

Financing Energy Efficiency

A Handbook for Iowa Lenders

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for

*The Iowa Association of Municipal Utilities
with a grant from the
Iowa Energy Center*

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A Handbook for Iowa Lenders

Why Should A Lender be Concerned with Financing Energy Efficiency?

David Carey, Director of Energy Finance for Fannie Mae said, “This ground-floor opportunity promises to be one of the more attractive new product offerings in recent times.” Today’s mortgage market is becoming more competitive. Mortgage lenders are looking for ways to bring in more customers. Becoming involved with Energy Efficiency Financing is a new and exciting way for lenders to increase their market share. The following are a list of reasons why lenders should be interested in financing energy efficiency:

- **Larger & More Profitable Loans.** Energy efficient homes generally cost more than conventionally built homes. This results in a larger loan with higher loan origination fees, etc. When underwriting FHA and VA energy efficient mortgages, lenders can exceed the statutory federal loan limits up to the amount of the energy improvements. Energy efficiency is no longer a problem.
- **New Business From Trade Ally Partnerships.** There is a whole industry out there promoting energy efficiency financing. Developing relationships with energy efficient builders, utilities, and vendors of energy efficient products can result in increased business. These groups are often very eager to funnel new business to a lender that expresses an interest in energy efficiency. You will have expanded your marketing efforts through the efforts of others without having to spend a dime.
- **Lenders Can Qualify More Buyers.** Since the advent of the Energy Efficient Mortgage (see discussion in next chapter) more people can qualify to purchase an energy efficient home than could qualify for the same house if it were not energy efficient.
- **No Great Increase in Paper Work.** Under the new FHA and VA guidelines, the underwriting process is reasonable and straightforward. Only one new form is required and in Iowa that form is prepared by Energy Rated Homes of Iowa.
- **Lower Utility Bills Can Lead To Lower Client Defaults.** Since your customers will have lower utility bills, they will have more financial resources to put towards their mortgage. This should result in fewer defaults.

There are many reasons for you a lender to become interested in financing energy efficiency. Let’s find out first what Energy Efficiency Financing is all about.

What Is Energy Efficiency Financing?

The whole concept of Energy Efficiency Financing began when builders started building homes in response to the rising energy costs of the 1970’s. Those cutting edge builders who added extra insulation, spent extra effort tightening their homes, upgraded their windows, and/or installed a higher efficiency heating and cooling system were now at a price disadvantage

competing with the average builder. The homes looked the same, but the initial cost was now a couple thousand dollars more. Builders tried long and hard to explain that their homes would be less expensive to own on a monthly basis than the traditionally constructed home, but many went out of business trying.

Another problem was that by increasing the first cost of their homes, fewer people could qualify to purchase them. They now had a smaller market to sell to. Lenders only considered principal, interest, taxes and insurance when figuring debt-to-income qualifying ratios. Lower energy bills were not part of the standard equation.

The Energy Efficient Mortgage (EEM) was born in 1979 when President Carter signed an executive order directing federal lenders to offer consumers incentives for energy-efficient homes. Fannie Mae & Freddie Mac responded by expanding the qualifying ratios by what has become known as the “two percent stretch.” This “two percent stretch” allows a lender to stretch both the housing debt-to-income ratio and the total debt-to-income ratio by two percentage points. These ratios are typically 28% and 36% respectively. This two percent stretch increases those qualifying ratios to 30% and 38% respectively.

How Do You Determine “Energy Efficient?”

This was good, but the problem was the ever present question, “What is Energy Efficient?” To solve this problem, a new energy efficiency evaluation tool was developed called a Home Energy Rating System (HERS). HERS typically use independent evaluators to determine the energy efficiency level of a home. The U.S. Department of Energy is currently working on voluntary guidelines for HERS programs. These guidelines call for a home to be rated on a 100 point scale -- the higher the number the more energy efficient the home. It has been determined that a home that scores an 80 out of 100 is considered to be “energy efficient” by the major lending groups. There are about 15 states that have Home Energy Rating Systems in place.

Here in Iowa we have our own Home Energy Rating System called Energy Rated Homes of Iowa (ERHIA). ERHIA is part of Energy Rated Homes of America which is recognized by all the major lending groups. ERHIA has certified raters around the state and rates homes on the 100 point scale and then converts them to star ratings. ERHIA rates homes from one (★) to five-and-a-half stars (★★★★★+), with five-and-a-half (★★★★★+) being the best. Homes that meet the four star (★★★★) level (80 points on the 100 point scale) are considered “energy efficient” and qualify for an Energy Efficient Mortgage.

The best thing is that you as a lender do not have to worry about determining “energy efficient.” You can leave that up to an independent rater. You can concentrate on what you know best ... financing. Today there are several energy efficiency financing products to handle different situations. The following sections discuss each product in detail.

Energy Efficient Mortgages

What is an Energy Efficient Mortgage (EEM)? The EEM was developed by the lending industry to give the builder/buyer of an energy efficient home credit for the fact that the home will have lower energy bills than a typical home. The program is typically used for new energy efficient homes, but can also be used for existing homes that are already energy efficient.

An EEM allows a lender to stretch both the housing debt-to-income ratio and the total debt-to-income ratio by two percentage points. These ratios are typically 28% and 36% respectively. This two percent stretch increases those qualifying ratios to 30% and 38% respectively. Let's look at an example of the effect that this has.

You have clients that come in and want to purchase one of the nice new three bedroom homes at the edge of town. They have a choice of two different builders. One builds a good house but with little effort to make it energy efficient. The second builder has invested time and materials to provide clients with homes that are comfortable and energy efficient. The conventional home costs \$100,000. The energy efficient home costs \$105,000 (stretched for effect, energy efficiency typically add 2-3% to the cost of a new home). Both look about the same and have the same amenities. The customer will probably be drawn to the home that costs five thousand dollars less, but is that their best investment and will they be able to qualify?

Looking at the table below, we see that the monthly PITI for the energy efficient home goes up \$33 per month. However, when we compare energy bills, the energy efficient home has \$37 dollar lower utility costs. It costs your clients less each month to own the energy efficient home right from day one. Four dollars isn't exactly winning the lottery, but their mortgage payment will remain the same for the next thirty years. Can you guarantee their utility bills will remain the same for thirty years? And their positive cash flow will be even greater when you consider that mortgage interest is tax deductible and energy costs are not!

The bigger difference shows up in the income needed to qualify. The conventional house requires a monthly income of \$3,013, whereas the energy efficient home only requires a monthly income of \$2,922. That's over \$90 less per month or over \$1,100 per year less income needed to qualify. Energy Efficient Mortgages open new houses up to more and more people.

Typical Home	Component	Energy Eff Home
\$100,000	Home Price	\$105,000
\$10,000	Down Payment	\$10,500
\$90,000	Mortgage Amount	\$94,500
8%	Interest Rate	8%
30	Term (Years)	30
\$660	Monthly Mortgage Payment	\$693
\$167	Taxes	\$167
\$17	Insurance	\$17
\$844	PITI	\$877
\$109	Monthly Energy Bills	\$72
\$953	PITI+Energy	\$949
\$3,013	Monthly Income Required EEM	\$2,922
\$36,159	Annual Income Required EEM	\$35,070

Increasing the number of people who qualify to purchase an energy efficient home is one benefit of an EEM. Another benefit is qualifying clients for a bigger mortgage. Using the same example, if your client had an annual income of \$36,159, they would only qualify for a \$90,000 mortgage. However, if the home is energy efficient, the client would qualify for a \$98,213 mortgage. Purchasing power would increase by \$8,213. Since the extra cost for energy efficiency measures is typically only \$2,000-\$5,000, they would have an additional \$3,000-\$6,000 to spend on other amenities like a whirlpool tub, a larger kitchen, better flooring, or that enormous deck that they want.

This is great for new homes that are built to be energy efficient, but what about all the existing homes out there that are not energy efficient? There is a mortgage product for them also. It's called the Energy Improvement Mortgage.

Energy Improvement Mortgages

What is an Energy Improvement Mortgage (EIM)? The EIM was developed by the lending industry to give the buyer of an existing home the opportunity to borrow more money at the time of sale or refinancing to make their dream home more energy efficient. Again, the lending industry recognizes that saving energy reduces the cost of home ownership and frees up more money to assist in paying the mortgage, besides increasing the comfort and durability of the home.

The extra dollars borrowed to add additional insulation, replace the old heating/cooling system, or tighten the home are rolled into the new mortgage and spread over the mortgage term (usually 30 years). Let's look at an example:

Typical Home	Component	Energy Improved
\$100,000	Home Price	\$100,000
\$10,000	Down Payment	\$10,000
	Energy Improvements	\$4,000
\$90,000	Mortgage Amount	\$94,000
8%	Interest Rate	8%
30	Term (Years)	30
\$660	Monthly Payment	\$690
\$167	Taxes	\$167
\$17	Insurance	\$17
\$844	PITI	\$873
\$120	Monthly Energy Bills	\$80
\$964	PITI + Energy	\$953

If your client bought the energy improved home, they would have a total monthly housing cost of \$11 less (\$964 - \$953) than if they had purchased the typical home. As energy prices rise, they will be further "insulated" from the rate increases.

If you were in the market to purchase a home and could get a tighter, more comfortable home while paying less each month, what would you do? How would your clients respond to you if you helped make that happen for them? Do you suppose they'd tell their friends about you?

Energy Improvement Loans

What about those who aren't purchasing a home, but want to make their existing home more energy efficient? What's available for them? Fannie Mae just launched a new program called the Residential Energy Efficiency Improvement Loan program. Fannie Mae has set up the program so they can purchase these loans on the secondary market, freeing up local funds. See the Fannie Mae Residential Energy Efficiency Improvement Loan flyer in the Fannie Mae section of this handbook.

Setting up an Energy Efficient Financing Program

Establishing a successful Energy Efficiency Financing program is like designing any new successful business. The following are the keys to being successful with Energy Efficiency Financing:

1. **Make a Commitment to Energy Efficiency.** Make a long term commitment to creating a market for energy efficiency homes in Iowa.
2. **Contact Energy Rated Homes Of Iowa.** Energy Rated Homes of Iowa (ERHIA) is your key contact for establishing an Energy Efficiency Financing Program. ERHIA maintains a list of lenders who are willing to process EEMs and EIMs.
3. **Contact Your Local Utility.** Many utilities in Iowa, both investor owned, municipals and RECs have new construction programs that would qualify participating homes for an Energy Efficient Mortgage.
4. **Align Yourself with Trade Allies.** Identify those local builders, real estate agents, and HVAC contractors who are dedicated to energy efficient housing. These allies will bring you new business if they know that you are willing to work with them on promoting energy efficiency. Working with the local trade allies will also promote economic development for your community.
5. **Set Energy Financing Program Procedures.** You need to establish internal policies based on the national programs that you plan to participate with. If you are processing FHA loans you need to set procedures that follow their guidelines. If you plan to sell your mortgages on the secondary market, establish your guidelines according to the Fannie Mae or Freddie Mac guidelines. If you plan to keep the mortgages in house, it is still a good idea to follow the national guidelines.
6. **Train Staff.** To establish a successful Energy Financing Program you must instill a degree of enthusiasm in your loan processing staff. They must know why you are interested in processing Energy Efficiency Financing loans and most important, they need to know how to process the loans. Training of staff is critical to a successful program.

Energy Efficiency Loan Processes

Providing Energy Efficiency Financing to your clients is not a difficult or cumbersome process. There are only a few extra steps required in the loan process. The best part is there are no special approvals required by FHA, VA, Fannie Mae, and Freddie Mac and the time required to bring underwriters up to speed is minimal. The following steps should get you through the loan process with minimal effort:

1. Locate certified “Energy Raters” that are near your community (a list is provided in the back of this handbook).
2. Make sure that an energy rating and financial analysis of savings is included with the loan application process before sending the loan package to the underwriter (there are different forms for FHA/VA/Conventional stretch loans).
3. Obtain normal loan underwriting approvals, internally, and externally.

FHA Guidelines

The following pages contain copies of FHA/HUD documents that deal with Energy Efficiency Financing. The documents included are listed below:

HUD CIRCULAR LETTER TAM-96-01 - March 14, 1996

Mortgagee Letter 95-46

Mortgagee Letter 95-40

Mortgagee Letter 93-13

**U.S. Department of Housing and Urban Development
Tampa Area Office**

HUD CIRCULAR LETTER TAM-96-01

March 14, 1996

TO: All Mortgagees originating FHA-insured loans through HUD's Tampa Area Office

FROM: Nikki A. Spitzer, Director, Single Family Housing Division

CONTENTS: Energy Efficient Mortgages

Energy Efficient Mortgages

Ref: HUD Handbook 4155.1 REV-4, CHG1
Mortgagee Letter 95-46
Mortgagee Letter 93-13

In accordance with ML95-46, Energy Efficient Mortgages (EEM) may now be processed in Florida. The EEM recognizes the energy cost savings of energy efficiency improvements that increase the energy efficiency of a home. The resulting utility cost savings will allow homeowners to devote more of their income to mortgage payments. The improvements may include energy efficient equipment as well as active and passive solar technologies.

Under the EEM program, 100 percent of the eligible energy efficient improvements may be financed into the mortgage, subject to certain dollar limitations. The program does not require an appraisal of the energy improvements nor further credit qualification of the borrower.

To be eligible, the energy efficient improvements must be "cost effective". The cost of the improvements (including maintenance costs) must be less than the total present value of the energy saved over the useful life of the improvements. The cost of the improvements and the estimate of the energy savings must be determined based upon a physical inspection of the property by an accredited home energy rating system (HERS) or qualified energy consultant. At this time, the Department of Energy (DOE) has not published the final rule concerning HERS evaluations. In the interim, the Florida Building Energy Rating System (BERS) will be used until such time that DOE final rule is published.

In order to process an EEM case, the lender must require a BERS Residential Class I evaluation and certification. The certification must provide the total expected yearly energy savings and expected yearly maintenance costs for the property. This information will be used to determine the Present Worth of Estimated Savings.

Lenders may obtain a list of Certified Class I Raters, for new and existing residential properties, by contacting the following:

State of Florida, Department of Community Affairs
Building Rating Energy Program
2740 Centerview Drive
Tallahassee, FL 32399-2100
Telephone: 904-487-1824

October 6, 1995

**OFFICE OF THE ASSISTANT SECRETARY
FOR HOUSING-FEDERAL HOUSING COMMISSIONER**

Mortgagee Letter 95-46

TO: ALL APPROVED MORTGAGEES

SUBJECT: Single Family Loan Production - Expansion of the Energy Efficient Mortgage Program

On May 24, 1993, the Department implemented the FHA Energy Efficient Mortgage (EEM) Pilot Program for existing one and two-unit properties in the following states: Alaska, Arkansas, California, Vermont, and Virginia. The Department is now expanding the EEM Program nationwide, and includes new construction in compliance with Section 513 of the Housing and Community Development Act of 1992.

The detailed program requirements, processing instructions and underwriting procedures for the EEM Program remain the same as those set forth in Mortgagee Letter 93-13(attached). The only modifications to Mortgagee Letter 93-13 are that both 203(k) Rehabilitation Mortgages and Adjustable Rate Mortgages are now allowable under the EEM Program, and that new as well as existing construction is included. The expansion of the EEM Program is effective immediately.

An EEM recognizes the energy savings of a home that has "cost effective" energy saving improvements that increase the energy efficiency of a home. Because the home is energy efficient, the family will save on utility costs and thereby can afford to devote more of its income to the monthly mortgage payment. Energy efficiency improvements can include both energy saving equipment and active and passive solar technologies.

Under the FHA EEM Program, a borrower can finance into the mortgage 100 percent of the cost of eligible energy efficient improvements, subject to certain dollar limitations, without an appraisal of the energy improvements and without further credit qualification of the borrower.

