

Making the American Dream More Affordable Through Energy Efficiency Financing

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Mortgage lenders, utilities, home builders, energy efficiency advocates, Federal and state governments, and others have promoted energy efficiency financing since the late seventies with little success. In 1992, the National Energy Conservation Policy Act (EPAct92) mandated the issuance of voluntary home energy rating guidelines and provided for Federal Housing Administration (FHA) incentives for energy-efficient mortgages (42 U.S.C. 1992). Lenders, utilities, and others are now providing uniform energy ratings and workable energy efficiency financing. Energy efficiency financing offers America's 65 million home owners with utility bills exceeding \$115 Bn annually the means for tremendous cost savings. Energy efficiency financing is predicated on the premise that a home owner may borrow up to 100 percent of the first costs of energy upgrades from documented lower utility bills. This paper provides an overview of past implementation barriers, lending products now available, and the legislative and market drivers behind this renewed interest. The roles of active stakeholders including the Department of Energy (DOE), the Environmental Protection Agency (EPA), FHA, home energy rating providers, utilities, and others are described. The formation and policy role of the national Home Energy Rating Systems (HERS) Council are also documented.

INTRODUCTION

Energy-efficient homes benefit owners through lower housing costs and benefit lenders, builders, real estate agents, and utilities through increased profits. Although special loans for energy upgrades have existed since 1979, they have met with limited success. Until recently, demand for energy efficiency financing has been almost nonexistent with fewer than 50,000 energy efficient mortgages (EEMs) documented according to housing industry estimates since first introduced 16 years ago.

The 1990's are a time of significant change in the marketplace for energy efficiency lending. The EPAct92 mandated the issuance of voluntary, national energy rating guidelines and provided for more liberal FHA loan guaranty underwriting standards for energy-efficient mortgages (42 U.S.C. 1992). Utilities, looking for new, non-regulated profit centers and ways to increase services to their residential customers, are often pursuing energy financing programs.

Increased competition in the banking and home building industries is producing new financing approaches. These factors have all contributed to a renewed interest nationally in perfecting energy rating systems and workable, energy-efficient financing. Energy efficiency financing offers America's 65 million home owners with utility bills exceeding \$115 Bn annually the means for tremendous cost savings.

MARKET BARRIERS

Numerous problems have contributed to the lack of success for energy efficiency financing. Market barriers identified

by the national HERS Council, while the author served as its Chairman from 1994 to 1995, include:

- Perceived risk—The secondary mortgage lenders have little enthusiasm for energy efficiency loans because of the increased potential for loss if the loan defaults.
- Non-uniform energy ratings—Mortgage lenders demand uniformity when packaging loans for resale. Unfortunately, there are numerous rating approaches, including performance and certified ratings that contribute to the lenders' aversion.
- Small profit potential—Lenders do not view energy efficiency financing as a profitable lending area due to overall weak consumer demand.
- Increased paperwork—Energy efficiency documentation for creates additional paperwork and can slow a loan process already overburdened.
- Consumer awareness and incentives—Lenders seldom advertise energy-efficient mortgages. Therefore, consumers are generally unaware of existing energy-efficient mortgage programs such as the two-percent stretch loan available nationwide through Fannie Mae and Freddie Mac.
- Financial incentives—Without an EEM, purchasers can borrow no more money for a very efficient house than for one meeting minimum code requirements, although one may cost hundreds of dollars more. Additionally,

utility DSM rebates for more efficient heating and cooling equipment, insulation, lighting, and appliances are rapidly disappearing.

Fortunately, the market barriers listed above are diminishing due to the availability of Federal energy-efficient mortgages, the development of uniform rating system guidelines, and increased competition in the utility and banking industries.

MARKET SET FOR ENERGY EFFICIENCY FINANCING INCREASE

Since 1990, significant marketplace changes and removal of institutional barriers are causing renewed interest and guarded optimism about the future of energy efficiency financing. Structural marketplace changes impacting the increased viability of energy efficiency financing include:

- New Federal EEM programs,
- Development of uniform, national home energy rating guidelines,
- Increased competition in the banking, housing, and utility industries,
- Establishment of new, industry-based, support organizations for HERS and EEMs, and
- A shift in the Federal roles of DOE and EPA from one of regulator to facilitator.

