

**It's Not the Data, It's the Marketing:**  
**Motivating Real Estate Agents to Sell High-Performing Homes**  
*Robin LeBaron and Cynthia Adams, Pearl Home Certification*

**ABSTRACT**

A decade ago, energy efficiency professionals began to work on new strategies to ensure that energy efficient homes are properly valued at the time of sale. Most of these strategies focused making data about the home's energy performance and energy efficient features available to buyers at the time of home sale. This paper argues that making efficiency data available is a necessary but not sufficient condition for energy efficiency to be broadly integrated into the real estate transaction. The key to ensuring that energy efficiency is truly visible at the time of sale is to ensure that real estate agents – the pivotal actor in the sale transaction – are able and willing to actively and enthusiastically communicate information about the home's efficiency to potential buyers. To secure agents' engagement, the energy efficiency industry must package home data in new and different ways that enables agents to easily understand and communicate its value to buyers. If efficiency data is not presented in an engaging package, it is likely to remain invisible and unvalued, languishing in the dark recesses of multiple listing service databases, instead of driving demand for energy efficient homes.

**The Residential Energy Efficiency Data Challenge**

For professionals in the energy efficiency industry, the idea that homebuyers will someday be able to understand and value the relative energy efficiency – or inefficiency – of for-sale homes has been an elusive holy grail. Armed with information about a home's efficiency, this theory goes, buyers would pay more for efficient homes, not only because they cost less to operate, but also because they are almost always more comfortable and healthier to live in. This “energy efficiency premium” would provide an incentive for current homeowners to invest in energy efficiency improvements, creating a virtuous cycle that would result in the upgrading of a significant proportion of the nation's 100 million existing residential buildings. One of the earliest papers on the subject framed the argument as follows:

The “green premium” is a crucial key to unlocking a more energy efficient future for America's residential buildings. When builders and homeowners become confident that energy efficient, environmentally sustainable homes will sell for a higher price, sell more quickly, and/or sell at all relative to otherwise identical homes lacking these features — the “green premium” — they will have a real, market-driven incentive to invest the resources necessary to build green homes and carry out energy efficiency retrofits (Stovall et al. 2011:1).

In 2011, at the time the paper was written, the most obvious obstacle to the emergence of a green premium was the absence of data about a home's efficiency or efficient characteristics at the time it was sold. Without such data, a buyer had no way of knowing whether a home was efficient or not, foreclosing the opportunity for a premium to emerge through market forces.

Two interrelated problems both contributed to this data scarcity. First, the energy efficiency industry had not developed effective ways to collect and transmit information about

homes, and particularly existing (as opposed to new-built) homes. As an influential paper on the subject articulated the problem:

Data is the key to addressing the transactional barriers that make it difficult for the market to identify and properly value energy efficient homes. Energy efficiency programs need to develop ways to transfer information about energy efficient features of existing homes to people and institutions involved in real estate transactions, including prospective buyers, real estate agents, appraisers, home inspectors, and others. (CNT and the National Home Performance Council 2013: 9)

Second, in 2011, even if the energy efficiency industry had data that it was ready and able to provide to potential home sellers and buyers, the real estate industry was still in the process of developing an infrastructure to display it. The most effective place for information about a home's efficiency features to be shown to potential buyers is the listing on the local multiple listing service (MLS). By 2011, forward-looking real estate professionals had recognized that buyers would want information about green and energy efficient features, and had begun the process of adding "green" data fields to their multiple listing service databases. However, there are over 600 multiple listing services in the U.S., each governed by a separate body, and each maintaining a separate database of property listings with a unique data architecture. In 2011 some of these MLS's had incorporated a few fields that would enable a buyer to recognize an energy efficient property, but the overwhelming majority had not yet done so.

## **Towards a residential efficiency data infrastructure**

A series of meetings convened by the U.S. Department of Energy beginning in 2012, together with action and leadership from committed professionals in the real estate, appraisal and energy efficiency industries, catalyzed action on these problems, resulting in steady progress between 2012 to 2018 on redressing the lack of energy efficiency home data.

Within the real estate industry, the National Association of Realtors (NAR), the Real Estate Standards Organization (RESO), and the Council of MLSs (CMLS) have worked together to make energy efficiency data accessible through the creation of standard "Green Fields" for multiple listing services as part of a larger national data dictionary initiative.<sup>1</sup> Although adoption of the green fields is voluntary, as of 2017 at least 43% of the approximately 600 multiple listing services in the U.S. had adopted some of these fields.

Within the energy efficiency industry, a widely-cited paper published by CNT Energy and the National Home Performance Council provided a detailed blueprint for addressing the issue. "Energy efficiency programs" the paper began,

have not found ways to transmit consistent, standardized data about energy efficiency features in existing homes to the real estate industry so that these features can be taken into account by buyers, appraisers, lenders, and others during the home sales transaction (CNT Energy and NHPC 2013: 4).