To be eligible for inclusion into the mortgage, the energy efficient improvements must be "cost effective," i.e., the total cost of the improvements (including maintenance costs) must be less than the total present value of the energy saved over the useful life of the improvements. The mortgage includes the cost of the energy efficient improvements in addition to the usual mortgage amount permitted by regulations. The FHA maximum loan limit for the area may be exceeded by the cost of the eligible energy efficient improvements. The cost of the energy improvements and the estimate of the energy savings must be determined based upon a physical inspection of the property by an accredited home energy rating system (HERS) or qualified energy consultant.

For new construction, the energy improvements must be over and above those required for compliance with the current FHA energy conservation standards for new construction. The estimate of the energy savings in new construction must be based upon a comparison of plans and specifications of the house with the additional energy saving improvements to those of the basic house which complies with the current FHA energy conservation standards. Presently, these standards are those of the CABO 1992 Model Energy Code (MEC).

In order to obtain a more accurate estimate of the cost savings for each improvement, an alternative Energy Efficient Mortgage Worksheet (Attachment B to Mortgagee Letter 93-13) has been created. The new worksheet (Attachment B1) includes an Energy Efficient Premium Table which allows each eligible improvement to be assigned its own useful life. The optional worksheet is attached and can be used as an alternative to Attachment B of Mortgagee Letter 93-13.

Please note that the program disclosure statement requirement has changed. The program no longer requires that all applicable borrowers receive a separate Disclosure Statement informing them of the FHA EEM program. Instead, at the next revision, language will be added to the FHA disclosure notice, Important Notice to Homebuyers. Realizing the importance of some form of disclosure notice, lenders are requested to use alternative methods of informing potential homebuyers of the EEM Program. As a temporary substitute, lenders may use the attached FHA Fact Sheet as a disclosure statement. If you have any questions concerning this Mortgagee Letter, please contact the local HUD Office.

Sincerely yours,

Nicolas P. Retsinas
Assistant Secretary for Housing-
Federal Housing Commissioner

Mortgagee Letter 95-40

TO: ALL APPROVED MORTGAGEES

SUBJECT: Single Family Loan Production - Revisions to the 203(k) Rehabilitation Mortgage Insurance Program

This Mortgagee Letter describes additional changes undertaken by the Department to further streamline the Section 203(k) Rehabilitation Mortgage Insurance program. Since increasing the supply of affordable housing through rehabilitation and repair of existing housing stock is one of the primary goals of FHA, we intend to continue to support the Section 203(k) program and the lenders that participate in it.

The revisions described below are the result of a Working Group that met in June 1995, consisting of HUD Offices, lenders, non-profit organizations and government agencies. These changes are effective immediately.

I. THE CONSULTANT

Responsibility: The home inspection and completion of the work write-up and cost estimate are essential elements in processing the Section 203(k) insured loan, in addition to the underwriting steps applicable to a regular mortgage. Therefore, when a consultant is used, it is the responsibility of the consultant, as well as the local HUD Office and the lender to assure that the architectural exhibits are properly prepared. Mortgagee Letter 94-1 explains the role of consultants to borrowers under the 203(k) program.

Each HUD Office must assure that the consultants and plan reviewers are properly trained. On a representative sampling, a consultant's work write-ups and cost estimates are to be desk reviewed by the HUD Office; a field review may also be necessary. Results of the reviews should be forwarded to the consultants, plans reviewers and lenders. These reviews are also integral parts of the annual re-certification sessions for consultants, plans reviewers, and inspectors.

When acceptable by the local HUD Office, the consultant can also perform inspections during the construction period. A Direct Endorsement (DE) staff consultant can also do the inspections for that lender as well as its correspondent lenders. A checklist designed to help the consultant in preparing the architectural exhibits is included as Attachment 1.

Qualifications: HUD requires at least three years experience as a remodeling contractor, general contractor or home inspector in order to qualify as a 203(k) consultant. The consultant must be able to perform home inspections, prepare the necessary architectural exhibits, and be able to complete the draw inspections on the property during the construction phase of the project. A state licensed architect or engineer may also be accepted. To apply for HUD acceptance, the consultant must submit his or her qualifications (resume') to the local HUD Office and be trained.

In addition, on a demonstration basis through January, 1996, we will also grant automatic acceptance of consultants meeting the above experience requirements and trained and certified by either Countrywide (818-304-5602) or CrossLand Mortgage Corporation (410-825-5700). Both Countrywide and CrossLand will provide lists of trained individuals to the appropriate HUD Offices and to HUD Headquarters. Consultants trained by either Countrywide or CrossLand (or other trainers acceptable to the local HUD Office) should provide a copy of the training certification stating that they have acceptably completed the 203(k) Consultants Training Course. Consultants approved by either are allowed to do business with other lenders and within any HUD jurisdiction and are also approved to do Section 203(k) inspections.

Fees charged by consultants: The fee charged by the consultant can be included in the mortgage as a part of the cost of rehabilitation. The consultant must enter into a written agreement with the borrower that completely explains what services will be rendered and the fee charged. Neither HUD nor the lender will be responsible to the consultant for fees owed by the borrower.

A fee of \$400 is acceptable for a property with repairs less than \$7,500; \$500 for repairs between \$7,501 and \$15,000; \$600 for repairs between \$15,001 and \$30,000; and \$700 for repairs between \$30,001 and \$50,000; \$800 for repairs between \$50,001 and \$75,000; \$900 for repairs between \$75,001 and \$100,000; and \$1,000 for repairs over \$100,000. An additional fee of \$25 can be charged for each additional unit in the property under the same FHA case number. For this fee, the consultant inspects the property and provides all required architectural exhibits.

In some cases, the borrower will request a feasibility study by a consultant prior to submitting a sales contract to a seller. An additional fee of \$100 can be included in the mortgage for this type of service. Basically, the consultant will do a quick home inspection of the property, with a "rough estimate" of the work that will be necessary to comply with HUD's requirements. Maximum fees for compliance inspections on completed work will continue to be set by each HUD Office.

If additional services are required of a state licensed architect or engineer, then the fee is not restricted by the above schedule and can be included in the mortgage as a cost of rehabilitation, provided the fee is customary and reasonable for the type of project being proposed.

II. LENDER ISSUES

Administration of the rehabilitation (construction) stage: DE lenders approved for Section 203(k) are authorized to permit staff other than its underwriters to sign draw requests and change orders. This delegation of authority for properly managing the inspection and disbursement functions of the 203(k) Rehabilitation Escrow Account must be included in the lender's quality control plan.

Acceptance of DE staff consultants and inspectors: The increasing volume of Section 203(k) loans has required many lenders to use staff consultants and inspectors beyond the HUD Office jurisdiction in which they were originally approved. In order to facilitate expansion of the

program, lenders may use staff consultants and inspectors acceptable to any HUD Office without additional review by each office. The lender must notify the HUD Office that it will be doing the consulting/inspecting. HUD Offices will actively share any information that may be helpful in preparing cost estimates, and will retain the right to reject consultants or inspectors based on poor quality of work in that Office's jurisdiction.

Proposal for lenders to appoint authorized agents to underwrite 203(k) loans: We are in the process of drafting a proposed rule to permit any approved Non-supervised and Supervised Mortgagee to appoint an Authorized Agent(s) to process and/or underwrite FHA insured mortgages. If implemented, this will permit a lender with or without 203(k) experience to use another lender with 203(k) experience for processing and underwriting loans it originates.

Draw request administration and accounting of rehabilitation escrow funds: lenders with unconditional Section 203(k) approval do not need to send the construction documents (interim and final draw requests, extensions, change orders, final release notice and the complete and final accounting form) to the local HUD Office until the Final Release Notice has been issued. At completion, the lender must send all to the local HUD Office.

The 203(k) Maximum Mortgage Worksheet (HUD 92700) and the MCAW: The mortgage credit analysis worksheet (MCAW, form HUD-92900WS) does not lend itself to mortgage calculations for Section 203(k) loans. Form HUD-92700 is used to calculate the mortgage amount while the MCAW is used to qualify the borrower. Attachment 2 is provided to demonstrate those sections of the 203(k) maximum mortgage worksheet that are to be transferred to the MCAW.

III. UNDERWRITING ISSUES

Qualifying Ratios (investment properties): The calculation of qualifying ratios proceeds as described below:

- From the monthly net rental income of the subject property (gross rents minus the 25 percent reduction or local office's percentage reduction for vacancies and repairs), subtract the monthly payment (principal, interest, taxes, insurance). If this yields a positive number, add it to borrower's monthly gross income; if negative, consider it a recurring monthly obligation; then,
- Calculate the mortgage payment-to-income ratio ("top ratio") by dividing the borrower's current housing expense (principal residence) by the monthly gross income. (The monthly gross income will include any positive cash flow from the subject investment property.); and
- Calculate the total fixed payment-to-income ratio ("bottom ratio") by dividing the borrower's total monthly obligations, including any net loss from the subject investment property, by the borrower's total monthly gross income.

Mixed Use Properties: If a portion of a residence is being devoted to commercial purposes, the property value assigned shall be as if completed for residential use, not commercial use. The local office's residential appraisal fee schedule is to be used.

However, the income from the commercial space may be used to support the mortgage as long as it is being currently used as a commercial enterprise and there is a valid lease. This income is to be treated just as is housing unit rental described above.

Recently Acquired Properties (less than six months): If a borrower (owner-occupant or investor) purchases a property with cash within the previous six months, the original sales price may be used as the estimate of value in determining the maximum mortgage amount for a Section 203(k) loan. This will allow the borrower to replenish funds used at the time of purchase. The original purchase price must be documented with a copy of the HUD-1 Settlement Statement and sales agreement. Also see Title Chain Evidence in IV below for additional instructions.

Sales of HUD-owned properties: Since each local HUD office must adjust for local conditions in the marketing of real estate owned, there will always be differences among the local offices. However, to help bring about a degree of uniformity with those elements that can be standardized, we have adopted the following policies:

- Revised loan-to-value for investor purchase of HUD-owned properties: The minimum cash investment for investor purchases of HUD-owned properties using Section 203(k) financing is now uniformly set at 15 percent nationwide. Previously, the maximum percentage of financing on properties purchased from HUD and repaired under Section 203(k) varied from 85 percent to 75 percent. This revision will provide consistency on 203(k) investor downpayment requirements throughout all office jurisdictions.
- Closing costs on HUD-owned properties: Since HUD has contractually agreed to pay up to the amount specified in Line 5 of the Sales Contract towards the purchaser's closing/financing expenses, a listing of allowable items, or a price listing for those items, normally will not be provided by HUD. The buyer is permitted to use these funds for either financing costs or closing costs. The buyer should indicate how these funds will be used at the time of loan application. However, in the event a local HUD Office does elect to specify either the specific closing/financing items, or the maximum cost for such items for which HUD will pay, that HUD Office will advise the lender.
- Appraisals on HUD-owned Properties: Local offices have been instructed to provide lenders with a copy of the appraisal report and a list of any required repairs on HUD-owned properties. These appraisals may be used for up to one year from the date of the appraisal.
- Heat loss/Heat gain calculations: When a new heating or cooling system is proposed, heat loss/heat gain calculations will no longer be required. The determination of the furnace size and type requirements will be left to the buyer and contractor and will not be imposed by FHA.

- Additional Escrow Commitment procedures: All funds in the rehabilitation escrow account (contingency reserve, construction savings, unused mortgage payments and inspection fees) that remain unspent at the end of construction, will accrue to the escrow commitment account in lieu of being applied to the principal balance. If the assumption of the mortgage does not occur within 18 months, then the escrow commitment account will be applied to the mortgage balance.

Occupant owners attempting to sell their home may refinance the current mortgage with a 203(k) loan and make repairs and improvements prior to placing the home up for sale. If the purchaser of the rehabilitated property is a first-time homebuyer, that buyer can assume the property without a downpayment.

(If the home is sold to an immediate family member, the loan-to-value will be 85 percent.) Please note that unless the property being rehabilitated becomes unoccupiable during construction, mortgage payments will not be considered as a cost of rehabilitation and therefore will not be allowed in calculating the cost of rehabilitation.

When calculating the maximum mortgage amount for the escrow commitment procedure on the 203(k) Maximum Mortgage Worksheet (Attachment 4), please note a change on line E1 that requests the input of the "Assumptor's Estimated Closing Cost." This closing cost includes the allowable assumption fee, title and recording fees, cost of the credit report and attorney fees if applicable.

IV. LOAN QUALITY ASSURANCE REVISIONS.

Although most of our efforts with regard to Section 203(k) mortgages are designed to enhance the ability of lenders to process and close these mortgages, we are also aware that certain elements, primarily those associated with investors and identity-of-interest transactions may contribute to unacceptable risk. The following are actions designed to help FHA as well as the lender manage the risk inherent on Section 203(k) mortgages.

Partnerships: Only general partnerships will be acceptable in this program. All partners must sign as individuals on the note. All parties on the mortgage or deed of trust must also sign the mortgage note.

Bulk Sales: Borrowers must reveal bulk sales to both the lender and local HUD office. When a borrower purchases properties through a bulk sale of more than two properties (even if HUD is not the seller), each bulk sale must be reviewed by the DE underwriter to assure the proper distribution of the sales price for each property (bulk sale amount divided by the number of properties purchased). An as-is appraisal will be necessary to assure that the contract sales price is not greater than the value of the property. We do not consider it a prudent practice to allow staff appraisers to appraise the properties in bulk sale transactions, therefore all such transactions will be reviewed, after closing, by the local HUD Office.

Identity-of-interest: If there is an identity-of-interest between the buyer and the seller of the property, the parties involved (and/or their family members) cannot use any commission from the sale or listing of the property for the downpayment. In addition, the loan-to-value will be limited to 85 percent and an as-is appraisal of the property will be required. On purchases by a partnership, there must be an arms-length transaction between contractor and borrower to assure no conflict of interest.

Also, there is to be no identity-of-interest between the lender and the borrower on Section 203(k) mortgages. An exception may be made in those situations where a mortgage lender is rehabilitating a property from its real estate owned inventory for resale.

Chain of Title Evidence: The DE lender must obtain evidence of prior ownership when a property was sold in the last year. Prior ownership must be reviewed for undisclosed identity-of-interest transactions. The 203(k) mortgage must be based on the lowest sales price in the last year.

V. APPROVAL OF NON-PROFIT AGENCIES.

A non-profit agency, before it can be approved as an eligible mortgagor and obtain the same mortgage amount as available to owner occupants on Section 203(k) mortgages, must demonstrate its experience as a housing provider to HUD and meet all other requirements described in HUD Handbook 4155.1 REV-4, paragraphs 1- 5. (Otherwise, the non-profit is limited to 85 percent mortgages as any other investor.) It must also be able to provide satisfactory evidence that it has the financial capacity to purchase the properties.

Housing Provider Documentation Requirements. To obtain HUD approval, the non-profit agency must provide the local HUD office with the following:

- 1) complete articles of incorporation and by-laws of the entity;
- 2) corporate resolution delegating signature authority;
- 3) an outline of current and future housing objectives;
- 4) a marketing plan describing its methodology of renting the units or transferring properties to homeowners through credit qualifying assumptions or other means, if appropriate; and,
- 5) a detailed description of the last two years' experience as a housing provider.

If a non-profit is approved by a HUD Office as eligible to participate as a mortgagor based on its experience as a housing provider, this approval is acceptable nationwide. However, the non-profit must advise each local HUD Office of its intent to purchase properties within that jurisdiction and provide the local office with a copy of the acceptance letter as well as items 2, 3, and 4 above.

With regard to housing provider experience as well as "rehabilitation" experience, the local Office may include alternate community-based experience (housing counseling, etc.). HUD Offices may also allow neighborhood-based nonprofit organizations to rehabilitate one or two

properties at a time until they are able to obtain the two years' experience necessary to take on more units.

