Designing a Mortgage Process for Energy Efficiency

Leonard Kolstad, Institute for Market Transformation

ABSTRACT

As the U.S. housing stock ages, more robust strategies and financing mechanisms are needed to drive renovations in existing homes, particularly among low- and moderate-income households. To date, residential retrofit strategies have broadly targeted homeowners, with less emphasis placed on leveraging the home purchase process to trigger renovations early in a homeowner's tenure. In theory, the Energy Efficient Mortgage (EEM) program offered by the Federal Housing Administration (FHA) represents a promising model for catalyzing energy-saving upgrades with home purchase transactions; however, the program has struggled to gain traction. Based on a focus group of pre-purchase housing counselors, FHA borrowers are unlikely to prioritize energy efficiency, although a few interviewed pre-purchase housing counselors and real estate agents noted an increased interest in energy efficiency in recent years among younger borrowers. Both the focus group and interviews suggest that FHA loans have become unappealing due to their mortgage insurance premiums and the presence of other attractive financing options. Potential strategies for better leveraging home purchase transactions to trigger energy-saving renovations include incorporating more information about home energy efficiency into housing counseling programs and tying financing for energy-saving measures with financing for cosmetic improvements, which are in high demand by prospective home buyers. While the focus group and interviews to date have investigated demand-side barriers to greater FHA EEM uptake, this study is ongoing and future interviews with mortgage loan officers will offer insight into the supply-side barriers that limit participation in the EEM.

Introduction

In many respects, a home purchase provides an opportune moment to finance and implement home improvements. Home buyers often apply for a mortgage to purchase a home, so the marginal effort to apply for an energy efficient mortgage to finance energy-saving upgrades can be relatively low. In addition, by financing the improvement costs in a first mortgage, the payments can be amortized up to 30 years. Home buyers generally expect to live in a home for 10 to 15 years, which is equal to or less than the useful life of many upgrades. Therefore, the benefit-to-cost ratio of energy-saving improvements would likely be at its highest point at the start of the household's tenure (NAR 2013). Further, renovation projects are easier to complete before the occupant has fully settled into the property. Perhaps the most important advantage is the fact that home purchase transactions involve many professionals, such as mortgage loan officers, real estate agents, housing counselors, home inspectors, and insurance agents – this extensive network offers multiple channels by which information can be provided to a home buyer.

Overview of Energy Efficient Mortgages (EEMs)

In broad terms, an EEM can include any mortgage that adjusts underwriting guidelines to account for a home's energy-saving features, or otherwise provides financing incentives for energy efficiency (Farhar 2000). Inconsistently over the past thirty years, various EEM products have been offered by FHA, the Federal National Mortgage Association (Fannie Mae), the Federal Home Loan Mortgage Corporation (Freddie Mac), the U.S. Department of Veterans Affairs, and the U.S. Department of Agriculture. For the purposes of this study, the current FHA EEM will provide the basis for exploring more effective ways to package energy-saving renovations with home purchase originations.

How the current FHA EEM works. The FHA EEM allows a borrower to finance a cost-effective "energy package" – or a set of energy-saving home upgrades—with a home purchase or refinance transaction. A qualified home energy rater must determine that the present value of the energy saved over the useful life of the energy package exceeds the cost of those upgrades to the borrower, including maintenance costs. The rater must use a Home Energy Rating System (HERS) that meets minimum requirements set by the U.S. Department of Energy (HUD 2005). FHA does not set the fees for the inspections or the home energy rating, but these fees can be financed as a part of the EEM as long as the entire energy package remains cost-effective. The loan amount for the cost-effective energy package cannot exceed the lesser of 5 percent of: (a) the value of the property; (b) 115 percent of the median area price of a single-family dwelling; or (c) 150 percent of the Freddie Mac conforming loan limit (HUD 2009).

The FHA EEM can be used for existing or new detached homes, townhouses, or condominiums. A borrower may also combine an EEM with other FHA property improvement programs, such as weatherization, solar, and 203(k) rehabilitation loans. All FHA-approved lenders are eligible to originate EEMs with no special approval process.

