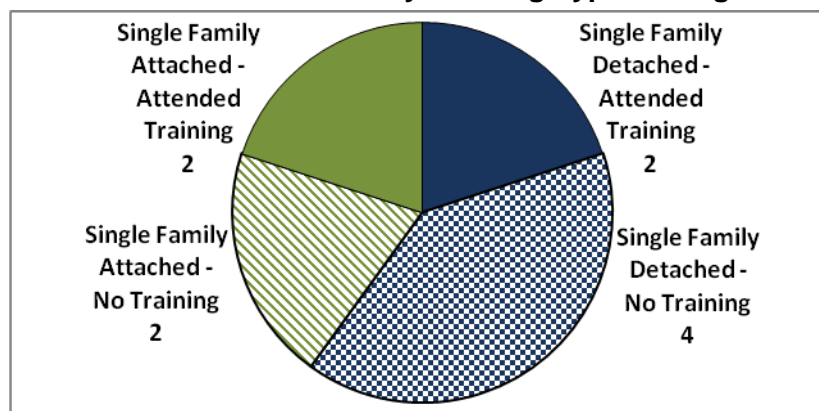
The Massachusetts New Homes with ENERGY STAR implementation contractor, ICF, has conducted *Be a Star with ENERGY STAR* training sessions in eastern Massachusetts to educate agents on the characteristics and marketability of ENERGY STAR homes. As of the date of this report, 253 agents had attended one of the ICF training sessions.

Of the ten homes visited by mystery shoppers, four were homes in which the primary selling agent had attended a *Be a Star with ENERGY STAR* training session. Throughout this report, as a means of assessing the effect of these trainings, the results from agents who had attended a training session are compared to the results from those who had not.

## 2 Methodology

### 2.1 Sample

Mystery shoppers visited 10 ENERGY STAR homes in eastern and central Massachusetts. As previously mentioned, four homes were listed by agents who had attended a *Be a Star with ENERGY STAR* training session, while the other six agents had not. Figure 2-1 shows the distribution of on-site visits by housing type and agent attendance at a training session.

**Figure 2-1: Distribution of Visits by Housing Type and Agent Training<sup>5</sup>**

## 2.2 Agent Selection

ICF provided NMR with a list of properties certified as ENERGY STAR homes from January 2009 to May 2010. The addresses provided in these lists were used to match agent listings of ENERGY STAR properties.

In order to assess the impact of ICF’s training sessions, the NMR team selected a sample of agents who had attended a training session and had an ENERGY STAR home available on the market. NMR was provided with a list of 253 agents who had attended one of the training sessions. NMR cross-checked this list of agents with ICF’s list of ENERGY STAR homes, reviewed these agents’ websites for ENERGY STAR listings, and cross-checked their names with homes listed on the Multiple Listing Service (MLS) to identify any ENERGY STAR homes they represented. Out of the 253 agents who had attended a training session, NMR was able to identify only eight (3%) that actually had an ENERGY STAR home for sale. This small number is likely due to the fact that 52% of the attendees at the trainings came from one company which required its agents to attend. These attendees received continuing education credits and the option to download the ENERGY STAR logo from the EPA website and use it in their materials. The trainings were held through the Greater Boston Association of Realtors (GBAR) and the company which required attendance is also in the greater Boston area where relatively few single family ENERGY STAR homes are located. Four of these agents, with only two listings (two agents per listing), were excluded from the sample due to the price of the homes (greater than \$950,000). One agent’s materials referred to her as “ENERGY STAR certified”. The remaining four agents were part of the final mystery shopping sample.

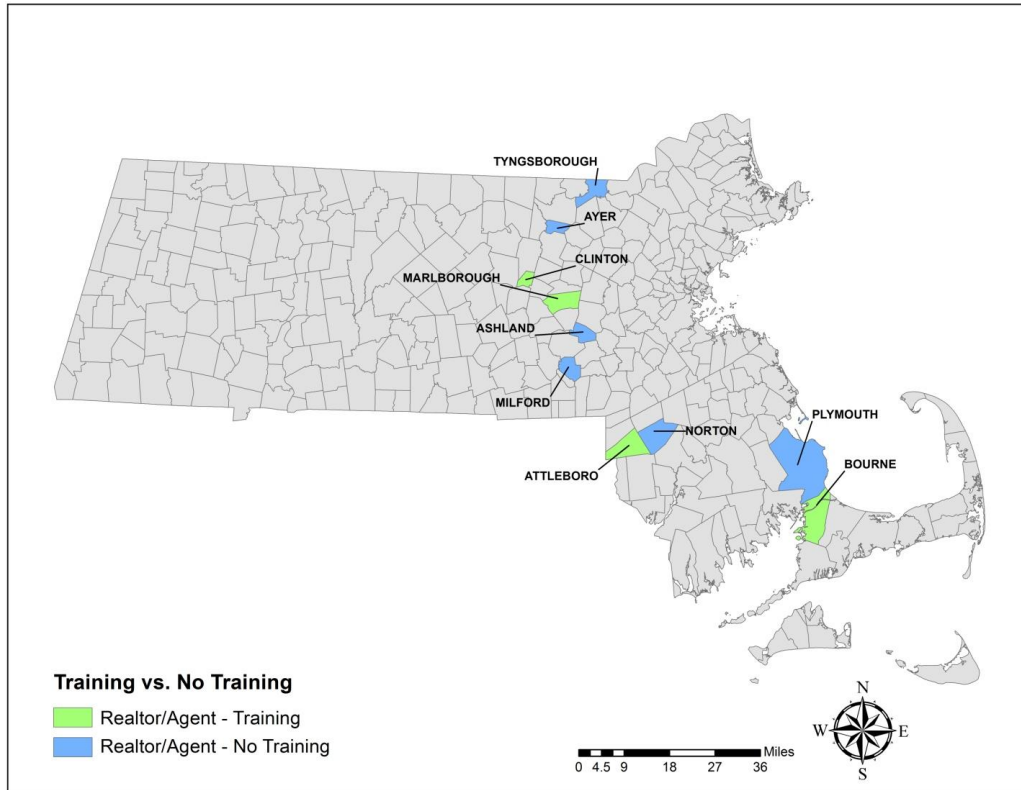
The rest of the mystery shopping sample was composed of six agents who had not attended the training, but did have ENERGY STAR homes on the market. NMR selected agents who were the primary contact for a multi-unit ENERGY STAR development, or the sole listing agent for the property. Some spec builders elect to use real estate companies and real estate agents to market and sell their homes, while others have their own sales staff market their homes. Agents of multi-

<sup>5</sup> All tables and figures in this report are presented as unweighted counts.

unit developments are likely to be familiar with the homes in the development, as they have often already sold a number of them and are likely the person who most frequently markets the homes and oversees open houses, making them good candidates for the mystery shopping visits.