---

<sup>1</sup> Information about some more technical features that the energy efficiency industry considers crucial, such as air sealing and heating, ventilation, and air conditioning (HVAC) system efficiency, are not yet part of the RESO Data Dictionary, although they may be added as the dictionary expands over the next few years.

The paper recommended a number of ways for energy efficiency programs to standardize the way they collect and structure residential energy efficiency data, to transfer this data to MLS databases, and to populate the Appraisal Institute's Green and Energy Efficiency Addendum. Two years later, the U.S. Department of Energy's Better Buildings program published a paper that identified additional barriers to the proper valuation of energy efficient homes that, if addressed, would enhance the ability to use data to drive home-buying decisions. These barriers include:

- Invisibility of energy efficiency features
- Lack of standardized documentation
- Lack of third-party verified certification
- Time lag between upgrade and home sale
- Failure to assign qualified appraisers

The Better Buildings paper identified a number of solutions, the majority of which focused on finding ways to improve the flow of energy efficiency data from programs to home buyers (see Better Buildings 2015:2).

The energy efficiency industry has made a number of related efforts to implement these recommendations. The most ambitious attempt to solve the problem has been advocacy for a simple, universal "miles-per-gallon" rating that can provide buyers with a comparative indication of how efficient their home is, compared to other homes. The two most common such ratings are the HERS Index and the Home Energy Score. The HERS Index is has achieved some traction in the new-built homes sector, but relatively rare in the existing homes market, due largely to the time and cost (\$500 to \$1,000 or more) associated with the HERS rating process. The Home Energy Score, which was designed by the U.S. Department of Energy specifically to be inexpensive yet accurate enough to be deployed at a mass scale, has made headway with existing homes in a number of markets; as of May 2018 over 91,000 homes had received a Home Energy Score. However, it has not yet broken out as a universal residential energy performance indicator.

Efforts to standardize and transfer data about specific home features have also made progress. In 2012 and 2013 a national group of experts developed a standard (BPI-2101-S-2013) to help energy efficiency programs collect comparable data about the energy efficient features of existing homes and to facilitate data transfer to multiple listing services. The standard is recommended for use in the U.S. Department of Energy's Home Performance with ENERGY STAR® program, and has been explored by a number of utilities.

Mandatory energy labeling has been proposed as a way to speed the pace at which residential energy efficiency data becomes accessible. Portland, Oregon, now requires an energy score at time of sale. New York City has committed to implement labeling in the future, and a statewide labeling bill proposed by Governor Baker of Massachusetts was proposed during the spring of 2018. Strong resistance to such legislation from the real estate community, however – which prevented enactment of the Massachusetts bill – suggests that mandatory labeling will not be an easy approach in most jurisdictions.

## Progress, but not enough

The cross-industry efforts to create a residential energy efficiency data infrastructure are making a difference. One of the most significant indications of progress is the fact that a number of studies from across the U.S. have found evidence for energy efficiency premiums within specific markets. Most of these studies have compared the sales prices of homes with an energy efficient or more broadly “green” certification with comparable, non-certified homes, and have found that the certified new homes sell for a premium ranging from 2% to 5%. (See for example Adomatis 2015, Desmarais 2015, Griffen et al. 2009, Pflieger et al. 2011, Kahn and Kok 2014, Northwest Energy Efficiency Alliance 2015.)<sup>2</sup>

Yet progress is still relatively slow. The overwhelming majority of U.S. homes are still listed without information about their efficiency, and at the current rate of change it could still be decades before energy efficiency data is available for the majority of for-sale homes.

What are the elements missing from the market that would accelerate this transformation? The question is difficult, because some of the available data suggests that change should be happening much more rapidly. The availability of efficiency data should be related to, and driven by, consumer demand, and a wealth of consumer research from the past decade suggests that homebuyer interest in energy efficiency is strong and growing steadily. A few examples among many: a 2016 NAHB survey of homeowners, found that four of the top ten “must have features were energy efficiency-related, including energy efficient appliances, above-code insulation, and whole-house energy efficiency certifications (see Quint 2016). Similarly, a 2018 NAHB survey found that:

...demand for green upgrades continues to swell as home owners seek to save on utility costs, improve air quality and increase the value of their homes (NAHBnow 2018)

Real estate agents recognize these trends: the REALTORS and Sustainability 2017 Report released by the National Association of Realtors found that half of the surveyed agents and brokers believed that 60% of consumers were either “somewhat” or “very” interested in sustainability, and 71% of the brokers and agents interviewed said that promoting energy efficiency in listings was very or somewhat valuable.

Nor is the market entirely limited by supply. At this point, 1.9 million homes across the U.S. have been built to Federal ENERGY STAR standards. And many homes have energy efficient *features* – 21 million U.S. homes have double-pane, low-e windows, 20 million homes have attic insulation with an R-value of 38 or greater, and more than 11 million homes have highly efficient gas furnaces (i.e. furnaces with an AFUE of 92.5 or greater).<sup>3</sup> Relatively few existing homes have a third party certification or a score, but the market has developed to the point that these services could be provided at reasonable cost in many areas – if there was a robust demand for them.