A non-profit using the escrow commitment procedure may exceed the 18-month time limit for assumptions if it is offering a lease-with-option-to-assume transaction. In this type of transaction, non-profits are allowed a period of 36 months to complete the assumption. We also strongly recommend that the non-profit provide pre-purchase counseling for the homebuyers, either in-house or from a qualified contractor.

Financial Capacity Documentation: Lenders must be capable of analyzing a non-profit's financial capacity. Since the application of qualifying ratios is rarely appropriate in this analysis, the lender must be able to otherwise conclude that the non-profit borrower will be able to support the mortgages for which it has applied. (The individual signing the loan application and other documents for the non-profit agency is not personally obligated on the loan.) In addition to the documents that must be provided to HUD to determine the non-profit agency's eligibility, the lender must obtain the following documents to determine credit worthiness:

- 1) copies of last two years' tax returns; and
- 2) year-end financial statements for most recent fiscal year and most recent 90-day year-to-date financial statement prepared by an accountant.
- 3) credit reports on all principals of the non-profit organization

Unless the local HUD Office, in consultation with the mortgage lender, has agreed that the non-profit has demonstrated its financial capacity through alternate qualifying methods, the following underwriting criteria must be used by the lender for each loan application:

The non-profit agency must provide the lender financial statements for the most recent two years' documenting unrestricted cash flows or unrestricted and unencumbered reserves, exclusive of rental income from the financed properties, to meet the greater of: (a) 10% (ten percent) of principal, interest, taxes, and insurance (PITI) payments due each month on all mortgages for a minimum of six months; or (b) total PITI payments for the single largest mortgage for a minimum of six months.

[As an example of the above, a non-profit agency is considering purchasing an inner-city property for lease to low- and moderate-income families. The estimated monthly PITI on the mortgage will be \$1000; the agency has four other rental properties each with mortgages of \$1000 per month. To qualify for FHA-insured financing, analysis would proceed as follows:

Sum of PITI of all properties, including the property being purchased: \$5000.

(a) $\$5,000 \times 10\% \times 6 \text{ months} = \$3,000$

(b) $\$1,000 \times 6 \text{ months} = \$6,000$

The non-profit agency would need to have an unrestricted cash flow of at least \$6,000 per month, or unobligated cash reserves of at least \$6,000.]

VI. ENERGY EFFICIENT MORTGAGE (EEM) PROGRAM AND SECTION 203(k).

Effective immediately, Section 203(k) loans are eligible under the Energy Efficient Mortgages program. Refer to Mortgagee Letter 93-13 (May 24, 1993), for instructions on the basic program requirements for calculating an EEM. Properties of up to four units are eligible for an EEM under Section 203(k).

Under the FHA EEM Program, a borrower can finance into the mortgage 100 percent of the cost of eligible energy efficient improvements, subject to certain dollar limitations, without an appraisal of the energy improvements and without further credit qualification of the borrower.

To be eligible for inclusion into the mortgage, the energy efficient improvements must be "cost effective," i.e., the total cost of the improvements (including maintenance costs) must be less than the total present value of the energy saved over the useful life of the improvements. The mortgage, subject to the specific underwriting criteria described in ML 93-13, may include the cost of the energy efficient improvements in addition to the usual mortgage amount permitted by regulations. The FHA maximum loan limit for the area may be exceeded by the cost of the eligible energy efficient improvements. However, the entire mortgage cannot exceed 110% of the value of the property.

The cost of the energy improvements and the estimate of the energy savings must be determined based upon a physical inspection of the property by a home energy rating system (HERS) or energy consultant. For a 203(k) loan, the entire cost of the HERS or the energy consultant can be included in the mortgage. On new construction (an addition or new building on an existing foundation), the energy improvements must be over and above those required for compliance with the current FHA energy conservation standards for new construction. The estimate of the energy savings in new construction must be based upon a comparison of plans and specification of the house with the additional energy saving improvements to those of the basic house which complies with the current FHA energy conservation standards. Presently, these standards are those of the 1992 CABO Model Energy Code (MEC).

The energy inspection of the property must be performed prior to completion of the work write-up and cost estimate to assure there is no duplication of work items in the mortgage. After the completion of the appraisal, the cost of the energy improvements are calculated by the lender to determine how much can be added to the mortgage amount.

Example:

The existing property sold for \$60,000. The borrowers wish to install \$2,000 worth of energy-efficient (EE) improvements that have a useful life of 7 years and will save \$35 in monthly utility costs. The borrowers' closing costs total \$1,200, including the \$250 charge for the HERS inspection report. The interest rate on the 203(k) mortgage is 8.00%. The cost of rehabilitation

estimated by the 203(k) consultant is \$20,000. The after-improved value of the property is \$90,000.

\$60,000	Sales price
20,000	Cost of rehab
+ 1,200	Closing costs
\$81,200	Mortgage Basis
x97/95%	Max. Loan-to-Value Ratio
\$77,600	Loan Amount

Please refer to Mortgagee Letter 93-13 for details.

\$2,000	Installed Cost of EE Improvements
7 Years	Expected Life of Improvements
\$35	Expected Monthly Savings
\$420	Expected Yearly Savings
5.206	Present Value Factor (8% Interest Rate @ 7 Years)
\$2,186	EE Premium (5.206PV x \$420 Annual Savings)

Since the present value of the energy savings over the expected life of the improvements (the EE premium) is greater than the installed cost of the improvements, the entire cost of the improvements may be added to the mortgage amount (as shown above):

\$77,600	Mortgage Amount from above
+ 2,000	Installed Cost of EE Items
\$79,600	Mortgage Amount with Installed EE Items

VII. CONDOMINIUMS.

The Department will now permit Section 203(k) mortgages to be used for individual units in condominium projects that have been approved by FHA or the Department of Veterans Affairs under the guidelines listed below.

The 203(k) program was not intended to be a project mortgage insurance program, as large scale development has considerably more risk than individual single family mortgage insurance. Therefore, condominium rehabilitation is subject to the following conditions:

1. Owner/occupant and qualified non-profit borrowers only; no investors;
2. Rehabilitation is limited only to the interior of the unit. Mortgage proceeds are not to be used for the rehabilitation of exteriors or other areas which are the responsibility of the condominium association, except for the installation of firewalls in the attic for the unit;
3. Only the lesser of five units per condominium association, or 25 percent of the total number of units, can be undergoing rehabilitation at any time;
4. The maximum mortgage amount cannot exceed 100 percent of after improved value.

After rehabilitation is complete, the individual buildings within the condominium must not contain more than four units. By law, Section 203(k) can only be used to rehabilitate units in one-to-four unit structures. However, this does not mean that the condominium project, as a whole, can only have four units or that all individual structures must be detached.

May 24, 1993

**OFFICE OF THE ASSISTANT SECRETARY
FOR HOUSING-FEDERAL HOUSING COMMISSIONER**

Mortgage Letter 93-13

TO: ALL APPROVED MORTGAGEES

SUBJECT: Single Family Loan Production-Energy Efficient Mortgage Pilot Program

In compliance with Section 513 of the Housing and Community Development Act of 1992 (Act), HUD is establishing an FHA Energy Efficient Mortgage (EEM) Pilot Program for existing properties located in the following states: Alaska, Arkansas, California, Vermont and Virginia. This Pilot Program is effective immediately

An EEM recognizes the energy savings of a home that has "cost effective" energy saving improvements that increase the energy efficiency of a home. Because the home is energy efficient, the family will save on utility costs and thereby can afford to devote more of its income to the monthly mortgage payment. Energy efficiency can include both energy saving and active and passive solar technologies.

Under the FHA EEM Pilot Program, a borrower can finance into the mortgage 100% of the cost of eligible energy efficient improvements, subject to certain dollar limitations, without an appraisal of the energy efficient improvements. To be eligible for inclusion into the mortgage, the energy efficient improvements must be "cost effective," i.e., the total cost of the improvements (including maintenance costs) must be less than the total present value of the energy saved over the useful life of the improvements. The mortgage includes the cost of the energy efficient improvements in addition to the usual mortgage amount permitted by Regulations.

The detailed program requirements and processing and underwriting procedures for the FHA EEM Pilot Program are set forth below.

I. BASIC PROGRAM REQUIREMENTS

- A. Only existing one and two unit properties located in the above mentioned States are eligible. New construction is not eligible, nor are three and four unit existing properties.
- B. The cost of any improvement to the property that will increase the property's energy efficiency and that is determined to be "cost effective" is eligible for financing into the mortgage and its cost may be added to the mortgage amount up to the greater of:

1. 5% of the property's value (not to exceed \$8,000) or,
2. \$4,000.

"Cost effective" means that the total cost of the improvements, including any maintenance costs, is less than the total present value of the energy saved over the useful life of the energy improvement. The FHA maximum loan limit for the area may be exceeded by the cost of the energy efficient improvements.

- C. The cost of the energy improvements (including maintenance costs) and the estimate of the energy savings must be determined based upon a physical inspection of the property by a home energy ratings system (HERS) or energy consultant.

The HERS or energy consultant must be an independent entity, not related, directly or indirectly, to the seller of the property or the prospective borrower. The contractor selected by the borrower to install the energy efficient improvements may not be related, directly or indirectly, to the HERS or energy consultant. The HERS or energy consultant may be:

1. a utility company or,
2. a local, state or Federal government agency or,
3. an entity approved by a local, state or Federal government agency specifically for the purpose of providing home energy ratings on residential properties or,
4. a non-profit organization experienced in conducting home energy ratings on residential properties.

- D. The home energy rating report prepared by the HERS or energy consultant must be a written report provided to the prospective borrower and lender and it must contain the following information:

1. Address of the property.
2. Name of the current owner(s) of the property.
3. Date of the property inspection.
4. Description of the energy features currently in the property. This must include, at a minimum, a description of the insulation R values in ceilings, walls and floors; infiltration levels and barriers (caulking, weather-stripping and sealing); a description of the windows (storm windows, double pane, triple pane etc.) and doors; and a description of the heating (including water heating) and cooling systems.
5. Description of the improvements recommended to improve the energy efficiency of the property.
6. Estimated costs of the energy improvements, their useful life and the costs of any maintenance over the useful life.
7. Present estimated annual utility costs before installation of the energy efficient improvements.
8. Estimated annual utility costs after installation of the energy efficient improvements.
9. Estimated annual savings in utility costs after installation of the energy efficient improvements.

10. 10. Printed name(s) and signature(s) of the person(s) that inspected the property and prepared the report and the date of preparation of the report.
11. The following certification, signed by the person(s) who inspected the property and prepared the report, must accompany the report:

"I certify, that to the best of my knowledge and belief, the information contained in this report is true and accurate and I understand that the information in this report may be used in connection with an application for an energy efficient mortgage to be insured by the Federal Housing Administration of the United States Department of Housing and Urban Development."

- E. A mortgage for the purchase or refinance (including rate reduction streamline refinance) of a property to be insured under Section 203(b), Section 221(d)(2) or Section 234(c) is eligible for this EEM Pilot Program. For streamline refinance transactions, however, lenders are reminded that the borrower's monthly payment for principal and interest for the refinance mortgage (which will include the cost for the energy efficient improvements) must be lower than the monthly principal and interest on the current mortgage.
- F. An escrow account may be established for no more than three months after loan closing to allow for installation of the energy efficient improvements. The escrow account may be administered by the lender, a utility company, a non-profit organization or a government agency. The escrow account must be insured and be established at a financial institution supervised by a Federal agency.

II. PROCESSING AND UNDERWRITING REQUIREMENTS

- A. The lender will first process the mortgage loan application and qualify the borrower using our standard underwriting requirements and qualifying ratios. If the borrower elects to have an EEM and add the cost of the energy efficient improvements to the mortgage, the lender must take the following additional steps:
 1. The lender must obtain a report prepared by a HERS or energy consultant showing the estimated costs of installing the energy efficient improvements (including any maintenance costs) and the estimated annual savings in utility costs that will result from the installation of the energy efficient improvements.
 2. Using the HERS or energy consultant's report, the lender must determine that the energy efficient improvements are "cost effective" by calculating the present cost of the energy improvements, including maintenance costs, if any, over the useful life of the improvements and the present value of the energy savings over the useful life of the energy improvements. If the energy efficient improvements meet the "cost effective" test, i.e. present cost of improvements is less than the present value of the energy savings, then the lender may add 100 percent of the cost of the energy efficient improvements (subject to the dollar limits in paragraph IB, above) to the otherwise allowable maximum mortgage amount. (See Attachment A to this letter for examples showing how to make

these calculations and Attachment B to this letter which is an EEM Worksheet that must be used to qualify the borrower for the mortgage before adding the energy efficient improvements and then to calculate the EEM amount. If the mortgage is an EEM, Attachment B must be attached to the Mortgage Credit Worksheet (Form HUD-92900WS) when the lender submits the case for insurance endorsement). No appraisal of the energy efficient improvements is necessary and the borrower need not meet any further credit standards. If the energy efficient improvements meet the "cost effective" test, then the full cost of the improvements can be added to the borrower's base loan amount without a determination of value and without further credit qualification.

3. The lender will calculate the upfront mortgage insurance premium on the full mortgage amount (which will include the cost of the energy improvements). Closing can then occur.
- B. HUD will insure the mortgage before the energy efficient improvements are installed, provided the lender establishes an escrow account and deposits to it the funds to pay for the energy efficient improvements. The escrow account shall be for a period of no more than 90 days. If the improvements are not installed with 90 days, the lender must apply the funds held in escrow to a prepayment of the principal balance of the mortgage. The escrow account may be established by the lender and administered by either the lender, a utility company, a non-profit organization or a government agency. However, the lender is responsible for assuring HUD that the escrow has been cleared. Lenders shall execute form HUD 92300, Mortgage Assurance of Completion, to indicate that the escrow for the energy efficient improvements has been established and the lender, subsequently, is responsible for notifying HUD that the improvements have been installed and that the escrow has been cleared. The installation of the improvements may be inspected by the lender, the HERS or a HUD fee inspector and the borrower may be charged an inspection fee in accordance with the local HUD Field Office fee schedule.
- C. The lender must include a copy of the home energy rating report performed by the HERS or energy consultant in the closing package when requesting insurance endorsement.
- D. When calculating the borrower's maximum mortgage amount, the lender may include as an eligible closing cost, up to \$200, the cost of the inspection report prepared by the HERS or energy consultant.

III. DISCLOSURE STATEMENT REQUIRED TO BE GIVEN TO ALLBORROWERS

The Act requires that all applicable borrowers receive a Disclosure Statement informing them of the FHA EEM program requirements and the benefits of an EEM. Therefore, the attached disclosure statement (Attachment C to this letter) must be signed and dated by all borrowers at the time of initial loan application who are either purchasing or refinancing with FHA mortgage insurance, an existing one or two unit property in the above five states. This Disclosure Statement must be given to all applicants effective for sales contracts (or initial loan applications

for refinance transactions) signed on or after July 1, 1993. A photocopy of this Disclosure Statement, signed by the borrowers, must be included in the case binder when the case is submitted to the Field Office for insurance endorsement.

If you have any questions concerning this Mortgage Letter, please contact the local HUD Field Offices located in the above-mentioned five states.

Very sincerely yours,

Nicolas P. Retsinas
Assistant Secretary for Housing - Federal Housing Commissioner

Attachments

Attachment A

EFFECT ON MORTGAGE AMOUNT OF ENERGY EFFICIENT IMPROVEMENTS

NOTE: All examples assume the property appraised (not including the energy efficient improvements) for an amount equal to or exceeding the sales price of the property. All loan amounts are prior to adding HUD's Upfront Mortgage Insurance Premium (UFMIP). Calculate maximum mortgage amounts (before adding the cost of energy efficient improvements) as presently required by applying maximum loan-to-value (LTV) ratios to the mortgage basis, as well as by applying the 97.75% (or 98.75 for properties at or below \$50,000) limitation to the appraised value excluding closing costs. The lower of the two amounts determines HUD's maximum insurable mortgage (up to the maximum dollar amount for the area) before adding the cost of the energy efficient improvements and UFMIP. Except as noted, no maintenance costs for the energy efficient improvements are expected.