Figure 2-2 shows the geographic distribution of the mystery shopping visits. Green towns represent agents who attended a training session, while blue towns represent agents who have not.

**Figure 2-2: Mystery Shopping Visits**



## 2.3 Housing and Development Details

All of the homes visited by mystery shoppers were single-family spec homes. Six of the on-site visits were conducted at single-family detached homes, while four were conducted at single-family attached homes. Table 2-1 shows the price range and size of the homes that were mystery shopped.

**Table 2-1: Price and Size of Home**

<b>Price</b>	<b>Single-family Detached</b>	<b>Single-family Attached</b>
<i>Sample Size</i>	6	4
Less than \$300,000	--	2
\$300,000 to \$349,999	1	--
\$350,000 to \$399,999	2	2
\$400,000 to \$449,999	1	--
More than \$450,000	2	--
<b>Square Feet</b>	<b>Single-family Detached</b>	<b>Single-family Attached</b>
<i>Sample Size</i>	6	4
Less than 1,800	1	1
1,800 to 1,999	2	1
2,000 to 2,199	1	1
2,200 to 2,399	--	1
More than 2,399	2	--

Table 2-2 shows the various sizes of the developments that were visited by mystery shoppers. Nine out of the ten homes visited were located in a development. The developments ranged in size from about 15 homes in the smallest development to more than 150 homes in the largest development.

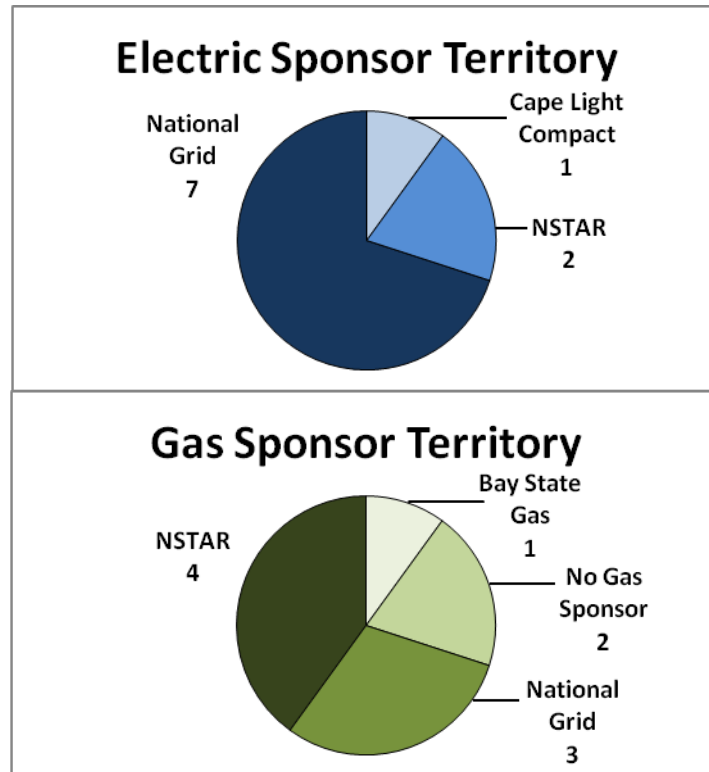
**Table 2-2: Development Size**

<b>Number of Homes in the Development</b>	<b>Homes Visited</b>
<i>Sample Size</i>	10
Less than 20	1
20 to 50	4
More than 50	4
Not located in development	1

There was an even split between real estate agents working for a real estate company and in-house sales representatives, with five homes being listed and marketed by each.

Figure 2-3 shows the distribution of homes by electric and gas service territory. Most of the homes used gas for heating: eight used natural gas, one used propane, and one used oil.

**Figure 2-3: Distribution of Visits by Service Territory**



## 2.4 Mystery Shopper Approach

NMR mystery shoppers posed as first time home buyers during their on-site visits to ENERGY STAR homes. The on-site visits were located in a range of towns and communities. NMR developed a consistent background story to provide to agents if necessary. Mystery shoppers indicated that they were in the computer industry, going into more detail when appropriate, and that they planned to telecommute from their new home. Mystery shoppers said that they had family in the neighboring town if they were asked why they were moving to the area.

Once on site, mystery shoppers showed interest in the following aspects of the home:

- Good quality construction
- Good quality equipment
- Good location
- Layout of rooms
- Affordability
- Cost of living there each year

The mystery shoppers expressed additional interest in energy efficiency and ENERGY STAR when these topics were mentioned by the agent.

### **3 Marketing Energy Efficiency and ENERGY STAR**

Mystery shoppers identified how quickly agents brought up energy issues and recorded what agents said about energy efficiency and ENERGY STAR homes, noting the extent to which they used energy efficiency or ENERGY STAR as marketing tools.

#### **3.1 Initial Discussion of Energy Efficiency and ENERGY STAR**

Demonstrating that they believe energy efficiency is of interest to homebuyers, all ten agents brought up the benefits of energy efficiency or ENERGY STAR homes without any prompting from the mystery shoppers (though the extent to which the agents focused on these topics varied), but only two agents brought up ENERGY STAR at the very start of the visit.

On average, agents brought up energy efficiency within eight minutes, and only one took longer than ten minutes (it took that agent, who had attended training, about fifteen minutes). Three agents (two of whom had attended training), brought up ENERGY STAR within five minutes. Half of the agents took ten or more minutes to first mention the topics of energy efficiency or ENERGY STAR (including two of the four who attended training).

In most cases, energy efficiency or ENERGY STAR was not among the first topics discussed by the agents. Agents usually began the visit with a discussion of the home's exterior, site, neighborhood, finishes, layout, or the home's main rooms, and almost always mentioned amenities such as high-end kitchens, master suites, and open layouts before energy efficiency. Whether or not the agents attended the training, energy efficiency was typically first mentioned upon seeing some component of the home's mechanical systems, usually the furnace or water heater. Only one real estate agent, who attended training, started to talk about ENERGY STAR in response to the mystery shopper's stated preference for a quality, affordable home.