New Federal EEM loan programs

EPAct92 created a special, five-state, FHA EEM pilot program that was expanded nationwide in October 1995 (FHA 1995). For the very first time, a workable EEM program exists in all fifty states for home owners. The FHA EEM loan guaranty program removed two key barriers by requiring no additional cash down payment and providing automatic approval for the cost-effective energy upgrades. Congress approved similar changes to the Department of Veterans' Affairs (VA) program in 1992.

Uniform home energy rating guidelines issued by DOE

During the DOE national HERS collaborative in 1990 to 1992, mortgage lenders indicated that the lack of uniform, technically verifiable, energy rating tools prevented them from offering incentives beyond the expanded stretch two-percent qualifying ratio for energy efficient mortgages

(Farhar & Eckert 1993). As a result of EPAct92, DOE issued a Notice of Proposed Rulemaking on July 25, 1995, for voluntary HERS guidelines. In April 1996, DOE asked for addition input on three remaining issues (10 C.F.R. 437).

Unfortunately, the success of the voluntary guidelines remains to be seen. Significant controversies regarding fuel neutrality, accreditation, and the lack of consensus now surround issuance of the HERS final rule. Success will depend upon how quickly the housing industry embraces the final DOE rule and ultimately upon the willingness of Fannie Mae and Freddie Mac to increase mortgage loans by the amount of the expected positive cash flow from improvements. The accuracy of HERS to determine utility savings is yet to be field tested and also could impact final secondary market acceptance.

Increased industry competition creates opportunity

The 1990's produced a dramatic increase in competition and decontrol in the banking and utility industries—key providers of EEMs. Bank mergers are creating much larger, more competitive, national financial institutions. This fact is evidenced by a growing trend nationally by banks to offer free checking, ATM access, and on-line banking services as loss-leaders to new customers.

Likewise, the utility industry is undergoing dramatic regulatory changes from increased competition due to the lower marginal costs for new generation capacity. Faced with the prospects of decontrol and increased competition, many utilities are considering new regulated and non-regulated services. Also, fierce competition among home builders in areas of rapid economic growth are creating niche market opportunities for builders (Verdict 1995). Unfortunately at the same time of increased housing and banking competition, cutbacks in utility DSM services are having a negative impact in some locales.

Energy features provide lenders and builders with market differentiation and help them qualify more home buyers, in addition to the more dominant consumer preference factors such as price, location, and aesthetics.

Industry-based organizations created to promote EEMs and HERS

Renewed interest in HERS and EEMs, driven by industry competition, DOE grants to the initial five FHA EEM pilot states, and the availability of new, federal EEMs nationwide has spawned the creation of several, new industry-based groups. These organizations are dedicated to removing market barriers, promoting energy financing, helping create

other rating organizations, and promoting energy ratings at the national and local levels.

Organizations and programs created since 1990 for promoting EEMs and HERS include:

- HERS Council—a nonprofit organization of HERS/EEMs stakeholders located in Washington, D.C.,
- Residential Energy Services Network (RESNET) sponsored by the National Association of State Energy Officials and EPA,
- EPA's Energy Star Home program,
- E-Seal energy and environmental certification program for investor-owned utilities, and
- Numerous state-based home energy rating systems including California, Florida, New York, Colorado, Mississippi, and Virginia. There were fifteen active state-based rating organizations operating in 1995 (Reinbolt 1995).

Home Energy Rating Systems Council. Immediately following the DOE national HERS/EEMs collaborative and the passage of EPAct92, a small group of utilities, states, builders, rating organizations, energy nonprofit, and others meet in December 1992 in Arizona to craft an educational organization dedicated to creating uniform HERS guidelines linked to EEMs. The HERS Council was officially incorporated in February 1993 with an initial board of directors consisting of nineteen members from the rating, utility, home builder, lenders, consumer, manufacturing, state and local government, equipment dealers, and one member-at-large. A technical committee of fifteen HERS council members, deliberated for eighteen months on a set of technical guidelines for HERS that would meet the EPAct92 requirements and win consensus from the broad representation of the HERS Council.