Example 1.

The existing property sold for \$60,000. The borrowers wish to install \$2,000 worth of energy-efficient (EE) improvements that have a useful life of 7 years and will save \$35 in monthly utility costs. The borrowers, closing costs total \$1,200, including \$200 of the \$250 charge for the HERS inspection report. The interest rate on the mortgage is 8.00%

\$60,000	Sales Price	\$60,000	Ap. Value
<u>+ 1,200</u>	Closing Costs	<u>x97.75%</u>	Max. LTV
\$61,200	Mortgage Basis	\$58,650	Max Loan
<u>x97/95%</u>	Maximum Loan-to-Value Ratio		
\$58,640	Loan Amount (before UFMIP)		
\$2,000	Installed Cost of EE Improvements		
7 Years	Expected Life of Improvements		
\$35	Expected Monthly Savings		
\$420	Expected Yearly Savings		
5.206	Present Value Factor (8% Interest Rate @ 7 Years)		
\$2,186	EE Premium (5.206PV x \$420 Annual Savings)		

Since the present value of the energy savings over the expected life of the improvements (the EE premium) is greater than the installed cost of the improvements, the entire cost of the improvements may be added to the mortgage amount (as shown below):

\$58,640	Mortgage Amount from above
<u>+ 2,000</u>	Installed Cost of EE Items
\$60,640	Mortgage Amount with Installed EE Items

Example 2.

The existing property sold for \$60,000. The borrowers wish to install \$3,000 worth of energy-efficient (EE) improvements that have a useful life of 10 years and will save \$40 in monthly utility costs. The borrowers, closing costs total \$1,200, including \$200 of the \$250 charge for the HERS inspection report. The interest rate on the mortgage is 8.00%

\$60,000	Sales Price	\$60,000	Ap. Value
<u>+ 1,200</u>	Closing Costs	<u>x97.75%</u>	Max. LTV
\$61,200	Mortgage Basis	\$58,650	Max. Loan
<u>x97/95%</u>	Maximum Loan-to-Value Ratio		
\$58,640	Loan Amount (before UFMIP)		
\$3,000	Installed cost of EE Improvements		
10 Years	Expected Life of Improvements		
\$40	Expected Monthly Savings		
\$480	Expected Yearly Savings		
6.710	Present Value Factor (8% Interest Rate @ 10 Years)		
\$3,220	EE Premium (6.710pv x \$480 Annual Savings)		

Since the present value of the energy savings over the expected life of the improvements (the EE premium) is greater than the installed cost of the improvements, the entire cost of the improvements may be added to the mortgage amount (as shown below):

\$58,640	Mortgage Amount from above
<u>+ 3,000</u>	Installed cost of EE Items
\$61,640	Mortgage Amount with Installed EE Items

Example 3.

The existing property sold for \$60,000. The borrowers wish to install \$2,500 worth of energy-efficient (EE) improvements that have a useful life of 7 years and will save \$35 in monthly utility costs. The borrowers, closing costs total \$1,200, including \$200 of the \$250 charge for the HERS inspection report. The interest rate on the mortgage is 8.00%.

\$60,000	Sales Price	\$60,000	Ap. Value
+ 1,200	Closing Costs	<u>x97.75%</u>	Max. LTV
\$61,200	Mortgage Basis	\$58,650	Max. Loan
<u>x97/95%</u>	Maximum Loan-to-Value		
\$58,640	Loan Amount (before UFMIP)		
\$2,500	Installed Cost of EE Improvements		
7 Years	Expected Life of Improvements		
\$35	Expected Monthly Savings		
\$420	Expected Yearly Savings		
5.206	Present Value Factor (8% Interest Rate @ 7 Years)		
\$2,186	EE Premium (5.206PV x \$420 Annual Savings)		

Since the present value of the energy savings over the expected life of the improvements (the EE premium) DO NOT exceed the installed cost of the improvements, the cost of the improvements are not eligible to be added to the mortgage amount.

Example 4.

The existing property sold for \$60,000. The borrowers wish to install \$5,000 worth of energy-efficient (EE) improvements that have a useful life of 30 years and will save \$40 in monthly utility costs. The borrowers, closing costs total \$2,500, including \$200 of the \$250 charge for the HERS inspection report. The interest rate on the mortgage is 7.50%

\$60,000	Sales Price	\$60,000	Ap. Value
<u>+ 2,500</u>	Closing Costs	<u>x97.75%</u>	Max LTV
\$62,500	Mortgage Basis	*\$58,650	Max Loan
<u>x97/95%</u>	Maximum Loan-to-Value Ratio		
\$59,875	Loan Amount (before UFMIP)		

* Because of the 97.75% limitation applied to the appraised value excluding closing costs, the maximum insurable loan before UFMIP is \$58,650.

\$5,000	Installed Cost of EE Improvements
30 Years	Expected Life of Improvements
\$40	Expected Monthly Savings
\$480	Expected Yearly Savings
11.81	Present Value Factor (7.5% Interest @ 30 Years)
\$5,668	EE Premium (11.810PV x \$480 Annual Savings)

Since the present value of the energy savings over the expected life of the improvements (the EE premium) is greater than the installed cost of the improvements, \$4,000 of the improvements may be added to the mortgage amount (as shown below). Only \$4,000 of the improvements may be added to the mortgage because of the limit on the amount of EE premium that can be added to the mortgage. See paragraph IB of the Mortgagee Letter:

\$58,650	Mortgage Amount from above
<u>+ 4,000</u>	Installed Cost of EE Items
\$62,650	Mortgage Amount with Installed EE Items

Example 5.

The existing property sold for \$60,000. The borrowers wish to install \$3,000 worth of energy-efficient (EE) improvements that have a useful life of 10 years, has average maintenance costs of \$25 per year, and will save \$45 in monthly utility costs. The borrowers, closing costs total \$1,200, including \$200 of the \$250 charge for the HERS inspection report. The interest rate on the mortgage is 8.00%.

\$60,000	Sales Price	\$60,000	Ap. Value
<u>+ 1,200</u>	Costs	<u>x97.75%</u>	Max. LTV
\$61,200	Mortgage Basis	\$58,650	Max. Loan
<u>x97/95%</u>	Maximum Loan-to-Value Ratio		
\$58,640	Loan Amount (before UFMIP)		
\$3,000	Installed Cost of EE Improvements		
10 Years	Expected Life of Improvements		
\$45	Expected Monthly Savings		
\$515	Expected Yearly Savings (\$540-\$25 maintenance costs)		
6.710	Present Value Factor (8% Interest Rate @ 10 Years)		
\$3,456	EE Premium (6.710PV x \$515 Annual Savings)		

Since the present value of the energy savings (not of maintenance costs) over the expected life of the improvements (the EE premium) is greater than the installed cost of the improvements, the entire cost of the improvements may be added to the mortgage amount (as shown below):

\$58,640	Mortgage Amount from above
<u>+ 3,000</u>	Installed Cost of EE Items
\$61,640	Mortgage Amount with Installed EE Items

Example 6.

The maximum mortgage limit for the area is \$151,725. The existing property sold for \$155,000. The borrowers wish to install \$10,000 worth of energy-efficient (EE) improvements that have a useful life of 30 years and will save \$75 in monthly utility costs. The borrowers, closing costs total \$5,000, including \$200 of the \$500 charge for the HERS inspection report. The property was valued at \$155,000. The interest rate on the mortgage is 8.00%.

\$155,000	Sales Price	\$155,000	Ap. Value
+ 5,000	Closing Costs	<u>x97.75%</u>	Max LTV
\$160,000	Mortgage Basis	\$151,512	
<u>x97/95/90</u>	Maximum Loan-to-Value Ratio		
\$150,750	Loan Amount (before UFMIP)		
\$10,000	Installed Cost of EE Improvements		
30 Years	Expected Life of Improvements		
\$75	Expected Monthly Savings		
\$900	Expected Yearly Savings		
11.258	Present Value Factor (8% Interest Rate @ 30 Years)		
\$10,132	EE Premium (11.258PV x \$900 Annual Savings)		

Although the present value of the energy savings over the expected life of the improvements (the EE premium) is greater than the installed cost of the improvements, the amount that may be added to the mortgage amount is limited to the lowest of the cost of improvements, \$8,000 or 5% of the appraised value (as shown below):

\$150,750	Mortgage Amount from above
+ 7,750	Lowest of installed cost (\$10,000), \$8,000 limit, or 5% of appraised value of \$155 (\$7,750)
\$158000	Mortgage Amount with Installed EE items

Also note that the mortgage amount permitted exceeds the statutory limit for the area of \$151,725 because of the amount of the EE items.

Example 7.

The existing conventional loan is being refinanced to a HUD-insured mortgage. The borrower owes \$60,000 and wishes to install \$2,500 worth of energy-efficient (EE) improvements that have a useful life of 10 years and will save \$35 in monthly utility costs. The property was appraised for \$65,000 and the borrower's closing costs including discount points total \$2,500, including \$200 of the \$250 charge for the HERS inspection report. The interest rate on the mortgage is 8.00%

\$60,000	Unpaid Principal Balance	\$65,000	Ap. Value
<u>+ 2,500</u>	Closing Costs	<u>+ 2,500</u>	C. Costs
\$62,500	Maximum Mortgage	\$67,500	Mort Basis
<u>x97/95%</u>	Max LTV		
\$64,625	Loan Amount		
\$2,500	Installed Cost of EE Improvements		
10 Years	Expected Life of Improvements		
\$35	Expected Monthly Savings		
\$420	Expected Yearly Savings		
6.710	Present Value Factor (8% Interest Rate @ 10 Years)		
\$2,818	EE Premium (6.710PV x \$420 Annual Savings)		

Since the present value of the energy savings over the expected life of the improvements (the EE premium) is greater than the installed cost of the improvements, the entire cost of the improvements may be added to the mortgage amount (as shown below):

\$62,500	Mortgage Amount from above
+ 2,500	Installed Cost of EE items
\$65,000	Mortgage Amount with Installed EE Items

Example 8.

The existing property is being streamline refinanced without an appraisal from a 12% interest rate mortgage to a 8% interest rate. The borrower owes \$60,000 (of an original debt of \$61,500) and wishes to install \$2,500 worth of energy-efficient (EE) improvements that have a useful life of 10 years and will save \$35 in monthly utility costs.

\$60,000	Unpaid Principal Balance (Loan excluding MIP cannot exceed this amount; no closing costs may be financed.)
\$2,500	Installed Cost of EE Improvements
10 Years	Expected Life of Improvements
\$35	Expected Monthly Savings
\$420	Expected Yearly Savings
6.710	Present Value Factor (8% Interest Rate @ 10 Years)
\$2,818	EE Premium (6.710PV x \$420 Annual Savings)

Since the present value of the energy savings over the expected life of the improvements (the EE premium) is greater than the installed cost of the improvements, the entire cost of the improvements may be added to the mortgage amount (as shown below) provided that the principal and interest of the new mortgage with the energy efficient items added is less than the P&I of the mortgage being refinanced:

\$60,000	Mortgage Amount from above
<u>+ 2,500</u>	Installed Cost of EE Items
\$62,500	Mortgage Amount with Installed EE Items

Compare: P&I for \$61,500 @ 12% = \$633
 P&I for \$62,500 @ 8% = \$458

Since even with the inclusion of the energy efficient items into the new mortgage amount there is a reduction to the borrowers monthly principal and interest payment, the installed cost may be added to the insurable mortgage.

Attachment B

ENERGY EFFICIENT MORTGAGE WORKSHEET

STEP 1: QUALIFYING THE BORROWER

The borrower must be qualified for the mortgage amount before adding the cost of energy efficient improvements to the mortgage. To show that the borrower qualified for the mortgage amount, show the borrower qualifying ratios on the mortgage by completing the worksheet below.

- | | |
|--|-----------------|
| 1. Enter the amount from line 14g of the HUD 92900-WS | \$ _____ |
| 2. Estimated upfront MIP for amount on line 1, above. | \$ _____ |
| 3. Sum of line 1 and 2, above: | \$ _____ |
| 4. Monthly payments based on mortgage amount from line 3, above. | \$ _____ |
| a) Estimated PITI and monthly MIP | \$ _____ |
| b) Estimated PITI, monthly MIP, and recurring expenses (total fixed) | \$ _____ |
| 5. Qualifying ratios using mortgage amount before adding cost of energy efficient improvements | |
| a) Mortgage payment to income ratio | _____ . _____ % |
| b) Total fixed payment to income ratio | _____ . _____ % |

STEP 2: ADDING THE COST of ENERGY EFFICIENT ITEMS to THE MORTGAGE AMOUNT

If the borrower is an acceptable credit risk for the mortgage amount requested before adding the cost of the energy efficient items, complete the worksheet below to determine if the cost of the energy efficient improvements may be added to the mortgage amount.

- | | |
|---|-----------------|
| 1. Mortgage Interest Rate | _____ . _____ % |
| 2. Expected Useful Life (years) | _____ |
| 3. Present Value Factor (from chart) | _____ . _____ |
| 4. Expected Monthly Savings | \$ _____ |
| | x 12 |
| 5. Expected yearly savings | \$ _____ |
| a. Minus expected yearly maintenance | \$ _____ |
| b. =Net Yearly Savings | \$ _____ |
| 6. EE Premium (Net Yearly Savings x Present Value Factor) =
(Present Worth of Estimated Savings) | |
| Net YR Savings \$ _____ x _____ PV = \$ EE | \$ _____ |
| 7. Installed Cost | \$ _____ |
| Compare EE Premium to Installed Cost: | |
| 8. If EE Premium (line 6) is less than installed cost (line 7), the | |

energy efficient items may not be financed into the mortgage.

If EE Premium (from line 6) exceeds installed cost (line 7), answer the following questions to determine the amount that may be added to the mortgage amount:

Does installed cost (line 7) exceed \$4,000? Yes No

If NO, show installed cost (line 7) here and add to base mortgage amount. \$ _____

If YES (installed cost exceeds \$4,000), does installed cost exceed 5 percent of the appraised value of the property? Yes No

If NO, show the lesser of 8,000 or the installed cost (line 7) here and add to base mortgage amount. \$ _____

If YES (installed cost exceeds 5 percent of appraised value), show the lesser of \$8,000 or 5 percent of the appraised value here and add to the base mortgage amount. \$ _____

The amount calculated above is the maximum amount that may be added to the mortgage previously calculated on line 14g of the HUD-92900-WS, Mortgage Credit Analysis Worksheet. Line 6a, 6b, and 6c of the analysis worksheet will reflect the addition of the EE premium in the new mortgage amount. Be certain to identify in the "Remarks" section of the worksheet why the final mortgage exceeds the line 14g and also show the revised loan to value ratio and borrower qualifying ratios for the higher mortgage amount. A copy of this Attachment B must be attached to the worksheet. The upfront MIP must be calculated on the mortgage amount including the energy efficient improvements.

The following example shows a completed HUD 92900 Mortgage Credit Analysis Worksheet and an Attachment B for an EEM. In this case the property is valued at \$70,000 and the borrower wishes to install \$2,000 of energy efficient improvements that have a useful life of 10 years. The energy efficient improvements will save \$30 per month in utility costs, but the improvements will also have estimated yearly maintenance costs of \$60. The interest rate of the mortgage is 8% for 30 years.