---

<sup>2</sup> Similarly, a review of international literature on sales premiums associated with homes with “green” and energy efficient certifications found an average premium of 4.3% (see Brown and Watkins 2016).

<sup>3</sup> Data from the National Renewable Energy Laborator’s Resstock tool at [https://resstock.nrel.gov/dataviewer/national\\_example2](https://resstock.nrel.gov/dataviewer/national_example2)

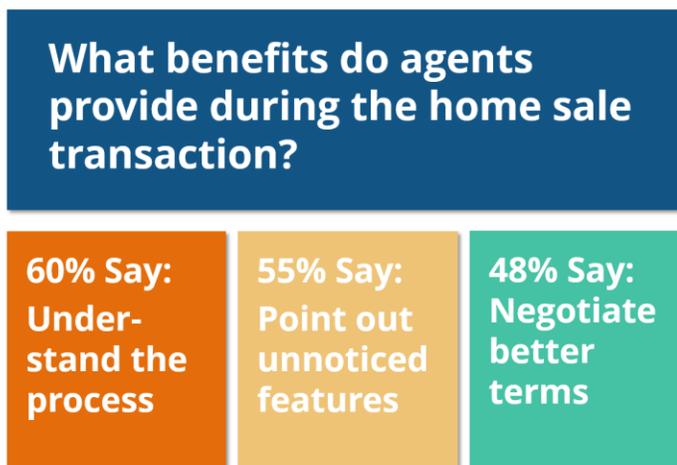
## The Real Estate Agent as pivotal driver of demand

One central argument of this paper is that progress in making energy efficient features visible has been slow because the stakeholders have not clearly identified a crucial driver of demand. Reasonably enough, much of the discussion about making the value of energy efficient homes visible has focused on the importance of meeting growing consumer demand for information about energy efficiency. What this framing misses, however, is the importance of the role of real estate agents. The fact that real estate agents, in general, have still not fully bought in to the value of energy efficiency, goes a long way to explaining the slow speed at which residential efficiency is being made visible at the time of home sale.

Real estate agents are central to real estate transactions, and, as such, they also have the potential to play a pivotal role in driving the use of residential energy efficiency data. Historically, the majority of real estate agents have been ambivalent about the benefits of information about home efficiency. If this perception changed, such that agents saw energy efficiency data as important to them and to the home sale, the economics of providing efficiency data would be transformed.

In 1961, just over two thirds of home buyers (69%) worked with a real estate agent or broker when selling their home. In 2017, 87% of buyers contracted with an agent or broker, and an even higher number of home sellers (89%) did the same. The shift is counter-intuitive. In 1961, real estate brokers and agents played a gatekeeper role by virtue of their access to data about home listings that was difficult or impossible for the average buyer to obtain. Since then, the internet has supported the development of a myriad of ways for home sellers to showcase their homes to potential buyers – Zillow and FSBO sites are two of the most obvious examples. Providing access to listings may have once been an important role for agents, and it may remain a vestigial one, but today this is not the primary value for home buyers and sellers.

What a good real estate agent has always done, and now does more than ever, is to play the role of the trusted advisor. Home sales are complex, and the transaction is often freighted with emotion for buyers and sellers alike. Real estate agents can play an important role in providing guidance and support through the process, providing education and advice that the seller or buyer could theoretically acquire on their own, but only at the cost of time and a potentially painful trial and error process.<sup>4</sup>



<sup>4</sup> For discussion of the enhanced importance of the trusted advisor role in real estate, see Inman, 2017

As a trusted advisor, the real estate agent plays what is in effect a curatorial role, whether they represent the seller (the listing agent) or the buyer (the buyer's agent). When working with a seller, the listing agent advises how to showcase and stage the home, whether to make improvements, and how and when to address problems. When representing the buyer, although an agents may dwell on the "positive" aspects of a home, reputable agents are committed to finding the best house for the client, and will indicate all the features – good and bad –they believe could and should influence a buyer's decision. By focusing attention on some home or neighborhood features rather than others, both listing and buyer's agent effectively play educational and taste-making roles.

From the energy efficiency industry's perspective, the agent's role creates challenges but also opportunities. The primary challenge is that an agent is unlikely to point out or recommend showcasing energy efficient features unless she believe the market values them, and that if the agent does not point out the feature, it is much less likely to be valued by either buyer or seller. The primary opportunity is that if the agent sees efficiency as relevant to the market and of interest to buyers, she is ideally placed to highlight it.

The role of the listing agent is particularly important for showcasing energy efficiency features. Seller's agents are perfectly positioned to suggest to clients that they showcase energy efficient features, and to help them find ways to do so. They commonly make recommendations regarding a number of home features; such as the suggestion that the seller upgrade kitchen cabinets or countertops, because that is "what the market expects." Encouraging sellers to highlight the fact that the home has an energy efficiency certification or score, or specific efficient features, would go a long way to driving broad market interest in energy efficiency data.