In October 1994, the full Board approved an initial set of uniform guidelines for DOE in preparation of their proposed rulemaking (HERS Council 1994). Since that time, a number of controversial issues regarding fuel neutrality, technical accuracy, and accreditation have caused broad-based support for the original set of guidelines to unravel. Housing and financial industry acceptance ultimately depends on DOE's ability to craft an acceptable set of final, voluntary guidelines. Without broad-based consensus, the acceptance of uniform HERS by the lending industry remains in serious jeopardy. Industry stakeholders hope for a final voluntary rule during the summer of 1996 from DOE.

Federal role shifts from regulator to one of market facilitator

Federal agencies have shifted roles from strict regulation during the late 1970's when EEMs were first conceived, to one of facilitating changes in the marketplace in the 1990s. The voluntary HERS guidelines would have been mandatory, given the approaches taken in Washington, DC following the oil embargoes. Congress' initial solution to increasing building efficiency following the first oil crisis was the creation of mandatory Building Energy Performance Standards (BEPS). These mandatory standards were sharply rejected by the building and design industry as unworkable and repealed by the U.S. Congress in the early 1980s.

DOE is helping pilot test the new FHA energy efficient mortgage program in six states to facilitate the use of uniform HERS tied to EEMs. Also, the new Environmental Protection Agency (EPA) Energy Star Home Program is designed to increase market demand for very efficient housing and to provide builders with highly visible market identity. This program is promoted voluntarily through the nation's home builders. Similar to EPA's Energy Star programs for computers and energy efficient appliances, this voluntary program is tied to DOE's uniform HERS rating scale at 5-Stars (approximately 30 percent greater efficiency than CABO MEC 1993) or 86 points (HERS Council 1994).

NEW ENERGY EFFICIENCY FINANCING PROGRAMS

Several new energy efficiency financing programs were created in response to increased market competition and the new Congressional directives in EPAct92. These new initiatives fall into three categories:

- Federally guaranteed EEM programs,
- Special, secondary mortgage lender pilot EEM programs, and
- Utility-sponsored energy home improvement loan programs.

These new EEMs and energy home improvement loans are increasing the availability of attractive energy efficiency financing for home owners and home buyers. For example, California is actively promoting energy efficiency financing and has seen a significant increase in consumer demand. Also, California is generating approximately 50 percent of all FHA EEMs (Dwyer 1996). Heavy training, promotion to lenders, and active utility involvement are contributing to the success of energy efficiency financing in California.

Federal Energy Efficiency Financing Programs

FHA EEM program. The FHA energy-efficient mortgage program covers both new and existing houses and is available in all fifty states (FHA 1995). Key loan features include:

- Maximum loan amount is \$152,362 plus the cost of the eligible energy-efficient improvements,
- Cost improvements are limited to \$4,000 or 5% of the property value, not to exceed \$8,000,
- Borrowers automatically qualify for the higher loan amount if an energy consultant determines upgrades are cost-effective,
- No additional appraisal is required, and
- No additional cash down payment is required.

The initial FHA EEM pilot program had a slow start with only 860 loans made in 1995. During the first 7 months of nationwide expansion, there has been a dramatic increase with 976 loans made—almost double the rate of the pilot program (Dwyer 1996).

FHA 203 (k) rehab loan with an EEM. The FHA 203 (k) rehab loan has the identical incentives as the FHA EEM. Combining an EEM with the base 203 (k) loan has been approved by FHA officials and can add significant numbers of EEMs nationwide if promoted by FHA (Dwyer 1996). The original program is growing rapidly due to heavy promotion by FHA management as a field office performance measure.