The loan is initially underwritten as if the energy package does not exist. If the borrower qualifies to purchase or refinance the home, no further qualification is needed to finance a cost-effective energy package. The borrower does not need to provide a down payment on the energy package cost, and no second appraisal is needed to reflect the as-completed value of the home. For loan applications that are manually underwritten, properties that meet or will be renovated to meet a certain level of energy efficiency (currently the 2000 International Energy Conservation Code) are eligible for a two-percentage-point stretch in qualifying debt-to-income ratios. Therefore, home buyers and homeowners can utilize the FHA EEM to increase their borrowing capacity to a level that exceeds what is allowable for a regular home mortgage.

For existing properties, the lender places the funds for the energy package in an escrow account at closing, and the EEM is insurable by FHA immediately after closing. Borrowers are subject to an upfront mortgage insurance premium equal to 1.75% of the base loan amount, as well as annual mortgage insurance premiums that vary depending on the loan characteristics (HUD 2012a). The energy package must be installed within 90 days of closing, after which any remaining funds in the escrow account must be applied to pay down the loan principal. For new construction, the energy package is part of the home's construction and must be completed prior to loan closing.

Brief history of the FHA EEM. Like many innovations currently used to improve building energy efficiency, the concept of the EEM was developed in reaction to the energy crisis of the 1970s. The first EEM pilot was introduced by Fannie Mae and Freddie Mac in Massachusetts in 1983, as part of a larger project developed by Energyworks, Inc., the Alliance to Save Energy, and Mass Save, Inc. (Miller 1986). Only one bank offered the product, and it completed fewer than ten purchase originations before ending its involvement in 1984. Fannie Mae and Freddie Mac continued to offer the pilot in subsequent years, though participation likely remained low.

In 1991, the U.S. Department of Energy (DOE), in cooperation with the U.S. Department of Housing and Urban Development (HUD), convened the National Collaborative on Home Energy Rating Systems and Mortgage Incentives for Energy Efficiency, with the mission of designing a voluntary national program that linked mortgage lending with home energy ratings (Farhar 2000). Soon after the Collaborative published its recommendations, the Energy Policy Act of 1992 (EPACT) was enacted, providing for the establishment of an FHA EEM pilot program in five states. In 1995, the FHA EEM program was expanded nationwide.

In 2009, FHA implemented the requirements of section 2123 of the Housing Economic Recovery Act of 2008 (HERA), which increased the maximum loan amount for the FHA EEM to its current limit. HERA also placed a statutory limit on FHA EEM volume. The number of FHA EEMs may not exceed 5 percent of the total number of mortgages on 1- to 4-family homes insured by HUD (under title II of the National Housing Act) during the previous fiscal year. Over the past two decades, the FHA EEM has gained little traction. From fiscal years 1994 through 1998, 8,534 loans were completed in the seven pilot states (Farhar 2000). In more recent fiscal years, FHA EEM endorsements have ranged from 559 loans (in 2013) to 2,496 loans (in 2010) (see Figure 1). No data on the number of FHA EEM endorsements could be found for 2008 or 2009. Other similar programs have also had low participation. For example, Fannie Mae reported that its pilot EEM program averaged only 61 loans per year between 2005 and 2007 (United States Congress 2008).