Real estate agents are also well-placed to drive an acceleration of the development of data infrastructure. Creating new data fields within an MLS requires time and money, and MLS owners and vendors are much more likely to make investments in data fields related to energy efficiency if agents are asking for them.

In short, the energy efficiency industry could benefit from expanding the scope of its efforts to make the value of energy efficiency visible, by moving from a focus on transferring data, to efforts to engage real estate agents, particularly, although not exclusively, listing agents. This entails understanding agents' business needs and motivations, and providing data specifically tailored to meet them, so that agents are converted from (at best) grudging purveyors of important but dry information into enthusiastic proponents of high-performing homes.

## **Engaging Real Estate Agents**

Real estate agents are motivated by two very specific objectives and one more general goal. The two specific objectives are to get the listing and successfully sell the home. The general goal is to remain relevant at a time when the real estate agent's value is in threatened by new, disruptive business models and technologies. Agents have historically regarded energy efficiency with some skepticism, because it can complicate their ability to achieve these goals. However, as discussed below, efficiency data, if provided in the right way, can also help agents.

This section focuses primarily on the goals and challenges of listing agents, because they are best positioned to use energy efficiency data in ways that drive demand for efficient homes. Most of the discussion is also relevant for buyer's agents, however.

## Getting the Listing

One of an agent's primary challenges is getting clients. Competition for clients, particularly for seller's listings, can be fierce, particularly when the market is tight and inventory is low, as has been the case for much of the U.S. during 2017 and 2018. Agents seeking to represent a seller will typically make a listing presentation, during which they attempt to set themselves apart from their peers through their success at sales, expertise with a particular type of property, or other differentiating skills and services. Real estate professionals are ubiquitous: almost everyone is either related to or friendly with at least one, so that an ambitious agent who extends herself beyond her social network to get a listing may find herself in competition with the seller's cousin or sister's best friend, as well as with the high-powered agents who end up capturing most of the listings. Agents interested in capturing as many listings as possible have a strong vested interest in anything that can set them apart from the competition.

## Selling the Home

Once a listing agent has a client, their goal is to sell the home. Agents typically get paid on a commission, which is calculated as a percentage of the sale – no sale, no paycheck. The total commission frequently ranges between 5% and 6% of the sales price of the home, or approximately \$11,600 to \$14,000 for a home with the February 2018 U.S. median sales price of \$232,300. This is split between the buyer's and seller's agent, so that each would receive between \$5,800 and \$7,000 from a "typical" transaction, less a percentage that would go to the broker.<sup>5</sup> Most agents represent a client in approximately ten transactions a year, so each commission is typically a significant portion of their income. A sale that doesn't go through therefore represents a significant financial loss to the agent involved.

A real estate sale can be derailed by many issues: physical problems with property, legal issues such as deed restrictions, a low appraisal, problems with the underwriting. The personal and emotional factors involved in buying and selling a home can also jeopardize a seemingly reasonable transaction—offers have been rescinded at the eleventh hour because the owner decides they cannot bring themselves to sell the home where they have lived for decades. As a result, a real estate agent is typically intensely focused on avoiding potential risks to the transaction, and addressing any that appear as rapidly and effectively as possible.

In this context, for most agents closing the sale at all is much more important than closing at a specific price, provided that the seller is satisfied. If a home is listed at \$250,000 for example, the agent would, all things being equal, be glad to see a bidding war that drove up the final price to \$260,000, resulting in a commission that is \$200 to \$300 larger than it would have been if the sale was at the listing price, but the marginal increase is not nearly as important as the \$5,000 to \$7,500 that would be generated from the commission. From the agent's perspective, in other words, a higher price isn't nearly as important as a sale.

## Market Relevance

In the twenty-first century, real estate agents are fighting their own local version of a two-front war. First, agents are fighting to remain relevant in a market context in which buyers have

---

<sup>5</sup> Commissions vary significantly from firm to firm, and from market to market, and are ultimately negotiable. Although a 6% commission was traditional for full-service brokerages, average commissions have fallen in recent years (see Harney 2017 for a brief overview of recent trends).

more information at their fingertips than ever before. Disrupters like Redfin and OpenDoor put downward pressure on independent agents' commissions or threaten to displace them altogether.<sup>6</sup> As noted above, close to 90% of home sale transactions still involve real estate agents, but agents have concerns about their long-term future. As a result, they have a strong interest in expertise, services, and technologies that enable them to remain relevant and valuable to customers. Their ability to take advantage of new services and technologies is limited, however; so the more a potential method of differentiation fits within their existing business practices, the more likely they are to adopt it.