VA EEM program. The VA energy-efficient mortgage is available to qualified military personnel and veterans. VA energy loan requirements are similar to the FHA program. The maximum amount for energy improvements is \$6,000 over the base loan. Buyers must have an energy analysis by a qualified energy consultant for improvements over \$3,000. Loan amounts for energy features must also be supported by a market appraisal.

Details for obtaining an federally-insured EEM may be obtained from a local lender who originates these loans or the local FHA and VA offices.

Secondary Lender Energy Financing Programs

Fannie Mae and Freddie Mac are secondary mortgage lenders who purchase residential mortgages from lenders and

mortgage companies, thereby providing capital liquidity in the marketplace. They raise capital by packaging residential loans as securities and selling them to investors on Wall Street.

Fannie Mae energy efficiency home improvement loan program. In 1994, Fannie Mae initiated a new energy home improvement loan pilot for existing homeowners using a utility as the middleman for marketing, market aggregation and risk-sharing. Fannie Mae provides below-market interest rates on loans to \$15,000 and up to 10 years on an unsecured basis for approved energy retrofits (Carey 1995). The pilot began at Pacific Gas and Electric (PG&E) and is known as the Home Energy Loan Program (H.E.L.P.). In 1995, PG&E pilot expanded the program system wide with \$30 million in loans estimated the first year (Altscher 1996). They are now loaning \$3 million dollars monthly in HELP loans, far exceeding initial expectations. Fannie Mae offers this program nationwide, primary through gas and electric utilities.

Fannie Mae and Freddie Mac EEM programs. In 1995, Freddie Mac and Fannie Mae initiated a pilot energy efficient mortgage program in Colorado that provides additional money for cost-effective energy improvements. Both secondary lenders have agreed to use a present value calculation performed by the Colorado energy rating system to determine the value (of improvements) that can be added to the home's appraised value. Using a new mortgage loan addendum (Form 70B/1004B to replace the Fannie Mae Form 1004A and Freddie Mac Form 70A), real estate appraisers can add the lower of cost or present value of the improvements to calculate the total market appraised value of the home. Additionally, the energy rating of the home will be included in the real estate multi-list system (Lubbof 1995). Fannie Mae and Freddie Mac have indicated a general willingness to consider other state pilots based upon the uniqueness of local housing market characteristics.

Fannie Mae and Freddie Mac continue to underwrite two-percent stretch loans nationwide. Few borrowers use this feature, however. Also, local lenders have existing discretion to increase qualifying ratios beyond the two percent stretch without the added hassle or expense of an energy rating.

Utility-Sponsored EEM Program

Facing increased competition and the specter of deregulation, electric utilities are seeking new ways to maintain their customer base. Residential energy efficiency loans provide an excellent opportunity to offer new, competitive services to residential customers. Pacific Gas and Electric is an excellent example of one utility who has shifted from whole-house residential rebates to offering an attractive energy-efficient mortgage package in conjunction with several mortgage lenders in their service territory. Their Energy Comfort

Home new home program requirements exceed California's stringent energy code by approximately 15 percent and automatically qualify purchasers for 10 percent more home, at below-market interest rates, and with reduced closing costs (Altscher 1996). The lenders benefit from market segmentation of high-value homes and increased loan demand generated from PG&E's extensive advertising. Response was excellent with over 40 percent of the 15,000 people, who responded to ads in the fall of 1995, visiting a PG&E Energy Comfort Home (Altscher 1996).

CONCLUSIONS

Several factors have contributed to the increased availability of energy efficiency financing: (1) increased competition among lenders, utilities and home builders, (2) availability of Federal EEM programs in all fifty states, (3) soon-to-be completed HERS guidelines by DOE, (4) Fannie Mae and Freddie Mac pilot testing of a new EEM approach, and (5) Fannie Mae energy home improvement loan programs.

The slow start in the late 1970's for EEMs may have finally been reversed. If the initial acceptance in California in the 1990's by consumers of energy-efficient mortgages and energy home improvement loans is a good indicator, families nationwide are moving closer to the American dream, afforded through more accessible energy efficiency financing.

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