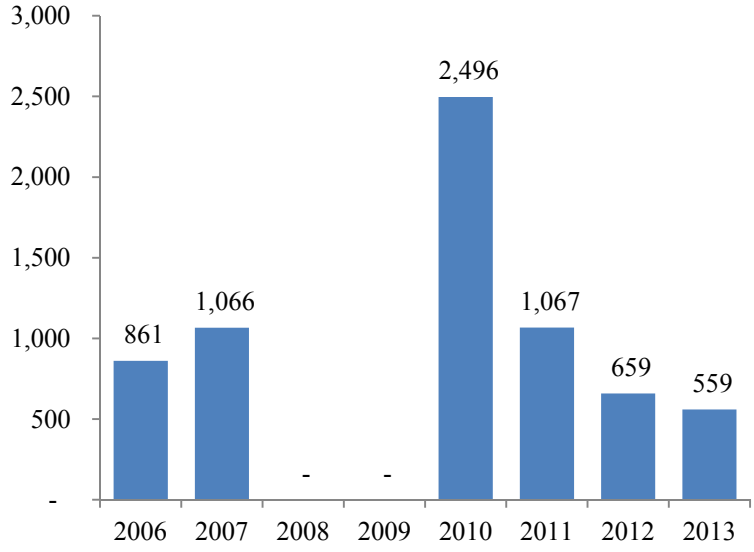

Figure 1. FHA new endorsements of Energy Efficient Mortgages (EEMs), by fiscal year (number). *Source*: HUD 2008; HUD 2012b; Data for 2012 and 2013 are previously unpublished figures provided by HUD.

Barriers to FHA EEM Originations

Low market adoption of FHA EEMs may result from obstacles on the demand side –the extent to which households seek out the product—and on the supply side – the extent to which lenders are willing to offer the product. Figure 2 details various demand and supply-side barriers that may exist for the FHA EEM. These barriers provide a framework for organizing and interpreting evidence from the available literature and feedback from industry professionals. Both the focus group results and findings from the interviews conducted to date expose the four primary demand-side barriers outlined in Figure 2. Future interviews with mortgage loan officers will address the supply-side barriers presented on the opposite side of the figure.

Possible Demand-Side Barriers

Demand for energy efficiency. Low demand for energy-saving measures may pose the most fundamental hurdle to wider use of FHA EEMs and other energy efficiency financing programs. Though these loans help households overcome one barrier to demand—the significant upfront cost of energy-saving upgrades—household interest in financing options may be precluded by other reasons for low demand, which have been discussed in depth by previous studies (Palmer et. al 2012).

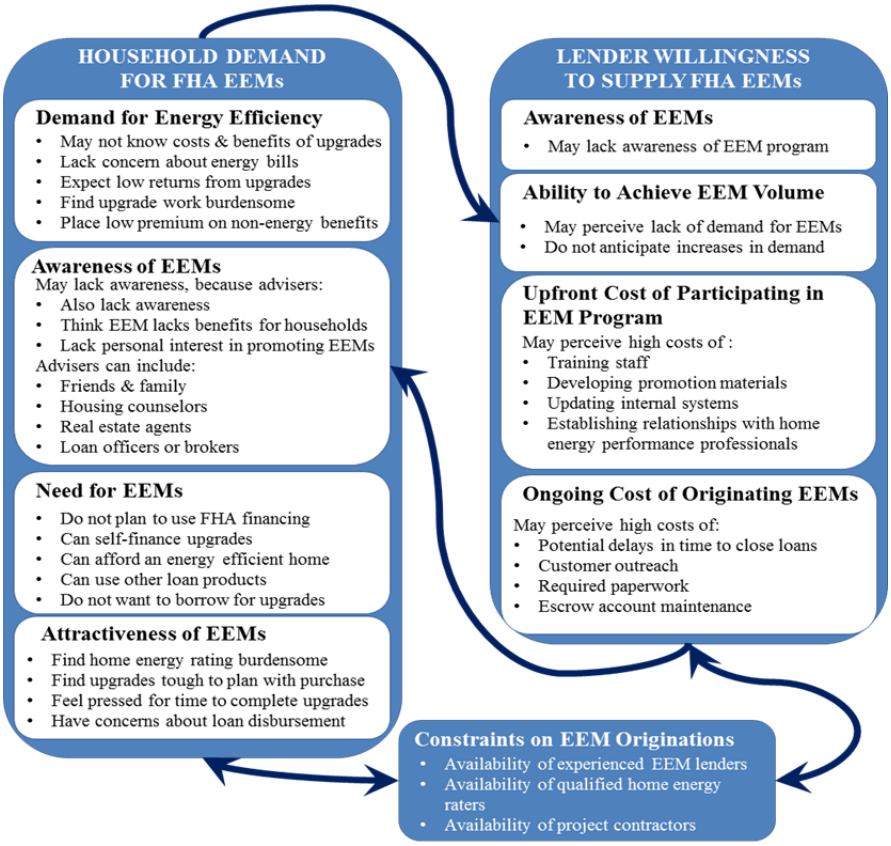

Figure 2. Possible barriers to market adoption of Energy Efficient Mortgages (EEMs) insured by the Federal Housing Administration (FHA).