In only two cases did agents mention energy efficiency or ENERGY STAR at the very start of the visit, even before seeing any mechanical systems. These two agents, only one of whom attended training, highly prioritized energy efficiency. Both mentioned the ENERGY STAR status of the home or development before discussing specific aspects of the house, and went into extreme technical detail about the features of ENERGY STAR homes.

The fact that most agents discussed other amenities before energy efficiency, however, may reflect an intentional marketing strategy wherein agents address the buyer's top priorities first, and then discuss ENERGY STAR as an additional benefit.



## **3.2 Discussion of the Benefits of Energy Efficient and ENERGY STAR Homes**

ENERGY STAR homes have a variety of energy-related and non-energy-related benefits, and agents will be able to sell them more successfully if they are better able to communicate these advantages to potential buyers. Mystery shoppers recorded what agents said about eight topics related to energy efficiency and ENERGY STAR homes.

### **3.2.1 Lower Energy Bills**

Every agent reported that an ENERGY STAR home would have low energy bills. In fact, this was the only benefit of ENERGY STAR homes discussed by every agent, whether or not they attended the training (only one non-trained agent required prompting before offering this information). Many agents failed to discuss a variety of the other benefits of ENERGY STAR homes, but the fact that they all mentioned reduced energy bills indicates they thought potential homebuyers would find this to be the most appealing aspect of ENERGY STAR homes, over environmental or comfort concerns.

Both agents who had and had not attended a training session tried to quantify the home's expected energy consumption for the mystery shoppers—seven out of ten agents provided estimated energy costs, described the experience of neighbors in the development, or compared the home's energy usage to less efficient, comparable properties. The agents who spent more time talking about ENERGY STAR were generally not hesitant to express how impressed they were with the low energy bills of ENERGY STAR homes.

### **3.2.2 Indoor Air Quality**

None of the agents reported that ENERGY STAR homes have improved air quality, and some identified negative aspects of well-sealed homes. It is possible that these agents either did not understand the air quality benefits of ENERGY STAR homes, or perhaps they thought this was not as important to potential homebuyers as other ENERGY STAR benefits. Six of the ten agents, including two who attended training, failed to mention air quality or the need for ventilation in any way.

Agents only discussed the air quality of ENERGY STAR homes by noting that well-sealed and insulated homes need mechanical ventilation to ensure sufficient fresh air is brought into the house—reduced allergy or asthma rates were never discussed. Three agents noted the presence of fans that were necessary to bring in outside air, and one agent noted that the HVAC system was designed to not pull in air that had recently been expelled, but didn't otherwise mention the air quality of an ENERGY STAR home. One agent who had attended a training session pointed out a fan on a timer and noted that one could get sick in a well-sealed home without proper ventilation.

A sales representative at a large ENERGY STAR development, who had not attended a training session, provided an inaccurate criticism of ENERGY STAR, stating that the Program has not

found a good balance between sealing a home tightly and the resulting need for mechanical ventilation. The agent said developers build well-sealed ENERGY STAR homes, but the sealed homes require fans that are on timers or running constantly, even if the residents open windows for fresh air. (This agent also noted the developer installs manual shut-off switches on these fans so end-users can decide to bypass fans that would otherwise run constantly.)

### **3.2.3 More Comfortable Home**

The training clearly improved the agents' willingness or ability to promote the comfort of ENERGY STAR homes. Agents who attended the training marketed the increased comfort of ENERGY STAR homes to mystery shoppers, while those who had not attended training sessions did not.

Four of the six agents who had not attended training sessions failed to mention home comfort entirely. The other two agents spoke about home comfort, but instead of reporting that energy efficient or ENERGY STAR homes were more comfortable, they reported that homes with multi-zone furnaces or with multiple furnaces and multiple A/C units were more comfortable, usually because they could better deal with a home with multiple living spaces.

The four agents who attended the training sessions, however, all mentioned the comfort benefits of an efficient or ENERGY STAR home, usually noting that drafts would be prevented, or that the home would be easy to heat or cool because of how well sealed or insulated it was. (One sales representative at a large ENERGY STAR development promoted comfort to a lesser extent, only noting that a well-sealed home would have a drier basement than normal, but otherwise failed to adequately market this benefit.)

### **3.2.4 Durability of ENERGY STAR Homes**

Agents rarely promoted ENERGY STAR homes as more durable than typical new construction, indicating opportunities for the training program to increase these agents' awareness of this topic. Only two agents, one who attended the training and one who did not, noted that the 2x6 framing used in the ENERGY STAR homes they were marketing resulted in a more durable house. Other agents often noted that their homes were well built, highlighting various materials and techniques used by their builders to create longer-lasting homes, but other than 2x6 construction, agents did not make a connection between energy efficiency and long-term durability.

### **3.2.5 Energy Efficiency Must Be Built into the Home from the Start**

With only one exception, agents did not explain to mystery shoppers that high levels of energy efficiency are most easily accomplished by incorporating measures and building techniques into the home during construction, rather than as a retrofit to existing construction. One development's sales representative, who did not attend training, described the construction process to the mystery shopper, and said that someone buying a home in that development could choose the level of insulation and the home would be built accordingly. The buyer could start at

ENERGY STAR levels as a baseline, and could choose from cellulose, fiberglass, or rigid foam wall insulation, up to the point where the buyer could essentially live in a “foam box,” if they so chose, something that would not be possible with an existing home without a complete rehab.

### **3.2.6 Positive Point of Resale**

Only three agents (two of whom attended the training) told mystery shoppers that ENERGY STAR certification increases a home’s resale value, meaning that several agents missed an easy opportunity to market an important feature of ENERGY STAR homes, particularly in the slow 2010 real estate market.

### **3.2.7 Good for the Environment**

Agents did not market ENERGY STAR homes based on their environmental benefits. The agents emphasized the practical benefits to the homebuyers of ENERGY STAR homes, such as lower utility bills, rather than highlighting any environmental benefit.

Only two agents, a real estate agent who had attended training and a sales representative who had not, said anything about environmentalism or being “green” during the mystery shoppers’ visits. The sales representative mentioned only in passing that the development’s energy efficient building techniques were a “way of being green,” and the trained real estate agent noted ENERGY STAR homes have greater resale value because more people are now concerned about the environment and minimizing their footprint.

### **3.2.8 Important Even Though You Can’t See It**

None of the agents discussed the idea that energy efficiency is important even though it’s not a visible feature in a home. The agents frequently discussed energy efficiency measures, most of which would not be visible once the homes were completed, but never made this specific observation about energy efficiency features.