### **Energy Efficiency as a Challenge for Agents**

These very real pressures on the real estate agent help explain why they have historically had concerns about the impact of energy efficiency information on their business. Information about a home's energy efficiency, whether in the form of a score, label, or information about features, is designed incite questions from buyer. If an energy efficiency label, score, or other information alerts the buyer to the fact that the home is relatively *inefficient*, the sale may become more complicated, or in a worst case, derailed. A prospective buyer who sees that a for-sale home is in the bottom quartile of a score that ranks homes by relative energy efficiency, for example, might ask difficult questions, attempt to negotiate price concessions to implement efficiency measures, or walk away from the home altogether. Energy efficiency, in other words, is a risk factor for relatively inefficient half of the housing, and with the risk rising the more inefficient a home is.

The potential that energy efficiency may derail a sale is an agent's primary concern. However, the real estate industry has also expressed concern about the impact of energy efficiency information on home pricing. Theoretically, energy efficient homes should command higher prices in the market, both because they have desirable characteristics, such as comfort and healthy indoor air, and because they cost less to operate than comparable, less efficient homes. But agents have expressed concern that when the entire housing stock is taken into account, energy efficiency is a zero-sum game: efficient houses gain in value, but less efficient houses lose value and – the danger zone for an agent – may become stigmatized and difficult to sell. In other words, the “green premium” also suggest a “brown discount.”

Energy efficiency ratings or scores also create a different and less discussed danger for individual agents: reputational risk. Real estate agents have to be knowledgeable, if not expert, in domains ranging from local demographics, economics, mortgage finance, and real estate law. Questions about energy efficiency features – insulation, HVAC systems, energy saving smart devices, and the like –are challenging for the agent to negotiate. Asking them to develop expertise in energy efficiency represents a challenge that many are unlikely to want to take up – at least not without a compelling reason for doing so. If the listing includes an energy efficiency score, label, or information about efficient features, clients may ask difficult questions, creating the risks that the agent will be unable to answer and will lose face in front of her clients. Put another way, energy efficiency creates a danger for the agent of providing differentiation of the wrong sort.

---

<sup>6</sup> See for example Inman 2018

## **Energy Efficiency as an Opportunity for Agents**

How can the energy efficiency industry address the challenges that efficiency data potentially creates for individual agents? Further, how might agents actually embrace efficiency? The answer: simple in concept, albeit more difficult in execution, is to provide agents with data that enables them to meet their most important goals: getting the listing and closing the sale.

There are a number of ways that energy efficiency data can do this, but the most important can be summed up in a single word: differentiation. Packaged correctly, energy efficiency information can help both the home and the agent stand out from the competition. As with many so things, the key is marketing. A somewhat different and more official presentation can help solve specific problems related to closing the sale by helping the seller avoid appraisal-related problems.

### **Differentiating the Agent**

Because listing agents' have an objective to stand apart from the competition in a way that gives them an edge in competing for listings, energy efficiency offers an interesting and potentially compelling way to provide this differentiation. Given growing buyer interest in energy efficient homes, an agent seeking to secure a listing who can present herself as knowledgeable about energy efficiency has an advantage over the competition: partly because she can present herself as having a higher level of professional training, but more importantly because she can promise to showcase the home's energy efficient features and potentially sell the home more quickly or capture a higher sales price for the buyer. Energy efficiency expertise may also give agents an additional way to underscore their relevance in contrast to online real estate data portals, particularly if the energy efficiency data is obtained from a local source.

A professional credential that qualifies an agent as particularly capable of selling energy efficient homes, such as the National Association of Realtors' Green Designation, is a one way to provide such differentiation. The ability to access energy efficiency data in a way that helps an owner showcase the home is another, complementary strategy for standing out from the competition. However, the agent will be unlikely to differentiate herself in this fashion unless she is comfortable using the data, during the sales process.

### **Differentiating the Home**

Given buyer interest in energy efficiency, information about a home's efficiency features is likely to make the home stand out for buyers. However, the presentation of the information is crucial. Technical information that is immediately understandable to an energy efficiency professional may be close to meaningless for the average homebuyer, and even for the average agent.

Scores and certifications are generally considered within the energy efficiency industry to be simple methods of communicating information about a home's efficiency, but the home buyers may not find this information entirely straightforward. The meaning of a HERS Index of 60 is obvious to energy efficiency experts, but it requires some explaining for consumers, who may also not intuitively grasp a scale that improves as its point value decreases. The Home Energy Score's ten-point scale, which was designed to be highly accessible to consumers, is probably more intuitive for the average consumer, although any particular score may not be particularly meaningful if the potential buyer does not know of other homes with Home Energy

Scores that they can refer to for comparative purposes. In general, the more the efficiency industry can help provide information about what a score or certification “means,” the more likely agents will be to recommend that a seller get a score or certification, or highlight it during the sales process.

Information about home features may also require packaging for it to be market friendly. Home buyers are interested in specific home features – flooring, fireplaces, fixtures, cabinetry, and pools, for example. Providing information about specific energy efficiency features adds to their knowledge about the home. The challenge is to provide the information about efficient and high-performing features in a way that is meaningful to a non-expert. Indicating that a furnace is a 92.5 AFUE condensing unit, or that a central AC has a SEER rating of 18, will mean little to nothing to the average consumer without information that provides context and points of comparison. Showing how each of these features compares to an “average” feature of the same type, by contrast, is an easy way to provide a potential buyer with context.