Awareness of EEMs. Though the FHA EEM has existed for two decades, low household and industry awareness of the program is an often-cited barrier. In response, many energy efficiency advocates have called on government entities to coordinate public outreach efforts to promote EEMs (Gerarden 2008). However, awareness campaigns typically involve significant costs and therefore should be grounded in confidence that product promotion can someday become self-sustaining. Self-sustaining promotion depends on the extent to which: (a) the professionals who advise home buyers have an interest in discussing EEMs, and (b) EEM borrowers feel satisfied with the product and would recommend it to others.

Need for EEMs. Low FHA EEM volume could indicate that households who demand energy-saving home upgrades do not need the program, perhaps because they do not plan to use FHA financing. Recent policy changes have made FHA mortgages appear less attractive. For example, as of June 2013, borrowers of new FHA mortgages must pay annual mortgage insurance premiums through the life of the loan; previously, these payments were cancelled once the loan-to-value ratio fell to 78 percent (HUD 2013).

Even among borrowers who choose an FHA loan, home buyers may already have the ability to purchase a relatively energy efficient home. There are also several secured and unsecured loan options available to consumers. These include the FHA 203(k) program, the FHA Title I Property Improvement program, and loans offered by energy efficiency programs. Since 2011, FHA has also piloted a program called PowerSaver (based on the Title I Property Improvement program). Based on a list of proven energy measures developed by FHA and DOE, PowerSaver allows homeowners to borrow a maximum of $25,000 for terms up to 20 years to improve the energy efficiency of their home (HUD 2010a).

Attractiveness of EEMs. Limited use of the FHA EEM could signify that home buyers find specific requirements or features to be burdensome. Limited information is available regarding home buyers' experiences with the product. From 1999 to 2001, Pacific Gas and Electric (PG&E) in California offered the Time of Sale Energy Renovation (TOSER) Program, which focused on increasing the use of FHA EEMs. Interviews with FHA EEM borrowers conducted during the TOSER program evaluation did not uncover any particular difficulties with the product, with no step of the process receiving an average difficulty rating above 1.6 on a scale of 0 to 5, with 5 representing high difficulty (Lee et al. 2002). However, some buyers did express dissatisfaction with the performance of project contractors.

Possible Supply-Side Barriers

Barriers to lenders' willingness to offer FHA EEMs can be categorized as involving awareness of the product, the perceived demand for the product, and the upfront and ongoing costs of participating in the program. These conditions impact lenders' decision to promote the product, which in turn impacts consumer awareness of the product.

Lenders' perception that the FHA EEM lacked demand was noted in a review of the 1983 Fannie Mae and Freddie Mac EEM pilot program (Miller 1986). The one participating lender did not make substantial efforts to advertise the program because it did not expect its outreach to increase consumer interest in the loan significantly. Along those lines, loan officers and brokers may not be the most effective source of promotion for a loan product. As noted in the evaluation

of the TOSER program, home buyers often learn about EEMs through a real estate agent rather than through a lender (Lee et al. 2002).

Though all FHA-approved lenders can originate EEMs without additional approval, lenders may encounter upfront and ongoing costs associated with participating in the program. In testimony to Congress in 2008, a HUD official alluded to these costs when describing reasons for low EEM use, saying "… I think lenders have found it difficult – certainly when it comes to an existing homes product—to get the work done and set up the escrow fund, and so forth" (United States Congress 2008).

Methodology

This research attempts to address the following questions: (1) Considering both demand- and supply-side factors that influence decision-making, what are the most significant barriers to participation in the FHA EEM program? (2) Recognizing these barriers, what are potential strategies to better leverage home purchase transactions to trigger energy-saving renovations, particularly among low- and moderate-income households?

