A RESNET Climate Policy Proposal

Introducing Rationality into the Home Financing Process

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Executive Summary

A new formula that accounts for energy efficiency in assessing housing financing will bring rationality to the housing market.

In the U.S., residential and commercial buildings are responsible for the greatest share of carbon production. No national climate policy can be effective unless it addresses reducing energy consumption and carbon production in homes.

The good news is that improving home energy performance is a very cost-effective way of reducing carbon and providing long term cost savings to the homeowner. The domestic housing market has demonstrated the power of this.

In order to reduce energy consumption and reduce carbon emissions in homes, HUD should issue guidance that directs mortgage underwriters to consider energy efficiency measures included in the home that will lower operating expenses for purposes of calculating mortgage qualification, home value and qualifying interest rate.

The benefits of such action would be:

- Rationalizing of the mortgage market where energy costs are considered as a cost of housing.
- Boosting the construction and purchase of energy efficient homes.
- Making energy efficient homes more affordable to families.

Currently, there is no method for consideration of home energy performance in the mortgage underwriting practices. The widely used mortgage underwriting model has ignored energy (and cost) saving features in homes. This lack of transparency creates obstacles for homeowners with moderate to middle incomes to finance energy efficiency retrofits, which would save them significant amounts of money over the long term. It also prevents new home builders from investing in energy efficient features because they might price-out homebuyers, even though the total cost of ownership would in fact go **down**. This policy gap could be addressed by using the Administrative Procedures Act or otherwise encouraged by the private sector itself.

Adopting a new formula for calculating mortgage qualification will bring rationality and a greater flexibility as to how mortgages are calculated in the U.S. housing market.

Introducing RESNET and HERS

The Residential Energy Services Network (RESNET) is an independent, nonprofit membership corporation that is recognized as the national standards-making body for home energy efficiency rating and certification systems in the United States.

Founded in 1995 by representatives of the national mortgage industry; the National Association of State Energy Officials; and Energy Rated Homes of America, RESNET's mission is to develop national standards for home energy ratings and to create a market for home energy rating systems and energy mortgages.

The Home Energy Rating System (HERS) Index is the industry standard by which a home's energy efficiency is measured. It is also the nationally recognized system for inspecting and verifying a home's energy efficiency. A certified Home Energy Rater assesses the energy efficiency of a home, assigning it a relative performance score. The lower the number, the more energy efficient the home.

To date over 2.9 million homes have been inspected and labeled following RESNET's standards. In 2019 alone, 241,909 new homes were inspected, tested, and issued a Home Energy Rating System (HERS) Index Score according to the Residential Energy Services Network's (RESNET) standards. The homes that were HERS Rated consumed an average of 41% less energy than a home built in 2006 - and 71% less energy than a home built in the 1970s.

This increased efficiency translates to an overall energy cost saving of $178 million annually for these environmentally conscience home buyers. These same HERS rated homes are calculated to reduce domestic carbon production by 622,000 tons annually. This is the equivalent to taking 119,000 passenger cars off the road.

This would create good paying American jobs and a boost to U.S. energy efficient product manufacturers.

It would also boost the economy by homeowners having more disposal income through reduced utility bills.

Problem: A Challenging Climate for Homebuyers and Increasing the Energy Efficiency of America's Housing Stock

A lack of transparency and rationality in the housing market and mortgage industry is hurting homeowners and buyers and slowing the adoption of the energy efficiency practices of homes.

Increasing energy costs and a struggling economy are forcing consumers to change the way they purchase and finance their homes. Most homebuyers are already aware that buying a house means more than just paying the mortgage. What they want to know is the true affordability of homes they are considering, which also means taking into account what the monthly operating costs would be.

For homeowners, as money gets tighter, they are looking for ways to cut costs, including solutions that could help reduce their energy bills. Money saved through energy efficiency improvements can be put towards paying off their mortgages.