## **3.3 Discussion of the ENERGY STAR Brand**

ENERGY STAR homes are subject to a rigorous third party certification process that requires homes to be built to a higher standard than the current building code. It is this process that separates ENERGY STAR homes from other residential new construction. While consumers are generally familiar with ENERGY STAR electronics and appliances, many homebuyers are unaware of the benefits of ENERGY STAR homes, providing an excellent marketing opportunity for agents to distinguish their ENERGY STAR listings from other homes on the market. However, most of the real estate professionals visited by mystery shoppers did not adequately emphasize the importance of the ENERGY STAR brand, perhaps reflecting either the need for more agent training, or indicating the relatively low familiarity of homebuyers with ENERGY STAR as a label for homes.

### 3.3.1 ENERGY STAR Brand Advantage and Resale Value

The majority of agents did not say that ENERGY STAR homes had a brand advantage or that the ENERGY STAR label specifically was a positive point for resale. Only three agents (two of whom attended the training) reported that ENERGY STAR and energy efficiency are valuable for the resale value of the home. One real estate agent who attended training provided one of the few explanations of why this contributed to resale value, namely that consumers are concerned about minimizing their environmental footprint.

One of the three agents mentioning the ENERGY STAR brand advantage, a sales representative at a large ENERGY STAR development who had not attended training, attempted to impress upon the mystery shopper the significance of the ENERGY STAR rating by stating that it was a “big deal” in new construction. However, this agent repeatedly referred to the home as “Five Star Energy Rated,” and failed to specifically use the ENERGY STAR brand name, despite having ENERGY STAR signs at the development, and despite prompting by the mystery shopper.

Agents should be pushing these points to prospective homebuyers, and would be aided in this effort if marketing of the ENERGY STAR label on homes was increased among consumers. Homebuyers are likely very concerned about resale value in light of the slow housing market at the time of this report.

### 3.3.2 ENERGY STAR Third Party Rating System

Most agents clearly described the ENERGY STAR certification process to mystery shoppers—only two agents (one who attended training and one who had not) failed to describe the certification process at all. Agents usually used this information to convey to the potential homebuyer that there was a significance and value to the ENERGY STAR label that could only be obtained through a defined certification process.

Eight out of ten agents explained to mystery shoppers that ENERGY STAR homes are certified; seven specified that the certification was performed by an independent third party; and six even described how an ENERGY STAR home must be checked by raters at different stages of construction.

The eight agents who clearly described the ENERGY STAR certification process were trying to reinforce the idea that the ENERGY STAR label was a meaningful certification that could be trusted, and indicated the home was built to high quality standards. Multiple agents noted it was in some way affiliated with the government or EPA, indicating that the program has strict standards that do not allow builders to cut corners.

This seems to be an area where agents, both those who have attended training and those who have not, are relatively well informed. Most of the agents used the certification process as a way to market the quality and quality control of ENERGY STAR homes. This is an important message to send to homeowners, and this is an area where agents performed well.

### **3.3.3 HERS Ratings Achieved**

None of the agents identified the home's specific HERS rating, and none identified the HERS rating process by name. One real estate agent who attended training incidentally provided the home's HERS rating in a follow-up email, as it was included on a specification sheet from the builder that the agent was using to highlight expected energy costs.

Not marketing HERS ratings could partially be attributable to the fact that many of the homes visited were still under construction and had not yet been rated. However, agents still mentioned ENERGY STAR certification on uncompleted and thus uncertified homes, indicating that the agents were likely unaware of the HERS rating system, or didn't think that mystery shoppers would highly value this information.

As the efficiency level of different homes can vary widely, agents selling homes with low HERS ratings should be using the HERS rating as a selling point for the home. Agents visited by mystery shoppers passed up the opportunity to discuss this marketing feature of their ENERGY STAR listings.

### **3.3.4 ENERGY STAR Level Achieved**

Only two out of ten agents (one who did and one who did not attend training) informed mystery shoppers of the home's ENERGY STAR tier. In both instances, the homes were expected to meet the Program's ENERGY STAR Tier II level.

The ENERGY STAR tiers of six of the other properties mystery shoppers visited were unknown at the time of the mystery shopping visits, so it is unclear if agents are generally unaware of the different tiers achievable or if agents only mention the different tiers when selling a home that is rated at a higher tier, which seems likely.

### **3.3.5 ENERGY STAR Quality Control: Best Crews Work on ENERGY STAR**

As was previously mentioned, many agents discussed that ENERGY STAR homes are tested and verified by third party HERS raters. Within that discussion, agents seemed to drive home the message of quality in ENERGY STAR homes. Most of the agents promoted the builder of the home and stressed that the builder does quality work, however none of the agents made the assertion that only the best builders work on ENERGY STAR homes.

## 4 Specific Equipment and Measures

It is important that agents understand and market the specific equipment, measures and building techniques/practices incorporated in ENERGY STAR homes. Mystery shoppers took note of how the agents promoted various aspects of the home, and how these were coupled with the broader marketing messages of ENERGY STAR homes.

### 4.1 Heating, Ventilation, and Air Conditioning (HVAC) Systems

All but one of the homes visited was heated by a forced hot air furnace; one home was heated with a hot water boiler. All of the homes either had central air conditioning (A/C) installed or were set up to have it installed.

In general, agents were aware that the homes had high efficiency HVAC equipment. Eight out of ten agents noted to mystery shoppers the presence of high efficiency heating equipment. All four agents who attended a training session discussed the efficiency of the HVAC system, and three out of four noted the furnace was ENERGY STAR qualified. In contrast, only three out of six agents who did not attend training discussed the efficiency of the HVAC equipment, and only one of these mentioned ENERGY STAR in relation to the HVAC system.<sup>6</sup> Two of the agents who did not attend a training session failed to discuss the heating equipment's efficiency. Central A/C was discussed by most of the agents, but it was not a focal point of their efficiency promotions, and was discussed more in relation to comfort, not energy usage.

All four agents who had attended training demonstrated a strong technical understanding of the HVAC systems and their efficiency, while only two agents who did not attend training demonstrated a similar level of technical knowledge. One trained agent went into detail about how the furnace in the home was capable of heating two zones separately due to a new damper technology, and went on to talk about how this allowed the home to be heated by one furnace as opposed to two. Finally, the only agent to go into detail on central A/C efficiency was one who had attended a training session. This agent talked about how the system was properly sized for the house, and specifically discussed the disadvantages of systems that were over or undersized.