For insights, the study thus far has conducted a focus group in which four pre-purchase housing counselors participated, as well as qualitative phone interviews with four pre-purchase housing counselors and four real estate agents. Additional interviews with pre-purchase housing counselors, real estate agents, and mortgage loan officers will be undertaken throughout the summer of 2014. In total, eight to ten interviews will be conducted with individuals from each of these three professions. Interviewees will represent a diverse cross-section of the U.S. housing market, including different climate conditions, housing stock age, and levels of real estate market competitiveness. Approximately half of the interviews with counselors and real estate agents will include professionals who have completed an industry-recognized 'green' training program. About half of the interviews with mortgage loan officers will include professionals who have experience with the FHA EEM program.

This study is somewhat unique in that it includes the perspectives of pre-purchase housing counselors, who some researchers argue have been underutilized in terms of educating consumers about their options to lower home energy costs (Martin 2011). Housing counselors must adhere to guidelines set by HUD, which require that "…if a counselor discusses specific products, features, properties or programs, they must provide at least three reasonable and comparable alternatives…Counselors must not advise clients, or promote specific products, features or programs" (HUD 2010b). Counselors work with a subset of prospective home buyers who tend to be younger, have lower income, and have lower credit scores than the typical U.S. household (Turnham & Jefferson 2012). In fiscal year 2012, about 148,000 households received one-on-one pre-purchase counseling from HUD-approved agencies (HUD 2012c). To put this number in perspective, there were over 4.6 million existing home sales in 2012 (NAR 2014), and another approximately 368,000 new homes sold in 2012 (United States Census Bureau 2014).

The findings described below from the focus group and interviews reflect the comments made by counselors and real estate agents. Where appropriate, quotes were modified to maintain the privacy of participants.

Focus Group Findings

Demand for Energy Efficiency

New homeowners demand home improvements, but not specifically to save energy. Most of the identified upgrades were not intended to save energy:

"Cosmetic, maybe even bigger upgrades – but at least cosmetic. Painting the walls, changing the carpets, or whatever the case may be."

Perception that only sophisticated and/or environmentally-conscious home buyers would have an interest in energy efficiency. Participants generally felt that their clients and FHA borrowers do not fit the profile of a home buyer who would undertake energy-saving upgrades:

"I think the EEM is more geared to sophisticated home buyers that probably won't use FHA in the first place."

"My clients are already pinching pennies, and they just want to get in the house. They don't really care. There is a very minute population that thinks they absolutely have to have a green house."

Awareness of EEMs

Awareness of the FHA EEM is likely low among pre-purchase housing counselors. Based on an anonymous questionnaire provided to the participants, none of the counselors reported that they were aware of the FHA EEM program prior to the focus group. During the discussion, participants expressed a personal lack of knowledge about the product and suggested that perhaps other professionals also lack awareness:

"I don't think most of my mortgage brokers would even know about this."

"We really don't know about this program. We need more education about the process, the terms, and who can use it – what are the benefits."

Housing counselors reported a lack of knowledge about home energy efficiency concepts and therefore may have difficulty informing their clients about the topic:

"I think the home energy rater is not included in the pre-purchase counseling books, so we don't know who they are or what they do."

"We have to let our clients know what energy efficiency is. I mean, energy efficiency sounds good, but what does it mean? Am I going to save $100 a month? Am I going to save $15 a month? No one knows. Energy efficiency sounds good, but what is it? I don't know."

Need for EEMs

Some first-time home buyer assistance programs ensure that eligible homes meet a certain standard of quality. Participants noted that some first-time home buyer programs have property requirements that would preclude the need for an EEM:

"Clients that use the <local program> must buy a property that's ready to move in in order to qualify for the program. The program conducts a home quality inspection. The program

sends one of its own inspectors. So usually they don't do improvements in the first year, because they bought a new house or a renovated house in a new development."

The FHA 203(k) is a well-known product that home buyers try to pursue. Home buyers who want to implement energy-saving upgrades can use an FHA 203(k) loan instead of or combined with an FHA EEM. The participating counselors were aware of FHA 203(k) loans and mentioned that clients tend to pursue that product when anticipating home improvement work:

"If they know that they need to do work, they'll try to take out a 203(k) loan. It's probably the best-known program for homes that need improvement."