Example

Attachment B
ENERGY EFFICIENT MORTGAGE WORKSHEET

STEP 1: QUALIFYING THE BORROWER

The borrower must be qualified for the mortgage amount before adding the cost of energy efficient improvements to the mortgage. To show that the borrower qualified for the mortgage amount, show the borrower qualifying ratios on the mortgage by completing the worksheet below.

1.	Enter the amount from line 14g of the HUD 92900-WS	\$ <u>67,000</u>
2.	Estimated upfront MIP for amount on line 1, above.	\$ <u>2,010</u>
3.	Sum of line 1 and 2, above:	\$ <u>69,010</u>
4.	Monthly payments based on mortgage amount from line 3, above.	
	a) Estimated PITI and monthly MIP	\$ <u>594</u>
	b) Estimated PITI, monthly MIP, and recurring expenses (total fixed)	\$ <u>700</u>
5.	Qualifying ratios using mortgage amount before adding cost of energy efficient improvements	
	a) Mortgage payment to income ratio	<u>28.2</u> %
	b) Total fixed payment to income ratio	<u>33.3</u> %

STEP 2: ADDING THE COST of ENERGY EFFICIENT ITEMS to THE MORTGAGE AMOUNT

If the borrower is an acceptable credit risk for the mortgage amount requested before adding the cost of the energy efficient items, complete the worksheet below to determine if the cost of the energy efficient improvements may be added to the mortgage amount.

1.	Mortgage Interest Rate	<u>8.0</u> %
2.	Expected Useful Life (years)	<u>10 Years</u>
3.	Present Value Factor (from chart)	<u>6.710</u>
4.	Expected Monthly Savings	\$ <u>30</u>
		x 12
5.	Expected yearly savings	\$ <u>360</u>
	a. Minus expected yearly maintenance	\$ <u>-60</u>
	b. = Net Yearly Savings	\$ <u>300</u>
6.	EE Premium (Net Yearly Savings x Present Value Factor) = (Present Worth of Estimated Savings)	
	Net YR Savings \$ <u>300</u> x <u>6.710</u> PV = \$ EE	\$ <u>2013</u>
7.	Installed Cost	\$ <u>2000</u>
	Compare EE Premium to Installed Cost:	
8.	If EE Premium (line 6) is less than installed cost (line 7), the energy efficient items may not be financed into the mortgage. If EE Premium (from line 6) exceeds installed cost (line 7), answer	

the following questions to determine the amount that may be added to the mortgage amount:

Does installed cost (line 7) exceed \$4,000? Yes No

If NO, show installed cost line 7) here and add to base mortgage amount. \$ 2000

If YES (installed cost exceeds \$4,000), does installed cost exceed 5 percent of the appraised value of the property? Yes No

If NO, show the lesser of 8,000 or the installed cost (line 7) here and add to base mortgage amount. \$ _____

If YES (installed cost exceeds 5 percent of appraised value), show the lesser of \$8,000 or 5 percent of the appraised value here and add to the base mortgage amount. \$ _____

The amount calculated above is the maximum amount that may be added to the mortgage previously calculated on line 14g of the HUD-92900-WS, Mortgage Credit Analysis Worksheet. Line 6a, 6b, and 6c of the analysis worksheet will reflect the addition of the EE premium in the new mortgage amount. Be certain to identify in the "Remarks" section of the worksheet why the final mortgage exceeds the line 14g and also show the revised loan to value ratio and borrower qualifying ratios for the higher mortgage amount. A copy of this Attachment B must be attached to the worksheet. The upfront MIP must be calculated on the mortgage amount including the energy efficient improvements.

Mortgage Credit
Analysis Worksheet

GRAPHICS MATERIAL IN ORIGINAL DOCUMENT OMITTED*
form HUD-92900-WS (10/92)
ref. handbook 4155.1

PRESENT VALUE FACTORS for ENERGY EFFICIENT MORTGAGES

INTEREST RATE	PRESENT VALUE FACTORS			
	7 YEARS	10 YEARS	15 YEARS	30 YEARS
4.00%	6.002	8.111	11.118	17.292
4.25%	5.947	8.011	10.927	16.779
4.50%	5.893	7.913	10.740	16.289
4.75%	5.839	7.816	10.557	15.820
5.00%	5.786	7.722	10.380	15.372
5.25%	5.734	7.629	10.206	14.944
5.50%	5.683	7.538	10.038	14.534
5.75%	5.632	7.448	9.873	14.141
6.00%	5.582	7.360	9.712	13.765
6.25%	5.533	7.274	9.556	13.404
6.50%	5.485	7.189	9.403	13.059
6.75%	5.437	7.105	9.253	12.727
7.00%	5.389	7.024	9.108	12.409
7.25%	5.343	6.943	8.966	12.104
7.50%	5.297	6.864	8.827	11.810
7.75%	5.251	6.786	8.692	11.529
8.00%	5.206	6.710	8.559	11.258
8.25%	5.162	6.635	8.430	10.997
8.50%	5.119	6.561	8.304	10.747
8.75%	5.075	6.489	8.181	10.506
9.00%	5.033	6.418	8.061	10.274
9.25%	4.991	6.348	7.943	10.050
9.50%	4.950	6.279	7.828	9.835
9.75%	4.909	6.211	7.716	9.627
10.00%	4.868	6.145	7.606	9.427
10.25%	4.829	6.079	7.499	9.234
10.50%	4.789	6.015	7.394	9.047
10.75%	4.751	5.951	7.291	8.868
11.00%	4.712	5.889	7.191	8.694
11.25%	4.674	5.828	7.093	8.526
11.50%	4.637	5.768	6.997	8.364
11.75%	4.600	5.709	6.903	8.207
12.00%	4.564	5.650	6.811	8.055
12.25%	4.528	5.593	6.721	7.908
12.50%	4.492	5.536	6.633	7.766
12.75%	4.457	5.481	6.547	7.629
13.00%	4.423	5.426	6.462	7.496
13.25%	4.388	5.372	6.380	7.367
13.50%	4.355	5.320	6.299	7.242
13.75%	4.321	5.267	6.220	7.120
14.00%	4.288	5.216	6.142	7.003
14.25%	4.256	5.166	6.066	6.889
14.50%	4.224	5.116	5.992	6.778
14.75%	4.192	5.067	5.919	6.670

PRESENT VALUE FACTORS for ENERGY EFFICIENT MORTGAGES

INTEREST	PRESENT VALUE FACTORS			
RATE	7 YEARS	10 YEARS	15 YEARS	30 YEARS
4.00%	6.002	8.111	11.118	17.292
4.25%	5.947	8.011	10.927	16.779
4.50%	5.893	7.913	10.740	16.289
4.75%	5.839	7.816	10.557	15.820
5.00%	5.786	7.722	10.380	15.372
5.25%	5.734	7.629	10.206	14.944
5.50%	5.683	7.538	10.038	14.534
5.75%	5.632	7.448	9.873	14.141
6.00%	5.582	7.360	9.712	13.765
6.25%	5.533	7.274	9.556	13.404
6.50%	5.485	7.189	9.403	13.059
6.75%	5.437	7.105	9.253	12.727
7.00%	5.389	7.024	9.108	12.409
7.25%	5.343	6.943	8.966	12.104
7.50%	5.297	6.864	8.827	11.810
7.75%	5.251	6.786	8.692	11.529
8.00%	5.206	6.710	8.559	11.258
8.25%	5.162	6.635	8.430	10.997
8.50%	5.119	6.561	8.304	10.747
8.75%	5.075	6.489	8.181	10.506
9.00%	5.033	6.418	8.061	10.274
9.25%	4.991	6.348	7.943	10.050
9.50%	4.950	6.279	7.828	9.835
9.75%	4.909	6.211	7.716	9.627
10.00%	4.868	6.145	7.606	9.427
10.25%	4.829	6.079	7.499	9.234
10.50%	4.789	6.015	7.394	9.047
10.75%	4.751	5.951	7.291	8.868
11.00%	4.712	5.889	7.191	8.694
11.25%	4.674	5.828	7.093	8.526
11.50%	4.637	5.768	6.997	8.364
11.75%	4.600	5.709	6.903	8.207
12.00%	4.564	5.650	6.811	8.055
12.25%	4.528	5.593	6.721	7.908
12.50%	4.492	5.536	6.633	7.766
12.75%	4.457	5.481	6.547	7.629
13.00%	4.423	5.426	6.462	7.496
13.25%	4.388	5.372	6.380	7.367
13.50%	4.355	5.320	6.299	7.242
13.75%	4.321	5.267	6.220	7.120
14.00%	4.288	5.216	6.142	7.003
14.25%	4.256	5.166	6.066	6.889
14.50%	4.224	5.116	5.992	6.778
14.75%	4.192	5.067	5.919	6.670

Attachment C
U.S. Department of Housing and Urban Development
ENERGY EFFICIENT MORTGAGE PILOT PROGRAM

Section 513 of the Housing and Community Development Act of 1992 requires the U.S. Department of Housing and Urban Development (HUD) through the Federal Housing Administration (FHA) to establish a pilot program to provide mortgage insurance for Energy Efficient Mortgages. The property you are purchasing or refinancing may be eligible for this pilot program. The law requires that you be informed of this program and that you acknowledge by signing this statement that you understand the benefits of the program.

What is an Energy Efficient Mortgage?

An Energy Efficient Mortgage, or EEM, recognizes the energy savings of a home. It allows the homebuyer (or homeowner if it is a refinance) to qualify for a larger mortgage to finance the construction or installation of improvements to a home that will increase the home's energy efficiency. Because the home will be more energy efficient after installation of the energy saving improvements, the family can devote more of its income to the mortgage payment.

How do I apply for an EEM?

When you apply for your mortgage loan, tell your lender that you are interested in an EEM. You or the lender must then have the home inspected and rated by a home energy rating organization. Many utility companies and other organizations perform these energy inspections and ratings. The home energy rating organization will determine the energy use of the home and recommend the improvements that may save energy. For example, the inspection may show that adding additional insulation, replacing an old furnace or other similar improvements will increase the energy efficiency of the home. If these improvements will save you more money than it costs to install them, then the costs of the improvements (up to certain dollar limits) may be financed into your mortgage.

Where can I get more information about an EEM?

Ask your real estate broker, mortgage lender, utility company or state energy office for more information about an EEM.

Borrower Signature

Date

Borrower Signature

Date

Fannie Mae Guidelines

The following pages contain copies of Fannie Mae documents that deal with Energy Efficiency Financing. The documents included are listed below:

Summary of the Fannie Mae EEM/EIM Pilot Program

Section 216 - Underwriting Mortgages Secured by Energy Efficient Properties

Section 221 - Energy Improvement Mortgages

Section 305 -Energy Efficient Properties

Section 305.01 - Development of Energy-Efficiency Rating

Fannie Mae Residential Energy Efficiency Improvement Loans

Summary of the Fannie Mae EEM/EIM Pilot Program

Under this Pilot Program, the energy efficiency of a home will be rated by an Accredited Home Energy Rating System Provider (HERS). Upon completion of the HERS rating the property may be eligible for:

- the Energy Improvement Mortgage (EIM) - which provides financing for acquisition or refinance plus additional funds to make certain recommended energy saving improvements to the property; and/or

The borrower may be eligible for:

- the Energy Efficient Mortgage (EEM) - which considers energy savings in qualifying the borrower for property that is already energy efficient as determined by the HERS rating.
- when an existing, energy-inefficient property is improved to a certain level of energy efficiency, both components (EIM and EEM) can be utilized.

The HERS

The Energy Policy Act of 1992 required DOE to develop uniform, voluntary guidelines for rating the energy efficiency of homes. In response, the Home Energy Rating Systems Council, working under contract to DOE, developed a set of national guidelines (the HERS Guidelines) for home energy ratings and rating organizations. The purpose of the HERS Guidelines is to provide an accurate measure of a home's energy efficiency using a methodology that is uniform throughout the United States.

Under this Pilot EEM/EIM, Fannie Mae requires that, as evidence of the level of energy efficiency, an energy rating be performed on each home, in accordance with the HERS Guidelines.

The EEM

The EEM allows the lender to qualify using higher debt-to-income ratios because the property is:

- determined to be "energy efficient" in its present condition by the HERS rating; or
- will be improved to a level of efficiency determined to be "energy efficient" by the HERS rating (utilizing the EIM financing).

In the event the property is determined to be "energy efficient" in its present condition, the lender may use an automatic 2 percent increase in the maximum qualifying ratios.

When the property is being improved to an "energy efficient" level using the EIM, the lender may choose between:

- the 2 percent automatic increase in qualifying ratios; or

- increase the borrowers ratios by the dollar amount of the “estimated monthly energy savings” (shown on the HERS rating) because of the energy improvements being made under the EIM.

In order to qualify as “energy efficient” the property must achieve a minimum HERS rating equivalent to or greater than:

- The rating achieved by a home that meets the requirements established by the council of American Building Officials Model Energy Code of 1992 (CABO-MEC 92).

The EIM

The EIM allows the lender to include the cost of making energy improvements to the property in the mortgage loan. To be eligible:

- the improvements being made must increase the HERS rating by at least 10 points (on a 100 point scale) .

If an existing ;property does meet the threshold for an EEM (92 CABO-MEC), the lender may still use the estimated monthly energy savings in qualifying the borrower for the mortgage as long as the 10 point rating increase is achieved by the improvements. For example, if the borrower will reduce the estimated monthly utility expense by \$50 and increase the HERS rating by at least 10 points, the lender may increase the borrower’s maximum monthly housing payment (PITI) at 28 percent by \$50.

EIM/EEM

The combination of the EIM and the EEM allows the lender to include the cost of making energy improvements to the property in the mortgage and to qualify the borrower using either the 2 percent higher debt-to-income ratios or the amount of the “estimated monthly energy savings” (shown on the HERS rating), whichever is more beneficial (but the 2 percent increase and the estimated energy savings may not be combined).

Documentation Requirements

The following documentation will be required as part of the loan file for all mortgages under the EEM/EIM Pilot Program:

- 1) HERS Rating Certificate (from the Accredited HERS) to include this information:
 - the existing rating
 - existing energy features in the property
 - recommended improvements
 - an estimate of the utility savings
 - the present value of the estimated savings
 - the mortgage rate used for the present value calculation
 - the estimated rating after improvements are considered.

The HERS Rating Certificate is the documentation for determining the energy efficiency of the improvements made to the property.

- 2) Energy Appraisal Addendum (Fannie Mae EEM/EIM Pilot Form) including:
 - the Energy Efficiency Value Increment
 - the total estimated value by the appraiser
 - the special limiting conditions for the appraiser

Appraisers will use this form as an attachment to the URAR to determine the Final Value Estimate, and lenders will use this form as the basis for calculating the LTV.

Guidelines for the Pilot

Mortgages delivered to Fannie Mae under the EEM/EIM Pilot Program must comply with existing Fannie Mae guidelines except as modified below:

Qualifying ratios

- 1) For an EEM, if the final energy efficiency rating equals or exceed the thresholds established for the Pilot Program:
 - the borrower may be qualified using a maximum monthly housing expense ratio of 30 percent and/or a maximum monthly debt ratio of 38 percent without additional Justification by the Lender; or,

The rating certificate must be included in the mortgage file and must show at least the following rating;

- the rating point equivalent to that achieved by a property that meets the minimum requirements of the CABO-MEC 92.
- 2) For an EIM, if the energy efficiency rating of the home will be improved by at least 10 points as a result of the upgrades made:

- the borrower may be qualified at the housing expense ratio and total debt ratio which results from adding the expected monthly savings (shown on the rating certificate) to the mortgage PITI at 28 percent. The ratio resulting from this calculation will be considered supported with no further explanation or justification by the Lender.

The rating certificate must be included in the mortgage file and must show at least a 10 point increase in the property's rating as a result of the energy improvements made.