In short, for both certifications and specific home features, listing agents will promote the use of data about efficient home features if the information is easy for customers to understand and provides the agent with opportunities to introduce and impress buyers with information about aspects of the home they might never have noticed. This information should be presented in a way that does not require the agent to be an expert and does not create the risk of the agent losing face by raising questions that she cannot easily answer.

In other words, sales and marketing materials about energy efficiency should “speak for themselves.” Energy efficiency data needs to be packaged in a way that is easy for potential buyers to understand and appreciate – it needs to explain to buyers qualitative benefits of living in a home that has certain energy efficient features. Turnkey marketing materials reduce the burden on the agent, who can share this information, ideally from a third party source, without running the reputational risks discussed above.

## **Support for the Appraisal**

Although listing agents have a strong interest in efficiency data that supports their ability to market a property, they can also use efficiency data in one other, very different format, to help meet the goal of ensuring that the sale closes.

Of the many factors that can sink a real estate transaction, a low appraisal is one of the most common and dangerous. Federal regulation of appraisal practices was increased following the financial crash of 2008, with the result that for the past decade appraisers have been extremely careful not to take any steps that could be construed as artificially inflating the value of a home. In this context, it has been, and remains, particularly difficult to get a home’s efficiency certification and/or efficient features considered in the appraisal.

However, a relatively small number of very committed appraisers have been working for the past decade to create tools that allow efficient homes to be properly valued. The most important and visible result of these efforts is the Appraisal Institute’s Green and Energy Efficient Addendum, which provides an official form for the appraiser to collect data about the efficient characteristics of the subject property.

Filling out the Appraisal Institute’s addendum, and ensuring that it is delivered to the appraiser, can help the agent navigate the appraisal process. However, most agents and appraisers are unlikely to fill out the addendum on their own. The solution is a reliable third party willing to assume responsibility for providing the data necessary to complete the

Addendum. This third-party solution can play an important role in ensuring that a home is appraised for the asking price.

## **Pearl Certification Case Study**

The foregoing section discusses ways that energy efficiency data can support the real estate agent to ensure energy efficiency is valued during home sales. To what extent have or can they be realized in practice?

To address this question, the remaining section of this paper describes efforts by Pearl Home Certification to engage real estate agents. Founded by the authors, Pearl Certification is a start-up based on the idea that energy efficiency upgrades create value that can and should be captured in the real estate transaction. Pearl certifies homes that have energy efficient, high performing features –features that make a home comfortable, healthy and energy prior to sale. Agents or buyers pay for the certification because they expect the home to increase in value as a result of it. Pearl does not typically sell certifications directly to consumers. Instead, it recruits a select group of real estate brokers, and, by extension, agents, into the Pearl Advantage Network. Pearl Advantage agents order certifications when they have an efficient home, either passing the price on to the customer or covering it themselves as part of the cost of doing business.

Pearl's founders initially focused on creating Pearl Certification reports that presented data about a home's energy efficient features in ways that were intended to be clear and accurate. The reports listed all the energy efficient and high-performing features in a home, and they provided a number of efficiency-related technical details about the home. The section on a home's air source heat pump, for example, would include the unit's SEER and HPSF ratings, its compressor type, whether it had been installed according to a quality install protocol and/or performance tested, and whether the owner had a maintenance contract. Each high-performing feature in the home was assigned a point value, based on its relative efficiency. Overall, the home was given a score based on the sum of the point values of all the home's assets, and based on this total point value the home was put into one of four categories: Pearl Asset Certification, Pearl Silver, Pearl Gold or Pearl Platinum. Pearl also auto-populated the Appraisal Institute's Green and Energy Efficiency Addendum and included it as part of the package.

Pearl began piloting its certification system in late 2016 by offering Virginia agents the opportunity to Pearl certify homes that they were listing for a reduced price. Market reaction to this initial offering was swift and sobering. Real estate agents were interested in the Pearl Certification reports, but they wanted marketing materials, not just data. Based on this feedback, Pearl iterated. The reports were redesigned several times by professional graphic designers, until they had a professional look and feel. Special icons were designed to indicate home features, as well as four categories of features: heating and cooling, building shell, baseload and building management. Pearl rewrote information about the home features in less technical language and provided comparisons to enable an average reader to quickly grasp the relative performance of a feature. Above-code attic insulation, for example, resulted in a short description which explained that the home was in the 5% best-insulated homes in the state.

As a result of agent feedback, Pearl also created a number of marketing collateral materials designed to support the sale. One of these marketing materials condenses the report a single-page flyer that can be left out during the home showing. Another piece of marketing material consists of informational placards on individual features that can be hung around the home, so that buyers can see information about the home's air tightness or HVAC system, for

example. Pearl also used the information in the reports to create customized text that can be deployed as social media posts.