Attractiveness of EEMs

Planning home improvements with a home purchase may overwhelm home buyers.

"That might be too much up front, because they have a lot to deal with just understanding what they need to do to qualify for the house. Turning in paperwork to the lender, understanding their loan, and now they're going to have to plan for a home that they don't even own yet. It's going to be difficult."

It may be too difficult to complete all of the steps required by the FHA EEM. Participants expressed some concern that the EEM, and home improvement loans in general, may involve more steps than their clients can manage:

"If I tell my client that you have to hire a home inspector and then you have to hire a rater, it's a lot."

Use of a home energy rater is perceived as a positive feature of the FHA EEM. To determine whether removing the home energy rating would improve interest in the product, participants were presented with a hypothetical scenario in which home buyers could select energy-saving improvements from a list rather than work with a home energy rater. Participants expressed a negative reaction to the scenario:

"The home energy rater is a safety mechanism."

"The home buyer would have to deal with a list of home improvement people, which they probably won't feel comfortable with anyway."

Interview Findings

Demand for Energy Efficiency

The perceived demand for energy efficiency varies among both housing counselors and real estate agents. A couple interviewees noted the lack of attention paid to energy efficiency:

"Hasn't been much of a thought with all there is to get through the process."

"I don't think my clients think about energy efficiency at all unless I bring it up."

Others found energy efficiency to be more important, especially when considering utility costs:

"High interest in energy, energy-saving techniques. More so with the younger buyers."

(With 10 being the most important) "I'll give energy efficiency a 6 on a scale of 1 to 10. Lately, energy efficiency has been discussed in homeownership classes."

"I'll give utility costs an 8 out of 10 in terms of clients being concerned about them."

Awareness of EEMs

The four real estate agents had either not heard of the FHA EEM or they knew very little about it. However, all four housing counselors had heard of the product before their interviews and possessed varying degrees of familiarity with it:

"I had heard of it, but I don't know anything about it."

"I have mentioned it, but never discussed its details with clients. It's not a main topic of discussion. Sometimes it's mentioned as a Segway off the 203(k)."

"I've heard of it and am familiar with its features. I haven't seen a whole lot of people go through it, maybe only two people in the last year."

Need for EEMs

Real estate agents reported that only a few of their clients pursue FHA financing. Cash is not a popular option either, as most clients go with conventional loans:

"A couple FHA, a couple cash, everybody else uses conventional."

"Most clients use conventional financing, don't use FHA much anymore because fees are about the same between conventional and FHA. They will use a 203(k), cash is rarely used."

According to real estate agents, the need for the FHA EEM is limited. The product's relatively high costs and misaligned target audience are drawbacks:

"People who would be most interested in this product are not the ones who would participate in FHA – seems like we're dealing with a different part of the marketplace. The audience is narrowed to those who have minimal cash. A conventional buyer won't go FHA because he'll be saddled with mortgage insurance that won't go away for the life of the loan."

"Most people who go FHA are first time buyers. They don't want to coordinate all this work being done to their house. There is so much extra cost to the buyer, so much unknown."

The reaction among housing counselors was mixed.

"Something of interest for a sizable demographic of our clients. A lot of people are getting involved in our first time home buyer program. This could go hand in hand."

"A lot of clients aren't thinking about FHA. When they go to the bank, the bank wants them to use a different kind of product."

"Most people end up going through the state housing finance authority. It's probably 1 to 1.5% lower than standard FHA. Closing costs are much more controlled with housing authority."

Attractiveness of EEMs

Some interviewees expressed concern over the costs and time commitment required for the Home Energy Rating. As one real estate agent stated:

"We're seeing very short due diligence periods now. Sometimes we only have 7-10 days to get all inspections done. On top of getting HERS rating and estimates, also need to get home inspection, apply for loan, fill out lender documents. A lot to get done in a short amount of time."