Financing energy improvements

- 1) The threshold for an EIM that allows improvements to be financed is:
 - the energy rating must increase 10 points (on a 100 point scale) as a result of the improvements;
- 2) If the energy rating certificate in the mortgage file indicates that the property exceeds the threshold for an EIM, the cost of the energy improvements may be included in the mortgage to the extent supported by value:
 - For a purchase mortgage, this means that the purchase price is considered to be the contract price for the property plus the installed cost of the improvements. The LTV must be based on the lower of purchase price or appraised value.
 - For a refinance mortgage, this means that the LTV must be based on the appraised value (including the improvements).
- 3) The appraised value of the property must be based on the market value indicated by the sales comparison approach plus the Energy Efficiency Value Increment, which is the lower of:
 - the installed cost of the energy improvements, or
 - the present value of the expected energy savings (shown on the rating certificate).

The appraiser must attach the completed Energy Appraisal Addendum, (Fannie Mae EEM/EIM Pilot) showing the calculation; to the appraisal. The Lender is responsible for underwriting the appraisal and concluding that it supports the appraiser's assumptions data, analyses, rationale and conclusions concerning the market value of the property. The Energy Efficiency Value increment will be provided by the Accredited HERS and will be added to Market Value by the appraiser to achieve Total Estimated Value. During the pilot, Fannie Mae acknowledges that energy efficiency property comparables do not exist and will accept the Total Estimated Value described above as the appraised value.
- 4) If the energy improvements are not completed before loan delivery, the Seller may escrow for the completion of the energy improvements under the following terms:
 - the improvements must be satisfactorily completed within 120 days after closing;
 - an escrow account in the borrower's name must be established and disbursements from that account must be controlled by the Lender;

- the amount in the escrow account must equal 110 percent of the amount required to complete the improvements, unless the contractor offers a guaranteed—fixed price” contract, in which case the escrow account may equal 100 percent of the contract price;
 - not more than 10 percent of the original principal balance may be disbursed from the mortgage into the escrow account. Any additional funds must come from borrower funds, including the 10 percent contingency required (if applicable) for the escrow, (i.e., the contingency may never come from the mortgage); and
 - upon completion of the improvements, the lender must obtain and keep in the mortgage file a satisfactory certificate” of Completion (Fannie Mae EEM/EIM Pilot Form 1) and a final energy rating certificate. If the installed cost of the improvements is less than the amount escrowed, the excess must be applied to reduce the principal balance of the loan. Any contingency funds left in the escrow account (that were originally funded by the borrower) may be disbursed back to the borrower.
- 5) The borrower may not include the cost of the energy rating in the mortgage or improvement costs. The lender may pay both the cost of the rating and the escrow contingency for the borrower from premium pricing. However, if the lender provides the contingency, any funds left at the close of escrow must be applied to reduce the principal balance of the loan (and not be refunded to the borrower).

Required documentation

In addition to all the documentation normally required to be in the file for the mortgage sold to Fannie Mae:

- 1) For an EEM mortgage, the mortgage file must contain:
 - the HERS Energy Efficiency Rating Form which must show an efficiency rating above the 92 CABO-MEC threshold a list of the energy features in the property, and an estimate of utility savings.
- 2) For an EIM, the mortgage file must contain:
 - the HERS Energy Efficiency Rating Form which must show an efficiency rating improvement of at least, 10 points, a list of the energy features in the property, the weighted life of the energy features, the mortgage interest rate used for the PV calculation, the present value factor, the installed cost of the improvements, the expected monthly savings, and the present value of the savings; and
 - the Appraisal Addendum to the URAR (Fannie Mae EEM/EIM Pilot Form 1) completed by the appraiser to show the market value, the energy efficiency increment to value and total value. This form must be signed by the appraiser and attached to the appraisal report.
 - the Certification of Completion (Fannie Mae EEM/EIM Pilot Form 2) to be signed by the certified energy rater, the homeowner, and the contractor in order to release escrow funds.

3) For a combination EIM/EEM mortgage, all of the above documents are required.

Delivery

In addition to the mortgage data normally required at delivery, the Lender must include the Special Feature Code 124 designation when delivering a loan under the EEM/EIM Pilot Program. when completing the appraised value, the Lender must use the total estimate of the value shown on the appraisal addendum.

Manual Part Chapter Section	S VI 2 216.00	Fannie Mae Selling Part VI Underwriting 2 - Principal Residences/Second Homes 216 - Underwriting Mortgages Secured by Energy Efficient Properties	Pg 665 - 665 12/31/94
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Section 216 - Underwriting Mortgages Secured by Energy Efficient Properties

Lenders should give special underwriting consideration to borrowers who are purchasing properties that are energy efficient or that will be undergoing energy-related improvements. Higher monthly housing expense - and obligations-to-income ratios may be justified because the borrower will realize savings in energy costs.

The lender should consider the energy savings of a property, along with other property and borrower characteristics, when it decides whether increased qualifying ratios are justified. For energy-efficient properties, we allow increases of up to 2% in both the monthly housing expense-to-income ratio and the total obligations-to-income ratio. The energy-efficiency of the property must be rated as “high” to justify the use of these increased ratios.

(also see Part VII, Section 305)

A lender must retain all energy-related documents that it uses to make the underwriting decision. For each mortgage loan, the lender must attach to the Uniform Residential Appraisal Report (Form 1004) either an Energy Addendum (Form 1004A), rating form from Energy Rated Homes of America, evidence that the dwelling was built in accordance with an energy conservation program that meets the National Association of Home Builders’ Thermal Performance Guidelines, or the builder’s certification that the dwelling was constructed in a manner that meets or exceeds the standards established by the 1989 Council of American Building Officials’ Model Energy Code. This documentation must be sent to us if we perform an underwriting performance review of the mortgage.

Manual		Fannie Mae	Pg 567 - 568
Part	S V	Selling Part V Mortgage Eligibility	10/31/94
Chapter	2	2 - Conventional Mortgages	
Section	221.00	221 - Energy Improvement Mortgages	

Section 221 - Energy Improvement Mortgages

We will purchase or securitize first mortgages that finance the purchase and energy improvement of one- to four-family properties. Properties may be older residences that will be retrofitted or new homes that will be upgraded with energy-saving features.

Lenders may include the actual cost of the improvements in the purchase price of the property—up to a amount that equals 15% of the property’s value. The value of the property will be defined as the lower of

- the actual purchase price plus the cost of the energy improvements, or
- the “as completed” value of the property.

The lender may deliver the mortgage before the energy improvements are completed. At closing, the lender must disburse funds into an escrow account to cover the cost of the improvements. The lender must manage the escrow account and take steps to ensure that all improvements are completed within 120 day of loan closing. Once all improvements have been completed, the lender must inspect the property. The loan file should be documented to indicate that all improvements have been completed as required. If the work is not completed within the allowable time period, the lender must either

- repurchase the mortgage (or, it is in an MBS pool, substitute a qualified mortgage for it);
- close the account and apply the remaining funds to the principal balance of the mortgage if the work has not started; or
- take action to complete the energy retrofitting or upgrading within 60 days if the work has started. If the improvements are not completed by the end of the 60-day extension period, the lender must repurchase the mortgage (or substitute a qualified mortgage for it, if the mortgage is in the MSB pool).

The energy savings can be considered in underwriting the borrower’s credit and financial ability.

Manual		Fannie Mae	Pg 731 - 732
Part	S VII	Selling Part VII Property and A	12/31/94
Chapter	3	3 - Special Appraisal Consideration	
Section	305.00	305 - Energy Efficient Properties	

Section 305 -Energy Efficient Properties

When a lender is giving special underwriting consideration to a borrower because the property that secures his or her mortgage is energy efficient, the lender can use either of two methods to qualify the dwelling as energy-efficient: development of an energy-efficiency rating by the appraiser or an energy consultant or reliance on the construction of the dwelling having been in compliance with qualifying energy conservation programs or the builder's certification that it has complied with the Council of American Building Officials Model Energy Code.

Regardless of the method used for qualifying a dwelling as "energy efficient," the appraiser must consider the reaction of the market to energy-efficient improvements (or proposed alterations) and reflect their contributory value in the "sales comparison analysis" based on the appraiser's analysis of comparable properties. However, if adequate comparables are not available, the appraiser may develop an analysis of the present worth of the estimated savings in utility costs. To do this, the appraiser may use a procedure that is similar to the one used in Part II of the Energy Addendum (Form 1004A).

Manual Part Chapter Section	S VII 3 305.01	Fannie Mae Selling Part VII Property and A 3 - Special Appraisal Considerations 305 - Development of Energy Efficiency Rating	Pg 732 - 733 12/31/94
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Section 305.01 - Development of Energy-Efficiency Rating

An energy-efficiency rating developed by the property appraiser or an energy consultant can be used for determining the energy-efficiency for both new and existing homes.

The appraiser must include an evaluation of the energy-efficient characteristics and an overall rating--of high, adequate, or low—for the energy efficiency of the dwelling in the appraisal report. Appraisers or consultants may use either an Energy Addendum (Form 1004A) or a rating form from the Energy Rated Homes of America to develop the rating. Part I of Form 1004A, which consists a checklist and the rating, is used to justify the use of increased ratios in the underwriting process, while Part II may be used to determine the contribution of energy-efficient items to the value of the property (if adequate comparable market data is not available). A rating of “high” is required to justify consideration in the credit underwriting process. Generally, a dwelling must include features from each of the following three major categories to receive a “high” rating.

A. Insulation and infiltration. We require insulation with adequate “R” values or infiltration barriers in the form of the following:

- Insulation in ceilings, roofs, or attic floors that are over conditioned spaces, in exterior walls under floors that cover unheated areas, around slabs, around heating or cooling ducts, or pipes that run through unconditioned spaces, around the sill area, and around the water heater;
- Caulking or weather-stripping around window and door areas and at the sill area;
- Special fireplace devices of features such as combustion-air and flue dampers, and a fire door;
- Sealing of the sole plate and penetrations of the exterior shell; and
- Dampers for exhaust fans.

B. Windows and doors. We require the following features:

- Double- or triple-pane windows, or storm windows; and
- Storm doors, or insulated doors.

C. Heating and cooling systems. We require the following types of heating and cooling systems:

- New efficient heating and cooling systems, or appropriate modifications to an existing system:
 - New efficient systems include such things as a high efficiency oil or gas furnace with an Annual Fuel Utilization Efficiency (AFUE) rating of 80% or higher, a high efficiency heat pump with a Seasonal Energy Efficiency Ratio (SEER) measure of 9.0 or greater and a Heating Seasonal Performance Factor (HSPF) of 7.0 or greater, and a central air conditioner with a SEER rating of 9.0 or greater
 - System modifications include such things as a flame retention oil burner, vent dampers for oil and gas furnaces, pilotless ignition for gas furnaces, and a secondary condensing heat exchanger for gas and oil furnaces;
- Zoned heating and/or air conditioning;
- Automatic set-back thermostats; or
- Solar equipment or design.



Product Highlights

Residential Energy Efficiency Improvement Loans

May 1996

Fannie Mae is partnering with utility companies to make low interest rate, unsecured consumer loans available to utility customers for the purpose of installing residential energy efficiency improvements. This residential loan product was developed by Fannie Mae link the housing finance industry with efforts to improve residential energy efficiency.

Fannie Mae is a congressionally chartered, shareholder-owned company, and is the nation's largest source of home mortgage funds. In March 1994, Fannie Mae launched our Trillion Dollar Commitment by pledging to provide \$1 trillion in targeted housing finance by the end of the decade. As part of this initiative, Fannie Mae is working with utility companies to assist their customers by providing a low-cost source of funds that allows homeowners to finance energy-efficiency improvements.

Benefits to utility customers

- Provides an unsecured financing option
- Allows a quick approval process
- Provides a below-market rate compared to other unsecured consumer loans
- Allows for home improvements while reducing energy-related costs
- Increases the value of the home.

Benefits to utility companies

- Provides a product for a competitive retail environment
- Lowers the cost of demand-side management by replacing rebates with loans
- Provides significant customer service
- Shifts customer focus from equipment cost to monthly payments for higher efficiency heating and cooling equipment
- Promotes a "whole house" or bundled approach to efficiency upgrades
- Builds a stronger trade ally and dealer network
- Allows flexibility and control in providing financial services

Loan details

Term: Up to ten years

Amount: Up to \$15,000

Rate: Set periodically based upon market conditions (but fixed for the term of the loan)

Security: Unsecured (unless the utility company prefers a secured loan)

Eligible Customers

One- to four-family homeowners in the utility company's service territory are eligible.

Processing loans

Loans may be originated and serviced by the participating utility company, or by a Fannie Mae-approved third party on behalf of the utility company.

Underwriting guidelines

Loans are underwritten according to acceptable credit scoring criteria. Loan approval consists of approving the customer's loan application, reviewing the utility company's payment history, and determining an appropriate credit score.

Risk sharing

Fannie Mae will accept the first 1.5 percent of the loan losses for an additional fee, or the utility company can assume all the risk of loan losses.

Examples of energy saving upgrades

Upgrades include the replacement of central heating and cooling systems, water heating systems, replacement windows and doors, insulation, ductwork upgrades, lighting and other energy efficiency improvements approved by the utility company and Fannie Mae.

Loan delivery

Utility companies will enter into specifically negotiated, annual renewable contracts with Fannie Mae.

Further Information

For further information or current rate quote call:

David Carey at (202) 752-3821

or

Ian Clark at (202) 752-2832

Freddie Mac Guidelines

The following pages contain copies of Freddie Mac documents that deal with Energy Efficiency Financing. The documents included are listed below:

July 1989 Freddie Mac Letter on Energy-efficient mortgage program and revised energy addendum

Form 70A Energy Addendum

Chapter 23.8 - Energy Conservation Rehab

Chapter 37.7 - Monthly Debt Payment-to-Income ratio

Chapter 44.7 - Addenda Required For Certain Appraisal Reports

Chapter 44.11 - Energy Efficient Properties

**Freddie
Mac**

July 21, 1989

Subject: Energy-efficient mortgage program and
revised energy addendum

To: All Freddie Mac Sellers and Servicers

Due to the recent renewed interest in energy-efficient housing, we want to direct your attention to our energy-efficient mortgage (EEM) program for home and second mortgages. We believe our program is the model of EEM programs for the secondary market. It has been designed to give credit to your borrowers for the energy conservation improvements made to their properties by allowing them to use the savings in their utility costs to offset higher mortgage payments.

As a part of our recent review of our EEM program, we improved our Form 70A, Energy Addendum, which you may use when underwriting energy-efficient properties. This form was revised with the help of energy industry experts to be more user friendly and to allow greater participation in our EEM program. Fannie Mae has also adopted this revised version (6/89) for use with its EEM program.

Please familiarize yourself with our revised Form 70A by reviewing the highlights below and reacquaint yourself with our entire EEM program by reviewing our policies as summarized in the attached exhibit A.

Revised energy addendum

The instructions throughout Form A have been improved to give helpful examples and to incorporate the following key changes:

- discounting the limit on the value of the contribution made by the energy-saving items: (The form previously indicated a limit of 5 percent of the value of the subject property.) Now, your underwriter has more flexibility but must continue to exercise prudent judgment in determining whether the energy-efficient items represent an over improvement to the property based on the appraisal. (Funds set aside to complete retrofit improvements, however, are still limited to 10 percent of the mortgage amount.)
- allowing either an energy consultant or an appraiser to complete part 1 of the form: (Formerly, an appraiser was required to complete the entire form. Note, however, that only an appraiser may complete part 2.) An energy consultant may be a qualified representative of the local utility, the builder, the lender, a heating and cooling contracting firm, or a private home energy efficiency consultant.
- clarifying that a “high” energy efficiency rating is required to justify the additional consideration we allow in the credit underwriting process.