The redesigned reports and associated marketing materials transformed agent interest. The early adopter agents, some of whom had already been marketing “green” homes, recognized that the package Pearl offered could support their efforts to sell a home and began to order certifications and use the materials.

By mid-2017, enough Pearl-certified homes had been sold that Pearl commissioned Sandra Adomatis, one of the foremost experts on appraising energy efficient homes, to lead an appraisal study to determine whether Pearl certification resulted in a premium. The study took the set of Pearl-certified homes, paired them with comparable non-certified homes from the same geography and sold within the same timeframe, made standard appraisal adjustments, and compared pricing.

The study results met the founders’ hopes. Despite almost no advertising beyond the agents’ efforts, Pearl-certified homes sold for an average of 2% more than the comparable, non-certified homes. A number of these homes had been sold under circumstances in which the Pearl certification had not been marketed, mostly because the agent had not felt it was necessary, or because (in one case) the report was ordered by the homeowner and the agent never saw it. Once these cases were removed from the set, the average price premium for a Pearl-certified home was actually 5%. In other words, if a home was *marketed* as Pearl-certified, a clear premium emerged.

Evidence that the Pearl Certification makes a difference to the sale also emerged in interviews conducted by the study research team and have been observed by Pearl staff. Agents report that they like the Pearl materials because they made the home stand out and attract buyer interest. Many of the Pearl Advantage agents stated unequivocally that Pearl certification helped close sales. The agents noted that Pearl helped drive prices upwards, although most agents focused on how the certification had made the sale quicker and easier and appreciated that their clients had been satisfied.

Appraisers have also begun using Pearl’s materials, including the Appraisal Institute’s Green and Energy Efficiency Addendum. These appraisers have indicated that they find the documentation of the energy efficient features compelling and often sufficient to justify an increase in their opinion of value.

Agents have also indicated to Pearl staff that they can leverage their membership in the Pearl Advantage network when they make a listing presentation. Some have asked for the ability to use the Pearl logo on stationary and have requested materials, such as lapel pins, to create personal differentiation by advertising their affiliation with Pearl.

By March of 2018, Pearl had expanded from its pilot in central and northern Virginia, recruiting Advantage Network brokers in Georgia, New York, New Jersey, Ohio and California. Broker engagement in each of these areas was driven primarily by the potential for the Pearl certification system to differentiate the broker’s agents from agents affiliated with competing firms and to facilitate their ability to sell homes.

## **Conclusion: From Data to Marketing**

If the value of energy efficient homes is to become visible in the near future, real estate agents need to start demanding and using residential efficiency data. However, agents are very unlikely to do this unless efficiency data helps them meet their own professional goals. Accordingly, the real challenge for the energy efficiency industry is not just to provide data on

energy efficient homes, but to provide information that agents find relevant and useful – even exciting – during a home sale. Pearl Certification’s experience to date suggest that this approach is possible, but that it requires a significant shift in focus: from collecting and transferring data to packaging and showcasing information so that it engages buyers. This requires real marketing expertise, so if the energy efficiency industry does not want to go into the marketing business, it will need to explore marketing partnerships with firms that have the expertise to transform utilitarian data into eye-catching marketing materials that help buyers and real estate agents alike understand why they should care about energy efficient homes and features.

## References

- Adams, C. 2012. *Valuing the Energy Efficiency in the Real Estate Community*. American Council for an Energy-Efficient Economy (ACEEE) Summer Study on Energy Efficiency in Buildings (6): 13-24. <http://aceee.org/files/proceedings/2012/data/papers/0193-000209.pdf>.
- CNT Energy, and The National Home Performance Council. 2013. “Unlocking the Value of an Energy Efficient Home.” [http://www.elevateenergy.org/wp/wp-content/uploads/Unlocking\\_the\\_Value\\_of\\_an\\_Energy\\_Efficient\\_Home\\_FINAL.pdf](http://www.elevateenergy.org/wp/wp-content/uploads/Unlocking_the_Value_of_an_Energy_Efficient_Home_FINAL.pdf).
- Adomatis, S. 2015. *What is Green Worth: Unveiling High-Performance Home Premiums in Washington, D.C.* Washington, D.C.: Institute for Market Transformation.
- Brown, M.J. and Watkins, T. 2016. “The “Green Premium” for Environmentally Certified Homes: A Meta-Analysis and Exploration.” Draft version. [https://www.researchgate.net/publication/294090858\\_The\\_green\\_premium\\_for\\_environmentally\\_certified\\_homes\\_a\\_meta-analysis\\_and\\_exploration](https://www.researchgate.net/publication/294090858_The_green_premium_for_environmentally_certified_homes_a_meta-analysis_and_exploration)
- Desmarais, L. 2015. “An Early Look at Energy efficiency and Contributory Value.” Colorado State Energy Office. <https://www.colorado.gov/pacific/energyoffice/atom/32661>.
- Griffin, A., Kaufman, B., and Hamilton S. 2009. “Certified Home Performance: Assessing the Market Impacts of Third Party Certification on Residential Properties.” Earth Advantage, Green Works Realty, and Hamilton Investments, LLC. <https://www.earthadvantage.org/assets/documents/AssessingMarketImpactsofThirdPartyCertification-090529.pdf>
- Harney, K.R. 2017. “Realty agents’ average commission for home sales heads down toward 5 percent.” Washington Post. [https://www.washingtonpost.com/realestate/average-commission-rate-for-home-sales-heads-down-toward-5-percent/2017/01/09/4ee3f048-d6a8-11e6-b8b2-cb5164beba6b\\_story.html?noredirect=on&utm\\_term=.69c047120fbf](https://www.washingtonpost.com/realestate/average-commission-rate-for-home-sales-heads-down-toward-5-percent/2017/01/09/4ee3f048-d6a8-11e6-b8b2-cb5164beba6b_story.html?noredirect=on&utm_term=.69c047120fbf)
- Institute for Market Transformation, MRIS, Elevate Energy and District Department of the Environment. *Green the MLS: Bringing High-Performance Homes to Light in the District of Columbia*.
- Kok, N. 2012. “The Value of Green Labels in the California Housing Market.” United States Green Building Council. <https://www.usgbc.org/articles/value-green-labels-california-housing-market>.