Most interviewees thought the maximum allowable loan amount for home improvement costs was reasonable. However, two housing counselors expressed their concerns:

"I think it's probably low in our area. A lot of people are buying homes for $100,000. $5,000 may not be enough to put in a reasonable furnace."

"Depending on the property. For a $100,000 property, $5,000 won't get you very far. It would be helpful to know the average costs of the improvements."

The majority thought the 90-day timeframe for completing improvements after closing was sufficient, but others had reservations. For example, one of the housing counselors mentioned:

"I think it can be done. My concern is the paperwork. It's a slow moving process. There's not enough manpower to expedite the process. Weather issues can also be a problem, for example with wall insulation that has to be done from the outside. 180 days would be better."

Discussion and Conclusions

Though individual interviews with pre-purchase housing counselors, real estate agents, and mortgage loan officers are still ongoing, some key takeaways emerged from the initial focus group and interviews.

The focus group identified several significant barriers to participation in the FHA EEM program. Most importantly, counselors expressed a strong view that their client base and FHA borrowers in general are unlikely to prioritize energy efficiency. This contrasts with the mixed reactions of the interviewees, as some interviewees noted the increased interest in energy efficiency in recent years among their clients, especially younger borrowers. The interviews also revealed that utility costs have the attention of prospective home buyers. Therefore, highlighting how energy efficient improvements can lower utility costs could help generate demand for more energy efficient homes, although not necessarily EEMs.

The counselors that attended the focus group reported that they lack personal knowledge about home energy efficiency, and none of the participants had previous knowledge of the FHA EEM or the concept of a home energy rating. Even if these counselors were able to provide more information to home buyers about FHA EEMs, this would likely be insufficient to promote wider use of the product. Both the focus group and interviews suggest that FHA loans have become unappealing to prospective home buyers due to their mortgage insurance premiums, more attractive or well-known options such as first-time home buyer assistance programs and the FHA 203(k), and the fact that individuals with interest in EEMs are unlikely to choose FHA financing.

Both the focus group and interviews revealed a general concern that the FHA EEM would add complexity to the mortgage application process – which itself is already overwhelming to many first-time home buyers. On the other hand, focus group attendees expressed positive views of the role of the home energy rater in the EEM transaction and had a negative reaction to a hypothetical scenario in which the home energy rating was removed. While some interviewees shared these sentiments, others were concerned by the costs and time commitment associated with pursuing a home energy rating.

Focus group participants' responses also exposed potential strategies to better leverage home purchase transactions to trigger energy-saving renovations. Housing counseling training and home buyer education programs should incorporate more information about home energy efficiency. One of the interviewed pre-purchase housing counselors revealed that pre-purchase housing counseling is a requirement for his state's first-time home buyers' mortgage program and down payment assistance. Integrating information about home energy efficiency and EEMs

into required pre-purchase housing counseling sessions could have a significant impact on increasing prospective home buyers' awareness of and interest in EEMs.

There may also be opportunities for energy efficiency programs to partner with conventional mortgage programs that target first-time home buyers, with the goal of designing programs that incorporate EEM features with minimized burden on the transaction. Integrating these two procedures would streamline the process–though the feasibility of this option depends on the number of home inspectors who are also qualified home energy raters. Future interviews with lenders may uncover barriers to such collaboration, but may also shed light on methods to address them.

Home buyer demand for energy efficiency could also be stimulated by tying financing for energy-saving measures with financing for cosmetic improvements, which are widely desired and implemented by new homeowners. EEM-type products can be promoted through initiatives similar to the TOSER program implemented by PG&E during the late 1990s. Another potential strategy is to move the FHA EEM's home energy rating to after closing, which would theoretically reduce the upfront burden on the home buyer and also ensure that the rating does not delay the transaction. Both the focus group participants and interviewees expressed mixed reactions to this scenario, pointing to the need for further investigation.

Finally, when asked about his initial reaction to the FHA EEM, one of the interviewed pre-purchase housing counselors mentioned that lenders probably aren't promoting the product enough. This supply-side barrier will be analyzed in more depth as interviews are conducted with lenders in the coming months.