The instructions also indicate more clearly when to use each of Form 70A's two parts:

- Part 1 is used to rate the energy efficiency of a property and provides an estimate of the dollar amount of expected monthly energy savings.
- Part 2 is used to estimate the value of the energy-efficient improvements when adequate comparable market data are not available.

We encourage you to use the revised Form 70A (6/89) immediately. Use of this version of Form 70A will be required after August 31, 1989. Enclosed with this letter are two camera-ready copies for your convenience in printing your own supply.

Although our EEM program was developed to enable you to assist your borrowers in qualifying for a higher mortgage amount, your underwriters must continue to consider all relevant factors, including a borrower's credit worthiness. If you have any questions about our revised energy addendum or our EEM program, please call your Freddie Mac regional office.

Cordially,

D. James Croft
Executive Vice President
Risk and Property Management

Exhibit A

FREDDIE MAC'S ENERGY-EFFICIENT MORTGAGE PROGRAM (for home and second mortgages)

Freddie Mac has specific policies to promote the use and installation of energy-efficient improvements in the properties securing the home and second mortgages it purchases. These policies are detailed in the Sellers' and Servicers' Guide and involve:

- defining the purchase price or value when retrofitting existing properties with improvements to conserve energy (section 1306)
- defining what an energy-efficient property is and what items to consider when appraising the energy efficiency of a property (section 2214)
- allowing a higher housing expense-to-income ratio for mortgages secured by energy-efficient properties (section 2308)

Energy-efficient improvements must be completed before delivering the mortgage to Freddie Mac, with one exception. Energy retrofit items (such as those listed in section 2214) may be completed within 120 days after the delivery date.

(a) Defining purchase price or value when retrofitting existing properties with energy-efficient items. Section 1306, "Energy Conservation and Rehabs," outlines our policies on how to include the value of anticipated energy-efficient items in a property's purchase price or appraised value and how to manage funds for incomplete retrofits. (This section also applies to nonenergy-related issues such as rehabilitation, renovation, and refurbishing older housing.)

If the energy improvements are to be included in the mortgage amount, the total purchase price is considered the sales price of the property plus the actual cost of the anticipated energy improvements. The loan-to-value (LTV) ratio is still calculated based on the lower of this total purchase price or the appraised value (including the energy items).

To include energy items in mortgage amount,
calculate total purchase price as follows:

$$\begin{array}{rcl} \text{Total} & & \text{Sales} & & \text{Actual cost of} \\ \text{purchase} & = & \text{price of} & + & \text{anticipated} \\ \text{price} & & \text{property} & & \text{energy items} \\ & & & & \text{total purchase price} \\ & & & / & \\ \text{LTV ratio is based on lessor of} & & & & \text{or} \\ & & & \backslash & \\ & & & & \text{appraised value (including energy} \\ & & & & \text{items)} \end{array}$$

Exhibit A

If the energy improvements are to be included in the mortgage amount, the estimate of market value for the property must include the energy-efficient items, whether existing or being retrofit to the property. The appraiser must analyze the sales comparables to determine if they have energy-efficient items comparable to the subject property. The energy-efficient items of each comparable sale should be identified. An adjustment must be made to reflect the market-perceived differences between the subject property and each of the comparables.

The appraisal report (Form 70, 72, or 465) must include, in the market estimate, the energy improvements as if completed. If the market area lacks sufficient data to develop an estimated value including the energy improvements, part 2 of Form 70A, Energy Addendum, should be used to value them. The appraiser should insert the value of the energy-efficient items in the subject column of the “sales Comparison Analysis” on Form 70 or “Market Data Analysis” on Form 72 or 465.

The following additional requirements apply to a mortgage secured by a property having an incomplete energy retrofit:

- The energy improvements must be completed within 120 days of the delivery date.
- The funds needed to complete the improvements may not exceed 10 percent of mortgage amount. These funds must be placed in an escrow account (in the borrower’s name) with disbursements controlled by the Seller or Servicer. The “Date of Note” on Form 11 or 13SF, Mortgage Submission Voucher, must be the date of mortgage funding, not the anticipated final disbursement of escrow funds.
- An escrow agreement describing the work to be completed must be in the mortgage file. This agreement must provide that if default occurs or if the improvements are not completed within 120 days, the Seller or Servicer must either:
 - close the escrow account and apply the remaining funds to curtail the mortgage if work on the improvements has not begun, or
 - complete the improvements. Upon completion of the energy improvements, the property must be inspected; and the Seller or Servicer must maintain Form 442, Satisfactory Completion Certificate, in the mortgage file.

(b) Defining energy-efficient property and conservation items.

Section 2214, “Energy-Efficient Properties,” defines these properties as follows: An energy-efficient property uses cost-effective design, materials, equipment, and site orientation to conserve nonrenewable fuels. Implicit in this definition are proper design and installation of materials and equipment consistent with the climate in the area. (This definition could also include the use of alternative equipment to generate or supplement an individual property’s power needs, such as a windmill or solar panel that generates electricity.)

Exhibit A

Items normally considered when evaluating the energy efficiency of a home include:

- insulation with adequate R-values installed in ceilings, exterior walls, and roofs; around hot water heaters; under floors that cover unheated areas; and surrounding ducts and pipes in unconditioned areas
- caulking and weatherstripping
- double- or triple-pane windows
- window shading or landscaping for solar control
- storm fittings
- automatic setback thermostats
- heating, cooling, and lighting systems and appliances designed to be energy efficient
- solar systems for water heating, space heating, and cooling
- wood-fired heating systems
- building designs that minimize energy use, such as smaller window areas and earth sheltering

The appraiser should list all the energy-efficient items in the description of improvements and note their contributory value in the “Sales Comparison Analysis” on Form 70 or “Market Data Analysis” on Form 72 or 465.

A rating of “high” energy efficiency is required to justify additional consideration in the credit underwriting process. Energy efficiency ratings may be established by completing one of the following documents:

- part 1 of Form 70A (A property should have features from each of the three listed categories (insulation, windows, and doors, heating and cooling) to receive an overall “high” energy efficiency rating.)
- a report based on an established home energy rating system (HERS) sponsored by a local utility, home builder association, or a state or local government (The HERS report should also show a “high” rating and feature items for the categories of insulation, windows and doors, and heating and cooling.)

(c) Calculating credit ratios. Section 2308, “Monthly Debt Payment-to-Income Ratios,” allows higher housing expense-to-income ratios for energy-efficient properties. (See the last paragraph of section 2308.)

In the normal underwriting process, the seller should consider the impact of utility charges have on the borrower’s ability to meet the monthly housing expense and properly maintain the property. We allow higher qualifying ratios on energy-efficient properties because generally these properties achieve reductions in utility expenses and allow the homeowner to devote a higher percentage of income to the housing expense. The increase in housing expense should not exceed the total estimated monthly savings of the energy-efficient items shown on part 1 of Form 70A or on the HERS report. If higher ratios are used, the Seller must document in the mortgage file calculation and sources used to justify the ratios.

Energy Addendum Sheet

23.8**Energy conservation and rehabs**

A Mortgage may finance the purchase of a property that is to be retrofitted with energy conservation components, rehabilitated, renovated or refurbished. If the Seller considers the cost of such improvements in setting the terms of the Mortgage, the purchase price may be considered the price paid for the Mortgaged Premises by the purchaser plus the actual cost of improvements. The appraisal must state the estimated market value after completion of the improvements and be supported by a satisfactory completion certificate. (See Form 442 for suggested format.)

(a) Energy retrofit not completed before Mortgage delivery

Unless Escrows are established in accordance with the requirements of Section 22.17 or for energy retrofit in accordance with the requirements of this Section 23.8(a), all improvements must be completed before delivery of the Mortgage to Freddie Mac. If the improvements are energy conservation components retrofitted to the Mortgaged Premises and the retrofit has not been completed before delivery of the Mortgage to Freddie Mac, the Seller/Servicer may disburse the funds required for the completion of the improvements into an Escrow account (meeting the requirements of Section 23.8(b)) in the Borrower's name and then deliver the Mortgage to Freddie Mac.

(b) Seller Warranties

By delivering a Mortgage secured by a property that has an incomplete energy retrofit (as described above), the Seller warrants that the following requirements are met:

1. The improvements will be satisfactorily completed within 120 days after the Delivery Date.
2. An Escrow account in the Borrower's name has been established and disbursements from that account are controlled by the Seller or the Servicer.
3. The amount of the Escrow account is not less than the funds required to complete the improvements and not more than 10 percent of the original amount of the Mortgage.
4. An Escrow agreement exists in the Seller's file which includes a description of the energy work to be completed and a provision stating that, in the event of default or if the improvements are not completed within 120 days after the Deliver Date, the Seller or the Servicer must either close the Escrow account and apply the remaining balance in the Escrow account to curtail the

Mortgage if the work on the improvements has not begun, or complete the improvements if the work has begun.

5. Upon completion of the improvements, the Seller or the Servicer will have the property inspected and will retain in the Mortgage file a Form 442 certifying completion of the improvements.

When completing Form 11 or Form 13SF, the Seller should enter the date of Mortgage funding for “Date of Note,” not the anticipated date of final disbursement of Escrow Funds.

37.7

Monthly debt payment-to-income ratio
(continued)

Note:

If all or any portion of the proceeds of the Mortgage are being used to pay off or pay down existing debts in order to qualify for the Mortgage, the Seller must document such payoff in the Mortgage file. Canceled checks, paid receipts and/or a copy of the HUD-1 or other closing statement may be used to document the repayment.

As a guideline, the monthly debt payment should not be greater than 33 percent to 36 percent of the Borrower's stable monthly income.

A higher monthly payment ratio may be appropriate in some cases. Examples of conditions that could justify a higher ratio are:

1. An energy efficient property that reduces energy costs (See the paragraph at the end of this section.)
2. The demonstrated ability of the Borrower to devote a greater portion of income to basic needs, such as housing expense
3. The demonstrated ability of the Borrower to maintain a good credit history, accumulate savings and maintain a debt-free position
4. A large down payment on the purchase of the property
5. The Borrower's probability for increased earnings based on education, job training or time employed or practiced in a profession
6. The Borrower's net worth being substantial enough to evidence an ability to repay the Mortgage regardless of income
7. Rent paid by extended family members living in the house (may not be considered as stable monthly income but may justify slightly higher monthly payment ratios)
8. The existence of verified income that is not included within the definition of "stable monthly income" in Section 37.8 when there is an expectation that future expenses will be lower (such as child-support income that is scheduled to cease in one year when a child becomes an adult. In this case, the expectation would be that either future household expenses will be lower or that additional income will be provided by the new adult.)
9. The demonstrated ability of the Borrower to carry a higher debt level and maintain a good credit history

If these or any other conditions are considered, the Seller must prepare and retain in the Mortgage file a written explanation supporting its

decision to exceed either ratio guideline set forth in Sections 37.6 and 37.7. For example, in order to demonstrate the Borrower's ability to devote a greater portion of income to housing expenses, the Seller may explain a higher housing expense ratio by noting that the Borrower's previous housing expense was 33 percent of gross monthly income and the file documentation evidences that.

- The Borrower made timely payments at that level for at least one year
- The Borrower's present gross monthly income is at least equal to that received during the past year
- The Borrower has not incurred any other significant debts within the past year (see also Section 46.9)

Note:

If the property is energy-efficient or contains energy-efficient items (see Section 44.11), higher income ratios may be appropriate. In its underwriting analysis, the Seller should consider the impact utility charges have on the Borrower's ability to meet the monthly housing expense and properly maintain the property. An energy-efficient property results in lower utility charges, allowing the owner to apply more income to housing expense. In such circumstances, higher ratios could be appropriate. If higher ratios are used, the Seller must provide in the Mortgage file the calculation and source documentation used to derive the dollar offset allowed due to lower utility charges. Source documentation may be:

- The appraisal report indicating the energy efficiency of the property, or
- Form 70A, Energy Addendum (Residential Appraisal Report), or
- An established home energy rating system (HERS)

44.7

Addenda required for certain appraisal reports (continued)

CABO
MEC
Form 70A
HERS

(a) **Energy addendum for energy-efficient properties**

At the Seller's option, the following may be used to identify, rate and evaluate the subject property's energy-efficient features:

- Evidence of compliance with the Council of American Building Officials (CABO) 1992 Model Energy Code (MEC), or
- Form 70A, Energy Addendum (Residential Appraisal Report) (Exhibit 70A), or
- A report from an established Home Energy Rating System (HERS) sponsored by a local utility, home builder association, or a state or local government

See Section 44.11 for guidance on energy-efficient properties.

44.11**Energy-efficient properties**

An energy-efficient property uses cost-effective design, construction, materials, equipment and site orientation to conserve energy, consistent with the climate of the area in which the property is located. Items that contribute to the energy efficiency of a property include, but are not limited to, the following:

1. Insulation with adequate R-values installed in ceilings, exterior walls and roofs; around hot water heaters; under floors that cover unheated areas; and surrounding ducts and pipes that are not air-conditioned
2. Caulking and weatherstripping
3. Double- or triple-paned windows
4. Window shading or landscaping for solar control
5. Storm doors and windows
6. Automatic setback thermostats
7. Heating, cooling and lighting systems and appliances designed to be energy-efficient
8. Solar systems for water heating, space heating and cooling
9. Wood-fired heating systems (using outside combustion air)
10. Building designs that minimize energy use, such as reduced window areas and earth sheltering

The appraisal report must list the energy-efficient items in the subject property and note their contribution to the value for the Mortgage to receive the special underwriting consideration allowed under Section 37.7. (See Section 44.7(a) for addendum requirements.)

EEM Contact List

The following are the key contacts for Iowa lenders planning to establish an Energy Efficiency Financing program:

Key Iowa Contacts

Energy Rated Homes of Iowa

Claude Papesh, Director
1001 South 18th Street
Marshalltown, IA 50158
Phone: 515-752-7162
515-752-7162 fax: 515-752-9724
claude_papesh@central.mica.midiaca.org
<http://www.iamu.org/erhi/>

MidAmerican Energy Company

Dan Moeller
Energy Efficiency Analyst
One River Center Place
106 East Second Street
Davenport, IA 52801
319-333-8841 fax: 319-333-8838
dlmoeller@midamerican.com
<http://www.midamerican.com>

IES Utilities

Dave Rogers, Marketing Programs Manager
P.O. Box 351
Cedar Rapids, IA 52406
319-398-8186 fax: 319-398-7633
800-822-4348
dave.rogers@ies-energy.com
<http://www.ies-energy.com>

Iowa Association of Municipal Utilities

Colin Hansen, Director of Technical Services
6900 NE 14th Street, Suite 27
Ankeny, IA 50021
515-289-1999 fax: 515-289-2499
colin@iamu.org
<http://www.iamu.org>

Iowa Association of Rural Electric Cooperatives

Kent Lehs
Gary Pfann
8525 Douglas Avenue, Suite 48
Urbandale, Iowa 50322
800-798-7037

Energy Bureau**Iowa Department of Natural Resources**

Jennifer Nelson
Wallace State Office Building
Des Moines, IA 50319
515-281-4262
<http://www.state.ia.us/government/dnr/organiza/egd/eb.htm>

Fannie Mae**Iowa Project Office**

Joe O'Hern, Director
699 Walnut, Suite 1375
Des Moines, Iowa 50309
515-244-9873

Key National Lending Groups**Fannie Mae**

3900 Wisconsin Avenue, NW
Washington, DC 20016-2899
800-732-6643
<http://www.fanmiemae.com>

Freddie Mac

8200 Jones Branch Drive
McLean, Virginia 22102
800-903-2000
<http://www.freddiemac.com>

U.S. Department of Housing and Urban Development

Office of Insured Single Family Housing
451 Seventh Street, SW
Washington, DC 20410
703-234-8117
<http://www.hud.gov>

U.S. Department of Veterans' Affairs

810 Vermont Avenue, NW
Washington, DC 20420
800-827-1000
<http://www.va.gov>

Other Energy Contacts

Residential Energy Services Network

Steve Baden, Executive Director
12350 Industry Way #208
Anchorage, AK 99508
phone: (907) 345-1930
fax: (907) 345-0540
email: resnet@corecom.net
<http://www.natresnet.org>

U.S. Environmental Protection Agency

501 3rd Street, NW, 4th Floor
Washington, DC 20001
888-782-7937
<http://www.epa.gov>

U.S Department of Energy

Office of Building Technologies
1000 Independence Avenue, SW
Washington, DC 20585
800-363-3732 (Energy Efficiency and Renewable Energy Clearinghouse)
<http://www.eren.doe.gov>

Energy Raters in Iowa

Mark Bergmeier

111 Walnut
LaPorte, IA 50651
Phone: (319) 342-3222

Steven Carroll

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Glossary Of Energy Efficiency Financing Terms

Air Change - The replacement of a quantity of air in a space within a given period of time, typically expressed air changes per hour. If a building has one air change per hour, this is equivalent to all of the air in the building being replaced in a one-hour period.