- Kahn, M. and Kok, N. 2014. The capitalization of green labels in the California housing market.” *Regional Science and Urban Economics*. Vol. 47. [http://corporate-engagement.com/files/publication/KK\\_RSUE\\_2013.pdf](http://corporate-engagement.com/files/publication/KK_RSUE_2013.pdf)
- Inman. 2017. “Follow the Leader: Malin, Gary, President, CitiHabitats.” <https://www.inman.com/2015/10/19/gary-malin-the-role-of-agent-has-shifted-from-gatekeeper-to-trusted-advisor/> (accessed June 8<sup>th</sup>, 2018)
- Inman. 2018. “Agent/broker Perspective: Is Technology Replacing Real Estate Agents?” <https://www.inman.com/2018/05/15/agent-broker-perspective-is-technology-replacing-real-estate-agents/> (accessed June 8th, 2018)
- NAHBNow. 2018. “Bathrooms Overtake Kitchens as Most Popular Remodeling Project.” <http://nahbnow.com/2018/05/bathrooms-overtake-kitchens-as-most-popular-remodeling-project/> (accessed May 28th, 2018)
- Quint, R. 2013. “What Home Buyers Really Want.” National Association for Home Builders (NAHB). [http://www.nahb.org/~media/Sites/NAHB/SupportingFiles/8/Wha/WhatHomeBuyersWant\\_20130430023250.%20ashx?la=en](http://www.nahb.org/~media/Sites/NAHB/SupportingFiles/8/Wha/WhatHomeBuyersWant_20130430023250.%20ashx?la=en).
- Quint, R. 2016. *Housing Preferences Across Generations*. HousingEconomics.com. <https://www.nahbclassic.org/generic.aspx?sectionID=734&genericContentID=249797&channelID=311>
- Pfleger, W., Perry, C., Hurst, N. and Tiller, J. 2011. *Market Impacts of ENERGY STAR® Qualification for New Homes*. Boone, NC. Appalachian State University
- Northwest Energy Efficiency Alliance. 2015. *The Market Valuation of Energy Efficient and Green Certified Northwest Homes*.
- Stukel, L., Scheu, C., and Brookstein, P. 2014. “Valuing Home Performance Improvements In Real Estate Markets.” *ACEE Summer Study on Energy Efficiency in Buildings* (10): 302-315. [http://www.elevateenergy.org/wp/wp-content/uploads/Valuing\\_Home\\_Performance\\_Improvements.pdf](http://www.elevateenergy.org/wp/wp-content/uploads/Valuing_Home_Performance_Improvements.pdf).
- Stovall, J., Beldock, J., LeBaron, R., and Saul-Rinaldi, K. “Unlocking the Full Value of Green Homes: Why Green Multiple Listing Services Are a Key to Residential Energy Efficiency.” National Home Performance Council, and Association of Energy and Environmental Real Estate Professionals.
- Udelson, S. 2017. “Selling Your Home 'By Owner': What's Really Happening?” *Forbes*. <https://www.forbes.com/sites/steveudelson/2017/01/17/selling-your-home-by-owner-whats-really-happening/2/#5f8b6bc457ee>
- Great Boston Real Estate Board. 2018. “Bill Requiring Energy Audits Before Listing Shelved.” [https://www.gbreb.com/GBAR/Sites/GBAR/News/GBAR-Informer/2018/Bill\\_Requiring\\_Energy\\_Audits\\_Before\\_Listing\\_Shelved.aspx](https://www.gbreb.com/GBAR/Sites/GBAR/News/GBAR-Informer/2018/Bill_Requiring_Energy_Audits_Before_Listing_Shelved.aspx)