### 4.2 Duct Sealing

Duct sealing was not a focal point for most of the agents. Only three agents, two of whom attended training, mentioned duct sealing during the on-site visits (though a fourth agent who did not attend training said the ducts were insulated to be more efficient). Two agents, one who had attended training and one who had not, discussed how duct sealing is one of the components tested by ENERGY STAR raters, with one mentioning that the rater uses a “blower fan” to

---

<sup>6</sup> However, while this agent said the furnace was one of the components that would be certified by the third party rater, this was the agent who failed to use the words “ENERGY STAR,” and said the home and its HVAC equipment were “Five Star Energy Rated.”

conduct the test.<sup>7</sup> One agent who attended training, went into great detail when describing the benefits of proper duct sealing, and discussed how the duct insulation and sealing materials work together to create a radiant barrier that keeps heated or cooled air from leaking out of the ducts. On the other hand, one sales representative at a large ENERGY STAR development, who did attend training, failed to mention this topic, even though the sales center’s printed materials addressed it, and despite prompting from the mystery shopper.

### 4.3 Water Heaters

Water heaters were mentioned by eight out of ten agents (only one of these required prompting before mentioning the water heater), indicating this is a common point of interest among potential homebuyers.

Six of the eight agents who talked about water heaters discussed the energy efficient characteristics of the equipment. Three out of the four agents who had attended training discussed the benefits of their homes’ efficient water heaters, while only three out of six agents who had not attended training sessions did so. Two agents, one who had attended training and one who had not, failed to discuss their homes’ water heaters, and an additional two non-trained agents described the water heater’s storage tank capacity (one noting that they could install a much larger tank to accommodate a large tub), but not its energy consumption.

However, while a higher percentage of agents who attended training described the efficiency of their homes’ hot water systems, on average, the three non-trained agents who described the efficiency of their water heaters did so with sufficient technical detail. One non-trained agent described the home’s indirect water heater as a more efficient system because water is heated through the boiler and the system does not require its own pilot light.<sup>8</sup> Three agents, one of whom attended training, mentioned that their listing had an efficient tankless water heating system, and the two non-trained agents specifically identified the brand name of the tankless system (Rinnai). An agent who attended training described the energy and comfort benefits of the tankless system, providing unlimited hot water for showers.

### 4.4 Insulation

Six out of ten agents mentioned insulation to mystery shoppers, with five discussing its efficiency characteristics. Four agents went into detail when describing the insulation of the home, explaining to mystery shoppers what type of insulation was installed in the home, how it was installed, and how it would benefit the buyer. After providing an in-depth explanation of the home’s various types of insulation and the physics involved in home insulation, one agent who attended training noted how informative the training had been on topics such as insulation

---

<sup>7</sup> This agent correctly described the process, but used incorrectly used the term “blower fan,” which is actually used to test home envelope leakage, not duct sealing.

<sup>8</sup> This is another instance of misinformation or incorrect terminology, where the agent referred to the indirect water heater’s lack of a “pilot light,” when the correct term is “burner.”

methods, and that it had “opened my eyes” to technical information the agent was only generally aware of before.

Three out of four agents who attended training discussed insulation, and did so with a clear understanding of the type of insulation used in the home, the practices used to install it, and how it related to the efficiency of the home. (The one sales representative who attended training but did not mention insulation also failed to mention a wide variety of other energy efficiency measures.) Only one agent who had not attended training conveyed an in-depth, technical understanding of the different types and levels of insulation and installation methods, and was able to confidently discuss the benefits, and consequences of thorough home insulation.<sup>9</sup>

None of the agents, including those who attended training, mentioned the R-value of the insulation in the home. One agent provided the mystery shopper with a spec sheet which specified the R-values in the home in a follow-up email, but the agent did not discuss these characteristics with the mystery shopper. This is surprising as R-values are the most identifiable characteristic of insulation.

Insulation is a key marketing point for ENERGY STAR homes, and a critical component in a home, greatly contributing to the home’s efficiency and comfort. It is surprising that four agents failed to mention insulation and none of the agents mentioned R-values, particularly after the mystery shoppers expressed interest in energy efficiency and ENERGY STAR homes, indicating excellent opportunities for future trainings to emphasize the importance of this topic to agents.

#### **4.5 Air Sealing and Ventilation**

When describing the energy efficiency of the home, all four agents who attended training, and seven out of ten agents overall, mentioned that the home was “tight” or “sealed.” Agents discussed air sealing in the same breath as other features of the home such as insulation, windows, and house wrap. After discussing the tight nature of the home, three agents, two of whom attended training, went on to discuss the ventilation methods that were being used. All three of these agents explained that some sort of ventilation was necessary in order to provide fresh air in such a tight house, and as discussed previously in the “Indoor Air Quality” section, three agents noted the presence of fans on timers that cycled on and off to draw in fresh air.

#### **4.6 Two-by-Six Construction**

Framing and other construction practices were not a focus of agents’ marketing strategies. Only three agents, two of whom attended training, mentioned two-by-six construction to mystery shoppers. All three agents talked about the strength and sturdiness of two-by-six construction,

---

<sup>9</sup> This was the sales representative for a large, ENERGY STAR development who, as discussed previously, provided a criticism of ENERGY STAR as not striking a good balance between excessive insulation and the resulting need for mechanical ventilation.



but only two agents tied this construction practice to ENERGY STAR, noting that two-by-six framing allows for more insulation in the walls.

## 4.7 Windows

As poorly functioning windows are a common source of unpleasant drafts in the Northeast, quality windows are appealing to prospective homebuyers and, as seen here, frequently discussed by listing agents, particularly those who attended training. Six out of ten agents mentioned windows to mystery shoppers, including all four agents who attended training. The two agents who had not attended training and mentioned windows, failed to mention anything about the energy efficiency of the windows to mystery shoppers. Instead, their focus was often on the aesthetics or easy-cleaning features of the windows.

Of the four agents who attended training and mentioned windows, the first failed to mention energy efficiency, the second said that all of the windows were ENERGY STAR, the third said all of the windows were efficient low-e windows, and the fourth went into great detail on the technical characteristics of the windows. This agent discussed that the windows were low-e, argon-filled windows, and went on to explain that because of the low-e glaze, the windows would reduce the wear and tear that the sun can have on furniture and carpets. The agent also explained that argon is an insulating gas, increasing the efficiency of the windows.

It seems that agents who attended training had an understanding of the windows in the home, and viewed windows as an area where they could quickly promote energy efficiency and ENERGY STAR, in contrast to the agents without training, who did not discuss the benefits of windows nearly as much.