Through a research partnership with the University of North Carolina, RESNET has identified that the main barriers to achieving these goals are the lack of transparency and rationality in the real estate and mortgage industries. These two sectors fail to appreciate the value of energy efficient features in homes and the energy savings that they deliver. This makes it difficult for homebuyers to compare homes based on energy performance - and in the case of homeowners, to finance energy efficiency improvements to their existing homes.

- Recent studies show that mortgage default risks are, on average, thirty-two percent lower for energy efficient homes with lower HERS Index scores.
- Residential buildings are responsible for the largest primary use of energy in the United States - at twenty percent.
- Energy efficiency improvements add value to existing homes.

The failure to acknowledge the benefits of energy saving affects not only homeowners and buyers, but also has a direct economic impact on the construction, remodeling, and manufacturing sectors. These industries are unable to benefit from any increase in business that would otherwise be generated by homeowners investing in energy efficient retrofits.

Since homes represent a significant use of primary energy in the U.S. it is also a lost opportunity in terms of achieving significant energy and carbon savings.

Proposed Solution: A New Formula for Determining Housing Affordability

Introducing energy efficiency into the equation when determining housing affordability.

In order to reduce energy consumption and reduce carbon emissions in homes, HUD should issue guidance that: directs mortgage underwriters to consider energy efficiency measures included in the home that will lower operating expenses for purposes of calculating mortgage qualification, home value and qualifying interest rate.

A formula that accounts for energy savings as well as fixed costs would provide a more accurate guideline by which to determine housing affordability. The formula would be as follows:

Principal + Interest + Taxes + Insurance – Monthly Energy Savings (PITI-ES) = TOTAL COST

The University of North Carolina's Center for Community Capital and the Institute for Market Transformation (IMT) released a report in 2013 titled "Home Energy Efficiency and Mortgage Risks" which shed new light on the role played by energy efficiency in determining the risk factor for financing homes.

The report clearly shows that by making energy efficient upgrades to their homes, homeowners were able to save a significant amount of money, which they could then use to pay their mortgages.

It was found that default risks are thirty-two percent lower, on average, for energy efficient homes as compared to standard homes.

The results were consistent across a wide variety of factors including:

- Size of home
- Age of home
- Median neighborhood income
- Borrower credit score
- Loan – to – Value Ratio
- House value
- Loan Type

The report was based on a study that examined loan performance data, supplied by CoreLogic, the lending industry's leading source for such information.

A sample of 71,000 HERS rated and non-HERS rated single-family home mortgages were sampled. Each of these homes had been rated by certified RESNET Home Energy Raters. This sample was compiled from across 38 states and the District of Columbia. Data was collected - considering factors such as loan, household, and neighborhood characteristics. RESNET supplied both the home address and the HERS Index scores to the University of North Carolina (UNC) for the purposes of this study. The report also showed that lower HERS Index Scores translated into even lower default risks.

The Home Energy Efficiency and Mortgage Risks study can be downloaded at http://www.resnet.us/library/lower-mortgage-risks-with-energy-efficient-homes/

In 2019 Freddie Mac undertook a similar analysis. The study "Energy Efficiency: Value Added to Properties & Loan Performance" looked at homes rated under RESNET's HERS between 2013 and 2017. The report states "[Freddie Mac] conducted this analysis to understand the value and the loan performance associated with energy-efficient homes to support the consideration of energy efficiency in mortgage underwriting practices." The findings include analysis on property value, loan performance, default risk, borrower characteristics, and demographics.

Freddie Mac used data provided by RESNET on HERS rated homes from 2013 to 2017 to select a random sampling of about 70,000 HERS rated homes. Working with a major credit bureau, Freddie Mac obtained data on each of these homes plus five comparable unrated homes for each rated home for a total of about 450,000 properties.