References

EIA (Energy Information Administration). 2013. *2009 Residential Energy Consumption Survey Data*. Washington, DC: EIA.

Farhar, B. C. 2000. *Pilot States Program Report: Home Energy Rating Systems and Energy-Efficient Mortgages*. Golden, CO: National Renewable Energy Laboratory.

Gerarden, T. 2008. *Rebuilding Mortgages for Energy Efficiency*. Washington, DC: Federation of American Scientists.

HUD (U.S. Department of Housing and Urban Development). 2005. *Mortgagee Letter 2005-21*. Washington, DC: HUD.

———. 2008. *Implementing HUD's Energy Strategy: Submitted Pursuant to Section 154 Energy Policy Act of 2005*. Washington, DC: HUD.

———. 2009. *Mortgagee Letter 2009-18*. Washington, DC: HUD.

_____ 2010a. *FHA PowerSaver*. Washington, DC: HUD. http://portal.hud.gov/hudportal/documents/huddoc?id=DOC_12646.pdf

———. 2010b. *Housing Counseling Program Handbook (7610.1)*. Washington, DC: HUD.

——— . 2012a. *Mortgagee Letter 2012-4*. Washington, DC: HUD.

——— . 2012b. *Affordable Green: Renewing the Federal Commitment to Energy-Efficient, Healthy Housing: Report to Congress Section 154 Energy Policy Act of 2005*. Washington, DC: HUD.

——— . 2012c. *HUD-9902 Data from Oct 1, 2011 to Jun 30, 2012*. Washington, DC: HUD. http://portal.hud.gov/hudportal/documents/huddoc?id=2012Q399021119l2.PDF

——— . 2013. Mortgagee Letter 2013-04. Washington, DC: HUD.

Lee, A., J. Larkin, M.K. Gobris, S. Boughen, & J. Staples. 2002. "Assessing the Effects of a Program to Promote Energy-Efficiency Upgrades in Existing Homes." Paper presented at the *Thirteenth Symposium on Improving Building Systems in Hot and Humid Climates*, Houston, TX, May 20-22.

Martin, C. 2011. "Home Purchase Counseling: The Untapped Green Financing Tool." Paper presented at *Strengthening the Green Foundation – Research and Policy Directions for Development and Finance*, New Orleans, LA, March 10-11. http://www.frbatlanta.org/documents/news/conferences/11green_paper_martin.pdf

Miller, R. 1986. "The Energy Efficient Mortgage: New Lending Policies to Boost Bank Acceptance." In *Proceedings of the ACEEE 1986 Summer Study on Energy Efficiency in Buildings*, 4:108-118. Washington, DC: ACEEE.

NAR (National Association of REALTORS). 2014. *NAR Existing-Home Sales Data*: *Overview Chart for Printing*. http://www.realtor.org/sites/default/files/reports/2014/embargoes/ehs-04-22-ysittwiwb/ehs-03-2014-overview-2014-04-22.pdf

——— . "Home Buyers and Sellers Survey Shows Lingering Impact of Tight Credit." *NAR News Release*, November 4, 2013, http://www.realtor.org/news-releases/2013/11/home-buyers-and-sellers-survey-shows-lingering-impact-of-tight-credit

Palmer, K., M. Walls, & T. Gerarden. 2012. *Borrowing to Save Energy: An Assessment of Energy-Efficiency Financing Programs*. Washington, DC: Resources for the Future.

Turnham, J., & A. Jefferson. 2012. *Pre-Purchase Counseling Outcome Study: Research Brief*. Report prepared for the U.S. Department of Housing and Urban Development. Washington, DC: HUD.

United States Census Bureau. "New Residential Sales in March 2014." *Joint News Release with HUD*, April 23, 2014, http://www.census.gov/construction/nrs/pdf/newressales.pdf

United States Congress. House. Committee on Financial Services. *H.R. 6078, The Green Resources for Energy Efficient Neighborhoods Act of 2008: Hearing before the Committee on Financial Services*. 110th Congress, 2nd session, June 11, 2008.