## 4.8 Lighting

Energy efficient lighting was not emphasized by agents. Lighting was mentioned by seven out of ten agents, but only three discussed energy efficient lighting and ENERGY STAR, two of whom attended training, and one who did not.

All three agents who discussed energy efficient lighting talked about how the house was filled with energy efficient lighting, such as compact fluorescent lamps (CFLs), fluorescent tubes, or light-emitting diode lamps (LEDs), in order to meet ENERGY STAR requirements. Otherwise, agents only discussed lighting for its functional or aesthetic benefits.

## 4.9 Appliances

As is the case with windows, appliances are often a major selling point for prospective homebuyers, whether for function, efficiency, or aesthetics. Eight out of ten agents discussed appliances with mystery shoppers, but only one, who had attended training, mentioned that the appliances would be ENERGY STAR. None of the agents discussed the efficiency of the

appliances; instead, agents focused their marketing messages on the aesthetic and quality characteristics of the appliances. Put in another way, agents were pushing stainless steel appliances where applicable.

Although it is disappointing that only one agent mentioned ENERGY STAR, this is likely a function of the current market of homeowners. Homeowners are interested in stainless steel appliances, and that is what the agents are marketing, not efficiency. Having said that, appliances are an area where it is easy to market efficiency and that opportunity was lost among this sample of agents. This is particularly surprising given that ENERGY STAR is much better known as a marketing tool for appliances and electronics than it is for homes.

## **5 Labeling and ENERGY STAR Marketing Materials**

The Massachusetts New Homes with ENERGY STAR Program and the EPA provide promotional materials for ENERGY STAR homes. Mystery shoppers took note of any promotional materials they came across during the on-site visits.

Most of the homes visited by mystery shoppers were under construction and had not undergone the final ENERGY STAR inspection. Because of this, mystery shoppers did not see an ENERGY STAR label on any of the homes. However, all ten of the homes visited by mystery shoppers had some form of ENERGY STAR promotional materials on the premises, with the majority having some type of poster or signage in the development. There were a few instances where mystery shoppers were shown a specific lot in a development that had no promotional materials; it wasn't until the mystery shoppers were shown the model home that they saw the promotional materials. This suggests one of two things, either builders or agents are not provided with enough promotional materials, or they have decided that promotional materials are only necessary at the model home, rather than installing signage at homes still under construction, and thus less likely to be visited by potential homebuyers.

There were a few instances where promotional materials, such as brochures or handouts, offered much more information to homebuyers than the agents themselves provided. This could be because agents are not knowledgeable about the benefits of ENERGY STAR, or it could be because agents do not view energy efficiency as a high priority for homebuyers, and think such handouts are sufficient.

Six out of ten agents, including three who attended training, discussed the ENERGY STAR certificate with mystery shoppers. All six agents told the mystery shoppers that a certificate would be provided for the home. One agent mentioned that the certificate may not be provided for a while because certification is a slow process and it is currently backlogged.

## Appendix A Description of Mystery Shopping Trips

The NMR team conducted ten on-site visits with ten different sales representatives. This section presents the overall findings from each of the ten mystery shopping trips. These summaries portray the overall experience of the mystery shoppers and the general knowledge and marketability of the agents with regards to ENERGY STAR.

### Trained Agents

#### Mystery Shopping Trip #1 – Anticipated<sup>10</sup> HERS Index: 76

This real estate agent possessed a strong knowledge of ENERGY STAR, and was extremely eager to use the benefits of ENERGY STAR as a selling tool. The agent showed the mystery shopper a single-family detached house in an ENERGY STAR development. The house was still under construction but near completion, lacking flooring, appliances, and other finishes. The agent took ten minutes to mention ENERGY STAR, but showed the mystery shopper relatively little of the house before broaching the subject, which the agent did in response to the mystery shopper's stated preference for a quality, affordable house. The agent clearly described the certification process and pointed out many energy efficiency features of the house, including lighting, ventilation, HVAC systems, furnace efficiency, duct sealing and insulation, wall and attic insulation, and 2x6 construction. The agent discussed the practical benefits of ENERGY STAR, particularly increased resale value and low utility bills, but environmentalism or being “green” was not mentioned. The agent was impressed by the ENERGY STAR certification, and offered to obtain energy usage data from a neighbor in the development, and also provided additional specifications about the home's energy efficiency in a follow-up email after the showing. This agent did not mention the training to the mystery shopper, but it seems likely that they benefited from it, as energy efficiency was talked about as much as any other topic.

#### Mystery Shopping Trip #2 – HERS Index: Unknown, No Final Inspection; Anticipated ENERGY STAR Tier II

This real estate agent was knowledgeable about ENERGY STAR and the technical aspects of energy efficiency, talked about energy efficiency more than anything else, and seemed to take a genuine interest in the topic. This agent showed the mystery shopper the only single-family detached house that was not part of a development, unlike the other properties mystery shoppers visited. The home was near completion, but still required flooring and touchup work. The agent specifically lauded the ENERGY STAR training to the mystery shopper, saying that it “opened my eyes” to many specific aspects of energy efficiency that the agent had only generally been aware of in the past. The agent strongly emphasized the ENERGY STAR benefits of the house, providing a property spec sheet with a large header saying “ENERGY STAR RATED HOME,”

---

<sup>10</sup> This home had not yet completed its final inspection, but this is the HERS rating that the building was trying to achieve.

and the agent described the ENERGY STAR rating prior to saying anything else about the home, within a minute of meeting the mystery shopper. The agent was excited to become an ENERGY STAR certified agent, after having attended the training. The agent spoke positively about ENERGY STAR, and thought that it was pushing building code to become more efficient, and that code will eventually be the current ENERGY STAR standard. This was one of only two agents to mention environmentalism, and it was still mentioned briefly.

### **Mystery Shopping Trip #3 – HERS Index: 77**

This sales representative attended the ENERGY STAR training and worked for an ENERGY STAR development, but did not at all emphasize ENERGY STAR or energy efficiency, and missed multiple opportunities to discuss these issues, even after prompting by the mystery shopper. This agent worked as the main, on-site sales representative for a large ENERGY STAR development, and showed the mystery shopper an attached townhome. The agent quickly mentioned a few ENERGY STAR benefits, such as third party certification, low energy bills, efficient furnace and water heater, a well-sealed house, and efficient windows, but always in passing, or only after prodding by the mystery shopper. The sales office and model units had framed signs highlighting the numerous “green” features of the development, and the agent ignored them, even when the mystery shopper pointed them out. Very little time was spent discussing energy efficiency, despite the multitude of materials scattered throughout the sales center discussing these benefits, and the fact that the mystery shopper expressed interest in these features. The agent did provide a standard packet of marketing materials for the development, including ENERGY STAR handouts, but did not discuss them.