The analysis of this data concluded:

- **From the property value analysis, HERS rated homes are sold for, on average, 2.7% more than comparable unrated homes.**

- **Homes with lower HERS Index Scores are sold for 3-5% more than homes with higher HERS Index Scores.**

- **From an underwriting perspective, there are notable differences between HERS rated and unrated homes.**
  - RESNET-rated homes have lower delinquency rates than unrated homes, both in terms of becoming ever 60 days and over 90 days delinquent.
  - Homes with lower HERS Index Scores had even lower delinquency rates.
  - Homes with lower HERS Index Scores also had better mortgage profiles in general: owners with higher average credit scores (FICO), lower Loan To Values (LTV) ratios at origination, higher origination unpaid principal balances (UPB),

higher owner incomes, and higher neighborhood incomes at the census tract level.

- The lower delinquency rates remain for HERS rated versus unrated homes even for homeowners with higher debt-to-income ratios of 45% or more.

The Energy Efficiency: Value Added to Properties & Loan Performance can be found at https://sf.freddiemac.com/content/_assets/resources/pdf/fact-sheet/energy_efficiency_white_paper.pdf?utm_source=eloqua&utm_medium=email&utm_campaign=2019-10-22_AFFORD_DTS_REPORT_Energy_Efficiency_Whitepaper

The most recent analysis of the benefits of HERS rated energy efficient homes in mortgage loan performance was conducted in 2020 by the Florida Solar Energy Center and Robert Sahadi, former Fannie Mae vice president of product development and vice president of mortgage-backed securities. The analysis investigated the potential mortgage impact implications on Veteran Administration (VA) Home Loans of a new HERS rated, energy-efficient home versus an older nonenergy efficient home. The results of this analysis found that a home with a HERS Index Score of 61 generated significant "additional buying power" from $13,000 to over $24,000 with the same income and down payment. This additional buying power would allow a VA borrower to gain the energy savings and health benefits of a high energy performance new home with lower housing costs than an older, less efficient home.

The Impact of Energy Efficiency on VA Home Loans study can be found at https://www.resnet.us/wp-content/uploads/Impact-of-Energy-Efficiency-on-VA-Homes.pdf

One way for consumers to finance energy efficient improvements at competitive mortgage rates (rather than high commercial credit ones) would be through energy efficient mortgages. Although these have been available for decades, they have not been used due to the following reasons:

1. It has not fully valued the monthly energy savings in the mortgage loan.
2. Tighter mortgage qualification rules (which do not recognize energy efficiency).
3. Lack of information about the link between energy efficient homes, lower energy costs and mortgage default risks.
4. The complicated process involved in applying for and getting an energy efficient mortgage.
5. Poorly developed lender guidance and benefits.

Crediting energy efficiency when determining housing affordability would help make energy efficient mortgages far more accessible to consumers than they are now.

Congressional action is not required to implement this change. This could be accomplished by administrative action.

Benefits: Greater Transparency and Rationality in the Housing Market

A new mortgage formula will deliver transparency and rationality to the housing market.

A new formula for determining housing affordability that accounts for energy efficiency savings will significantly improve the accuracy of current mortgage pricing as well as increasing underwriting flexibility.

Principal + Interest + Taxes + Insurance – Monthly Energy Savings [PITI-ES] = TOTAL COST

Some of benefits of these measures will include:

- Driving job growth in the construction and manufacturing sectors.
    - Energy efficient homes would become more affordable, which would increase demand. This would directly benefit the construction, remodeling, and manufacturing sectors.

- Enabling homebuyers to make informed buying decisions when comparison-shopping for homes based on energy performance.

- Allowing homeowners to obtain the underwriting flexibility needed to finance the modest additional cost of energy efficiency features.
    - This would give homeowners access to money-saving benefits of energy efficiency without increasing the cost of homeownership.
    - The result would be increased affordability for moderate to middle income borrowers.

- Allowing homebuilders and owners to recover the cost of energy efficiency investments at the closing table.

- Creating more secure mortgages.
    - Homeowners would be able put the money saved on energy bills towards their mortgage payments.