Air Conditioner - A. assembly of equipment for air treatment consisting of a means for ventilation, air circulation, air cleaning, and heat transfer (either heating or cooling). The unit usually consists of an evaporator or cooling coil, and an electrically driven compressor and condenser combination.

Appliance Efficiency Standards - Appliance efficiency standards establish the performance requirements for appliances. These standards apply to refrigerators, freezers, room air conditioners, central air conditioners, gas heaters, water heaters, plumbing fittings, fluorescent lamp ballasts and luminaires, and ignition devices for gas cooking appliances, and gas pool heaters. New national appliance standards are in place for some of these appliances and will become effective for others at a future date.

Appraisal - A report made by a qualified person setting forth an opinion or an estimate of value. The term also refers to the process by which this is obtained. In conventional mortgages and in the HUD-FHA Direct Endorsement Program, the lender receives a copy of the complete report, showing the basis for the appraiser's estimate. In VA cases and in HUD applications processed by HUD, the lender receives only a statement of the estimate of value, without any detailed supporting data.

Audit - (1) Analysis of a specific building's consumption and potential to conserve utility-supplied energy; (2) an energy inspection typically associated with a utility RCS (Residential Conservation Service) audits which were mandated by Congress for larger utilities to provide until July 31, 1990.

Basic Qualifying Ratio - The maximum generally acceptable ratio for a mortgage agency, e.g., for Fannie Mae and Freddie Mac, it is presently 28/36. This ratio is often adjusted upward or sometimes downward for compensating factors such as the borrower's credit worthiness.

British Thermal Unit (Btu) - A unit used to measure quantity of heat defined as the quantity of energy necessary to raise the temperature of 1 lb. of water 1° Fahrenheit.

Building Code - The local regulations that control design, construction, and materials used in construction. Building codes are usually based on health and safety standards.

Building Envelope - The assembly of exterior partitions of a building that enclose conditioned spaces, through which energy may be transferred to or from the exterior, unconditioned spaces, or the ground.

Building Inspector - An employee of local or state government building department whose responsibilities reviewing building plans and/or inspecting building sites to determine whether or not they meet existing health, safety, and/or energy codes.

CABO-MEC - Council of American Building Officials - Model Energy Code. A nationally recognized standard for minimum levels of energy efficiency in residential buildings (three stories or less) for insulation, windows, heating and cooling equipment, air infiltration, etc. All homes seeking FHA or VA loans must comply with the 1992 edition of this energy code. The Model Energy Code (1989, 1992, 1993, or 1995 edition) is also enforced in many state and local jurisdictions as part of their building code.

Certificate of Reasonable Value (CRV) - VA Fom26-1343, HUD Form 92800-5. A document issued by the VA establishing a maximum value and loan amount for a mortgage to be guaranteed by the VA. The CRV will also be accepted by HUD-FHA to establish the appraised value of the property for a mortgage to be insured by HUD-FHA.

Certification Programs - A program typically operated by utilities, home builders' organizations, or not-for-profit organizations. Energy efficiency standards are developed using local area demographics, construction practices, and area climatic conditions. They usually include thermal envelope efficiency criteria and space conditioning efficiency criteria. Certification programs generally rely on a specified inspection/verification process to ensure a rating consistency. Homes either pass or fail the inspection for energy efficiency.

Compensating Factors - Any underwriting consideration that would justify the use of higher debt-to-income qualifying ratios. Examples are large down payment, excellent credit history, or a demonstrated ability to accumulate savings.

Condenser - A heat exchanger in which the refrigerant, compressed to a hot gas, is condensed to liquid by rejecting heat.

Conditioned area (or space) - That portion of the building that is heated and/or cooled.

Cost Effective - Producing the most economical outcome for consumers.

Demand-Side Management (DSM) - Utility programs designed to control energy consumption on the customer's side of the meter. Such programs include conservation/energy efficiency, load management, and load building.

Dual-Paned (double-glazed) - Two panes of window glass or other transparent material.

Efficiency - The ratio of the useful energy delivered by a dynamic system (such as machine, engine, or motor) to the energy supplied to it over the same period or cycle of operation. The ratio is usually determined under specific test conditions.

Energy - The capacity for doing work. Forms of energy include thermal, mechanical, electrical, and chemical. Energy may be transformed from one form into another.

Energy-Efficiency Measures - Items that reduce a home's consumption of utility-supplied energy, including devices such as insulation, low-emissivity windows, and renewable energy technologies such as, passive solar design and solar domestic hot water systems.

Energy-Efficiency Rating - A certification of a home's energy efficiency or a relative indication of its energy efficiency on a graduated scale.

Energy Efficient Mortgages (EEMs) - When a homeowner or home buyer applies for a home loan, at the time of purchase or refinance, he or she can roll the cost of needed energy improvements into the mortgage, amortizing the cost of the improvements over the life of the mortgage, based on the expected savings.

Energy Efficient Mortgage Program - The energy improvement programs of the VA, FHA, Fannie Mae, Freddie Mac, and the Farmers Home Administration.. These are national programs that are available to all home buyer and homeowners at the time of purchase or refinance.

Energy Label - Label or sticker stating the energy efficiency rating level of the home.

Energy Rating - A designation of the relative efficiency of a property. In a larger sense, the rating would also include a prioritized energy improvement recommendation, estimates of energy and dollar savings, and documentation of efficiency and savings for the loan file if completed in conjunction with energy-efficient mortgages.

Energy-Saving Construction or Improvement Features - Features that contribute to lowering of energy use in a residence. They include, but are not limited to the following: insulation, e.g. wall, ceiling, floor, slab, crawl, basement, window, door, etc.; air infiltration reduction, e.g., gaskets, caulking, weather-stripping, controlled mechanical ventilation, etc.; heating and cooling equipment, e.g., setback thermostats and high efficiency furnace, air conditioner, water heater, and fireplace; duct loss reduction; glazing, e.g., amount of glazing, R-value, solar fraction, solar orientation; and passive and active solar features.

Energy-Saving Measure - Any device, equipment, material, process, construction method, system, structure, or combination thereof that will result in a reduction of energy usage when compared with conventional energy-related practice in the area of the project.

Exfiltration. - Air flow outward through a wall, building envelope, window, etc.

Fannie Mae - Term commonly used in referring to the Federal National Mortgage Association.

Farmers Home Administration (FmHA) - (now known as the Rural Economic and Community Development) A government agency within the Department of Agriculture that operates under the Consolidated Farm and Rural Development Act of 1921 and Title V of the Housing Act of 1949. This agency provides financing to farmers and other qualified borrowers who are unable to obtain loans elsewhere.

Federal Home Loan Mortgage Corporation. (FHLMC) - A quasi-government agency that purchases conventional mortgages in the secondary mortgage market from insured depository institutions and HUD-approved mortgage bankers. It sells mortgage participation certificates (PCs) secured by pools of conventional mortgage loans. Popularly known as Freddie Mac.

Federal Housing Administration (FHA) -A division of the Department of Housing and Urban Development. It sets standards for construction and underwriting. FHA neither lends money, plans, nor constructs housing.

Federal National Mortgage Association (FNMA) - A congressionally chartered corporation with private stockholders that purchases residential mortgages insured by **FHA** or guaranteed by VA, as well as conventional home mortgages. Popularly known as Fannie Mae.

Freddie Mac - Term commonly used in referring to the Federal Home Loan Mortgage Corporation.

Fuel Neutral - Rating system that factors in heating and cooling equipment efficiency without favoring one energy type or technology.

Glazing - A covering of transparent or translucent material (typically glass or plastic) used for admitting light. Glazing retards heat losses from radiation and convection.

Heat Gain - An increase in the amount of heat contained in a space, resulting from direct solar radiation, heat flow through walls, windows, of, and other building surfaces, and the heat given off by people, lights, equipment, ad other internal sources.

Heat Loss. - A decrease in the amount of heat contained in a space, resulting from heat flow through walls, windows, and other building surfaces and form exfiltration of warm air.

Heat pump - An air-conditioning unit capable of heating by refrigeration, transferring heat from one (often cooler) medium to other (often warmer) medium, and that may or may not include a capability for cooling.

Heating, Ventilating, and Air Conditioning System (HVAC) - A system that provides heating, ventilating, and/or cooling within or associated with a building.

Home Energy Rating System(s) (HERS) - HERS measure and rate on a scale the relative energy efficiency of any house, regardless of age, efficiency, or fuel use. The rating is based on the efficiency of the thermal envelope and the heating, ventilating, ad air conditioning (HVAC) system and is obtained by on-site inspection and calculations. HERS calculations include estimates of annual energy performance and costs and recommendations for cost-effective energy-efficiency improvements.

HERS Characteristics - (1) Designed to rate, on a scale, the relative energy efficiency of any house -- new and existing, efficient and inefficient; (2) provides a rating based on efficiency of the thermal envelope, space heating and cooling efficiency, and water heating efficiency; (3)

estimates annual costs; (4) recommends improvement measures; (5) is fuel neutral; (6) requires on-site inspections and quality control; (7) typically, is state sponsored (or approved) and third-party delivered; (8) has goal of providing voluntary, market-driven incentives to encourage increased efficiency; and (9) provides documentation that a house meets or exceeds a minimum standard for efficiency designated at a point on the scale.

Home Energy Rater - The person trained and possibly certified to inspect a residence to collect all information needed to complete a home energy rating.

Housing and Urban Development, Department of (HUD) - The Department of Housing and Urban Development was established by the Housing and Urban Development Act of 1965 to supersede the Housing and Home Finance Agency and give Cabinet status to the administration of the nation's housing and urban development programs. It is responsible for the implementation and administration of government housing and urban development, low rent public housing, mortgage insurance for residential mortgages (FHA), equal opportunity in housing, energy-efficient mortgages, and research and technology.

Indoor Air Quality - Indoor environmental quality of a site.

Infiltration - The uncontrolled inward leakage of air through cracks and gaps in the building envelope, especially around windows and doors.

Life Cycle Cost - Amount of money necessary to own, operate, and maintain a building over its useful life.

Load Management Program - Programs that have the effect of reducing electric peak demands or shifting electric demand from the hours of peak demand to non-peak time periods.

Passive Solar Technologies - Technologies that combine architecture to benefit from solar radiation incidence on buildings for heating, cooling, and lighting, with good conservation techniques for the building envelope and energy-efficient equipment and controls. Passive solar technologies are typically sunspaces, direct gain systems, and thermal storage walls.

PITI - Principal, interest, taxes, and insurance.

PITI+E - A borrower qualification method that incorporates energy efficiency in the debt-to-income ratios by adding the energy operating cost for the candidate house to other elements of the housing expenses.

Positive Cash Flow - A situation in which the energy cost savings from an energy-efficiency improvement exceeds the payment for the improvement in a given time period.

Prescriptive Standard - An energy-efficiency standard that specifies the energy-efficiency features that must be included in a building.

Qualifying Ratio - Percentage ratios that compare the borrowers' anticipated monthly fixed housing expense and total monthly obligations to the borrowers' stable monthly gross income for the purpose of evaluating the likelihood of meeting expenses.

Radiant Barrier - A device, designed to reduce or stop the flow of radiant energy.

Rating Tool - A procedure for calculating total annual energy consumption and costs of a home and for signing a rating that establishes how the efficiency of a given home compares to the efficiency of all other homes.

R-Value - A unit of thermal resistance used for comparing insulating values of different materials. The higher the R-Value of a material, the greater its insulating properties and the slower the heat flows through it.

Scaled HERS - A system that uses a scale of energy efficiency designed to rank any given home against other homes in the area. Non-scaled HERS, often called certification or prescriptive programs, use one or more benchmarks of energy efficiency instead of a continuous scale. Some HERS combine both-using a scale to rate the home and some designation or label linked to a few specific thresholds on the scale.

Secondary Mortgage Market - A system whereby lenders and investors buy existing mortgage or mortgage-backed securities and in doing so provide greater availability of funds for additional mortgage lending by banks, mortgage bankers, and savings and loan associations.

Site Energy - The energy consumed at a building location or other end-use site.

Source Energy - All the energy used in delivering energy to a site, including power generation, transmission, and distribution losses, to perform a specific function such as space conditioning, fighting, or water heating.

Star Rating Approach - Rating system in which stars are given to reflect energy efficiency of a home. For example, a rating of five stars on a scale of one to five stars represents the best rating possible.

Stretched Mortgages - Enhanced qualification ratios.

Submetering - Breaking down the utility metering of a building to determine the proportionate energy use of specific building systems and appliances.

Thermal Envelope - The building's exterior shell - walls, foundation, floors, ceiling, windows, doors, and roof.

Thermostat, Setback - A device containing a clock mechanism, which can automatically change the inside temperature maintained by the heating, ventilating and air conditioning (HVAC) system according to a preset schedule. The heating or cooling requirements can be reduced when a building is occupied or when occupants are asleep.

Unconditioned Space - A space that is neither directly nor indirectly conditioned space, which can be isolated from conditioned space by partitions and/or closeable doors.

Utility Audit - A formal review of a house's energy use conducted by a utility company representative, with recommendations for energy-efficiency measures, such as weather-stripping, caulking, and isolation.

U-value (coefficient of heat transmission) - The rate of heat loss, in British thermal units per hour, through a square foot of a surface (wall, roof, door, or other building surface) when the difference between the air temperature on either side is 1° Fahrenheit. The U-value is the reciprocal of the R-Value.

Veterans Affairs (VA) - An independent agency of the federal government created in 1930. The Serviceman's Readjustment Act of 1944 authorized the agency to administer a variety of benefit programs designed to facilitate the adjustment of returning veterans to civilian life. The VA home loan guaranty program is designed to encourage lenders to offer long-term, low-downpayment mortgages to eligible veterans by guaranteeing the lender against loss.

Water Heater - An appliance for supplying hot water for purposes other than space heating or pool heating.

Weatherization - Retrofitting a house's envelope with basic energy efficiency measures, such as weather-stripping, caulking, and insulation.

Whole-House Fan - A system capable of cooling a house by exhausting a large volume of warm interior air when the outside air is cool.

Zone - (1) In the context of a heating, ventilating, and air-conditioning (HVAC) system: a space or group of spaces served by an HVAC system or portion of an HVAC system controlled by a single thermostat or other control device; (2) A space or group of spaces within a building with sufficiently similar comfort conditioning requirements so that comfort conditions can be maintained throughout by a single control device.

Glossary Source: *Going National with HERS and EEMs: Issues and Impacts*, March 1992, National Renewable Energy Laboratory, Golden, CO., NREL, 7P-26-261-4706.

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