### **Mystery Shopping Trip #4 – HERS Index: Unknown, No Final Inspection**

This real estate agent was the primary listing agent for a relatively small multi-unit housing development of single-family attached townhomes. The mystery shopper was shown an attached townhouse that was under construction. All of the wall cavities and ceiling areas were finished, but the floors and kitchen were under construction during the on-site visit. The agent paid attention to detail and showed a very good understanding of the insulation, heating system, windows, and the durability of the home. The agent explained, in detail, how the insulation was blown in cellulose that created a sealed wall in each cavity, and how the heating system was set up with a damper technology that allowed for multiple heating zones with one forced hot air furnace—in turn increasing efficiency by decreasing the amount of mechanical equipment in the home. While the agent proved to have a solid understanding of efficiency and mechanical systems, the mystery shopper was not provided with a detailed explanation of ENERGY STAR. In fact, the only real information on the ENERGY STAR certification of the home was provided to the mystery shopper after prompting.

## Non-Trained Agents

### **Mystery Shopping Trip #5 – HERS Index of Comparable Home in Development: 70**

This sales representative had not attended training, but clearly understood energy efficiency and mechanical systems, and spent much of the time during the visit discussing them. The agent worked as the main, on-site sales representative for a large ENERGY STAR development, and showed the mystery shopper multiple single-family homes in various stages of construction. The agent talked about the ENERGY STAR rating before discussing any other specifics of the development, and talked about insulation more than any other aspect of energy efficiency. This sales representative discussed the building science behind sealing and insulating homes, and also provided the criticism of ENERGY STAR as not striking the right balance between sealing and the need for fresh air, and joked about how a buyer could choose to live in a “foam box” if he wanted. As the sales representative was selling not-yet-built homes, the agent focused on the quality of the homes’ construction, including the building process, materials and energy features, along with the luxury and comfort features of a large, custom home. The agent did not discuss the environmental aspects of energy efficiency or ENERGY STAR at all.

### **Mystery Shopping Trip #6 – HERS Index: Unknown, No Final Inspection**

This agent worked as the main, on-site sales representative for a large ENERGY STAR development, and showed the mystery shopper a townhome that was close to completion (lacking flooring, appliances, etc.). This agent repeatedly referred to ENERGY STAR as “Five Star Energy Rated,” and never correctly called ENERGY STAR by its actual name, despite the sales center’s ENERGY STAR marketing pamphlets and ENERGY STAR sign, and multiple promptings by the mystery shopper. The agent mentioned energy efficiency after ten minutes, upon seeing exposed insulation and the furnace in the basement. The agent did not seem to have a great deal of technical knowledge or interest in energy efficiency, but was able to identify many of the key marketing points of ENERGY STAR, including lots of insulation, proper sealing, efficient HVAC and water heating, low utility bills, and strong resale value. The agent hurriedly pointed out energy features and spent far more time on other topics such as finishes and layout. Despite calling ENERGY STAR by the wrong name, the agent did mention energy efficiency enough to highlight it as a positive feature of the home, and emphasized it was a “big deal” in new construction. This agent was also one of only two agents to mention environmentalism, as building an ENERGY STAR home was part of the development’s desire to be “green.” Some training would likely have benefited this agent, by increasing technical knowledge and providing tips for more effectively marketing features that the agent only briefly mentioned.

**Mystery Shopping Trip #7 – HERS Index: 70**

This mystery shopping trip was conducted with an agent who was working for a mid-sized development of single-family detached ENERGY STAR homes. The listing posted by the agent was a single-family detached home that was roughly 2,500 square feet in size. The home was almost complete upon the arrival of the mystery shopper; the floors were the only area still under construction. The agent was aware that the development was ENERGY STAR rated and informed the mystery shopper that the monthly utility bills would be low. The agent mentioned that the home had a Rinnai tankless water heating system on multiple occasions, and seemed to have a good understanding of the system when showing it to the mystery shopper. Although energy efficiency and ENERGY STAR were mentioned they were not clearly understood by the agent, and the sales pitch was focused on other aspects of the home, even after the mystery shopper expressed interest in those areas. For example, on more than once occasion, the mystery shopper pointed at on-site promotional materials asking “what is this all about?”, and in the end received responses that suggested the home was efficient, nothing more.

**Mystery Shopping Trip #8 – HERS Index: Unknown, No Final Inspection**

This trip was conducted with one of the sales representatives of a multi-unit housing development. The agent had listed a single-family detached home that was approximately 1,600 square feet in size. The home was completed and move-in ready during the on-site visit. The agent discussed energy efficiency and ENERGY STAR for two to three minutes, focusing on the certification process and the fact that the homes are inspected at three different stages. This was clearly the area where the agent knew the most, stressing to the mystery shopper that the ENERGY STAR certification process adds a month to their construction time, which is only three months to begin with. The agent did not go into any efficiency details after the mystery shopper prompted on high efficiency mechanical equipment, insulation, and windows. The agent seemed to view ENERGY STAR as an add-on benefit of the home, when in reality it was probably one of the home’s strongest selling points.

**Mystery Shopping Trip #9 – HERS Index: 63; ENERGY STAR Tier II**

This agent was listing a 2,200 square foot, single-family attached home in a multi-unit housing development. When the mystery shopper arrived the home was completely under construction; doors, floors, and partition walls still had to be installed in the home. The agent mentioned energy efficiency and ENERGY STAR homes to the mystery shopper without prompting, stressing that the utility bills and cost of operation would be low. The agent failed to realize the importance of energy efficiency to the buyer as the mystery shopper prompted on the water heater, insulation, natural gas, and the walls with virtually no response. At one point during the on-site visit the mystery shopper asked about noise in the development. The agent went on to discuss the insulation in the walls, but only from a sound barrier perspective, never mentioning

efficiency. The agent had many opportunities to separate the home from its competition through its ENERGY STAR characteristics and failed to do so.