- Lower energy bills for homeowners.
    - On average, U.S. homeowners pay approximately $2,500 annually on home energy bills.
    - Investing in energy efficiency upgrades could reduce a homeowner's energy bills by up to thirty percent.

- Reducing U.S. energy consumption, dependence on imported energy and environmental pollution.
    - A typical household will waste thirty percent more energy annually than one that is energy efficient.

- No government funding required at either state or federal level.
    - The Federal Reserve System places the current value of U.S. housing stock at approximately $14.5 trillion. Efforts to incentivize home energy retrofit, through rebates or tax credits could be cost prohibitive and only scratch the surface of what is needed.
    - By adopting the proposed change to the formula for calculating retrofit improvements can be financed through the mortgage.

Bringing transparency and rationality to the housing market is long overdue. Inflexible mortgage underwriting and appraisal procedures place obstacles in the paths of homeowners who want to invest in cost-saving energy efficient improvements. In addition, while consumers across the United States can make informed buying choices for appliances and cars based on energy performance, it is far more difficult for them to do so when purchasing a home.

In conclusion, RESNET would like to propose that the new proposed loan qualification calculation be drafted and released as either a Department of Housing and Urban Development (HUD) directive or a Notice of Proposed Rule Making (NPRM) by HUD. Stakeholders can then take part in the public comment process and provide valuable feedback to the Agency.

Lastly, we would suggest that the Secretary of HUD form an ad hoc advisory panel to provide subject matter expertise on possible implementation and/or revisions to improve consumer accessibility for this energy efficient mortgage product.

RESNET strongly supports the introduction of these measures and believes their positive effects should not be underestimated. Consumers will benefit from improved quality of life and increased financial savings, leading to growth in the economy. The construction, remodeling, and energy efficiency sectors would profit from business growth and job creation.

Appendix Draft Mortgage Policy

ENHANCED LOAN ELIGIBILITY REQUIREMENTS.

Section XXX of title XX, United States Code, is 3 amended—

(1) in subsection (X)(X)(X), by inserting ‘‘, including with respect to the energy efficiency of the home for which the loan is to be guaranteed as described in subsection (i)’’ before the period; and
(2) by adding at the end, the following new subsection:

‘‘(1) In cases where a borrower provides to the Secretary an energy efficiency report described in paragraph (2) for a home for which a loan is to be guaranteed, the procedures established pursuant to subparagraph (C) of subsection (g)(3) for ascertaining the monthly income required by a borrower to meet anticipated loan payment terms shall take into consideration the estimated energy cost savings expected for the borrower for the home, including such cost savings relating to the cost of electricity, natural gas, oil, and any other fuel regularly used to supply energy to the home. Any such cost savings shall be used to offset regular expenses for the home calculated in the debt-to-income ratio described in subparagraph (A) of such subsection.

(2) An energy efficiency report described in this paragraph, with respect to a home for which a loan is to be guaranteed, means a report that

(A) estimates the expected energy cost savings specific to the home, based on specific information about the home;

(B) is prepared in accordance with regulations prescribed by the Secretary for purposes of this subsection; and

(C) is prepared in accordance with

(i) the Residential Energy Service Network’s Home Energy Rating System (commonly known as ‘‘HERS’’) by an individual certified by such Network; or

(ii) if the Secretary determines that the use of such System under clause (i) is not appropriate for purposes of this subsection, other methods determined appropriate by the Secretary, in consultation with the advisory committee under paragraph (3), including with respect to third-party quality assurance procedures.

(3) To assist the Secretary in carrying out this subsection, the Secretary shall establish an advisory group consisting of individuals representing the interests of

(A) mortgage lenders;
(B) appraisers;
(C) energy rater organizations and residential energy consumption experts;
(D) energy efficiency organizations;
(E) real estate agents;
(F) home builders and remodelers;
(G) consumer advocates;
(H) environmental organizations; and
(I) other persons determined appropriate by the Secretary.