### **Mystery Shopping Trip #10 – HERS Index: 68**

This mystery shopping trip took place at a larger single-family detached home in a multi-unit housing development. The home was listed by a sales representative who worked directly for the properties development company. The agent showed a strong understanding of ENERGY STAR and the certification process, mentioning the blower door test and a HERS rating company by name, without prompting. The agent explained to the mystery shopper that the home had a mechanical ventilation system that was set up on a timer, which would be adjusted to circulate the proper amount of fresh air for the home based on the blower door results. The representative showed the mystery shopper the indirect water heating system, and explained the benefits of such a system in sufficient detail. All in all, the representative seemed to have a strong understanding of the ENERGY STAR process and the various steps involved, but failed to promote energy efficiency to any great extent. The representative failed to discuss energy efficiency when the mystery shopper prompted on both insulation and the water heating system.

## Appendix B Mystery Shopping Guide



### ENERGY STAR Homes Mystery Shopping Information Form--Final

Realtor Company: \_\_\_\_\_

Builder/Company Name: \_\_\_\_\_

Interviewee Name and Title: \_\_\_\_\_

Contact Information: \_\_\_\_\_

Date Called: \_\_\_\_\_

Date Visited House: \_\_\_\_\_

Housing Category: Single Family Detached \_\_\_\_\_ Single Family Attached \_\_\_\_\_

Multifamily \_\_\_\_\_

Part of a Multi-Home Development: No\_\_\_\_ Yes \_\_\_\_

If in a Development, How Many Homes in the Development: \_\_\_\_\_

Price Range: \_\_\_\_\_

Size of Home (sq. ft.): \_\_\_\_\_

Size of Property (sq. ft.): \_\_\_\_\_

Style of Home: \_\_\_\_\_

Development Name or Home Street Address: \_\_\_\_\_

Town: \_\_\_\_\_

Service Territory: \_\_\_\_\_

Mystery Shopper: \_\_\_\_\_



**General Instructions:** The mystery shopper should attempt to have the realtor promote energy efficiency and ENERGY STAR homes without prompting. The mystery shopper should indicate that s/he is interested in the following features in a new home:

Good quality construction

Good quality equipment

Good location

Layout of rooms

Affordability

Cost of living there each year

If the Realtor mentions energy efficiency as a feature of the house, the mystery shopper should express some general interest such as saying, “Oh, tell me more about that”. If the Realtor does not mention energy efficiency after approximately 10 minutes, the mystery shopper will indicate that is an area of interest for him/her.

After launching the discussion on energy efficiency, the mystery shopper should attempt to have the Realtor mention ENERGY STAR homes without further prompting. If the discussion on energy efficiency seems to be concluding without mention of ENERGY STAR, the mystery shopper should indicate that s/he has heard that new homes can be ENERGY STAR rated and ask the Realtor what this means. The mystery shopper will make notes on this form immediately after leaving the Realtor’s presence and enter the information into a data base as soon as s/he returns to the office.

**General Awareness and Promotion of Energy Efficiency:**

Did the realtor bring up energy efficiency without prompting? Yes \_\_\_\_ No \_\_\_\_

If yes, at what point in the conversation was energy efficiency mentioned? (Indicate what other features of the home were discussed before energy efficiency and the approximate length of time before energy efficiency was mentioned)

What did the Realtor say about energy efficiency? Please record negative as well as positive comments. Please note what, if anything, s/he said about the following topics:

Lower energy bills:

Indoor air quality (asthma issues, mechanical ventilation explanation):

More comfortable home (fewer drafts, less temperature fluctuation):

More durable house:

State-of-the-art construction/systems:

Energy efficiency built into the home from the start; can't really upgrade a minimum code level home to these standards:

Efficiency is a positive point for the resale of the home; it increases the home's value:

Energy efficiency helps the environment (cleaner air, fewer utility plants, more reliable electric supply):

Energy efficiency is important even though you can't see it:

Other comments about energy efficiency:

**General Awareness and Promotion of ENERGY STAR Homes:**

Did the realtor bring up ENERGY STAR homes without prompting? Yes \_\_\_\_\_ No \_\_\_\_\_

If yes, at what point in the conversation were ENERGY STAR homes mentioned? (Indicate what other features of the home were discussed before ENERGY STAR homes and the approximate length of time before ENERGY STAR homes mentioned)

What did the Realtor say about ENERGY STAR homes? Please record negative as well as positive comments. Please note what, if anything, s/he said about the following topics:

Lower energy bills:

Indoor air quality (asthma issues, mechanical ventilation explanation):

More comfortable home (fewer drafts, less temperature fluctuation):

More durable house:

State-of-the-art construction/systems:

Energy efficiency built into the home from the start; can't really upgrade a minimum code level home to these standards:

ENERGY STAR is a positive point for the resale of the home; increases home's value:

ENERGY STAR helps the environment (cleaner air, fewer utility plants, more reliable electric supply):

ENERGY STAR homes have a brand advantage:

ENERGY STAR homes are certified by a third party (explanation of HERS rating):

HERS rating achieved by home (indicate what the Realtor said it is):

ENERGY STAR level achieved by home (indicate if Realtor said home is ENERGY STAR I, ENERGY STAR II, Tier 2, etc.):

Best crews work on ENERGY STAR homes because their work is checked:

Other comments about ENERGY STAR homes:

**Specific Equipment and Measures:**

Please note what, if anything, the Realtor said about the following equipment and measures:

HVAC:

Duct sealing:

Water heaters:

Appliances:

Lighting:

Insulation:

Air sealing or tightness:

Ventilation:

Two-by-six or other construction (other than two-by-four):

Windows:

**Labeling:**

Did the home have an ENERGY STAR label? Yes \_\_\_\_\_ No \_\_\_\_\_

If yes, where was it located?

Was an ENERGY STAR certificate discussed or shown to the buyer? Yes \_\_\_\_\_ No \_\_\_\_\_

If yes, what did the Realtor say about the certificate?

Were there any other ENERGY STAR materials such as signs, doormats, or brochures displayed? Yes \_\_\_\_\_ No \_\_\_\_\_

If yes, please describe.

**Conclusions:**

Please rate the Realtor’s knowledge about energy efficiency and ENERGY STAR certification for new homes and his/her willingness to use energy efficiency and ENERGY STAR certification as selling points. Use a scale of 0 (None) to 10 (High). Please also note overall impressions that support these ratings.

Knowledge of energy efficiency: \_\_\_\_\_

Knowledge of ENERGY STAR certification: \_\_\_\_\_

Willingness to use energy efficiency as a selling point: \_\_\_\_\_

Willingness to use ENERGY STAR certification as a selling point: \_\_\_\_\_

Comments: