



U.S. Department of Energy
Office of Energy Efficiency and Renewable
Energy, Building Technologies Program
Mailstop EE-2J
1000 Independence Avenue, S.W.
Washington, DC 20585-1585

March 24, 2010

Reference: Docket No. EERE-2009-BT-BC-0021

Dear Sir or Madam:

The Manufactured Housing Institute (MHI), a trade association representing all segments of the factory-built housing industry including manufacturers, lenders, community owners, retailers, and state associations, appreciates the opportunity to comment on the Department of Energy (DOE) Advanced Notice of Proposed Rulemaking (ANOPR) on Energy Efficiency Standards for Manufactured Housing.

DOE will be proposing standards in accordance with Section 413 of the Energy Independence and Security Act (EISA) of 2007. EISA requires DOE to base the energy efficiency standards on the most recent version of the International Energy Conservation Code (IECC), except in cases where the code is not cost effective. DOE must also consider the climate zones defined in the National Manufactured Home Construction and Safety Standards (NMHCSS).

DOE, in proposing energy conservation standards for manufactured housing, has an opportunity and a challenge to develop standards that utilize innovative, state of the art building technology and materials to create life cycle cost savings for homebuyers. At the same time, the new energy standards must keep manufactured housing as an affordable option for the large population of American families who are unable to afford a site-built home.

The manufactured housing industry, with its preemptive building code, is uniquely positioned to lead the way in meeting national energy conservation goals. The factory-built construction process has enabled the manufactured housing industry to be at the forefront of developing high performance and cost effective energy efficient building processes and products while preserving the affordability for current and future homebuyers.

Background

Manufactured housing represents an important segment of the Nation's housing market and its impact on the housing market and the U.S. economy is substantial. Approximately 18 million people reside in 11 million manufactured homes throughout the United States. According to the 2007 American Housing Survey of the United States, the median income of a family living in manufactured housing was \$28,343. In 2008, according to the U.S. Census Bureau, the average sales price of a new manufactured home was \$64,900, excluding land and the average price per square foot was \$41.34. In contrast and indicative of the affordability gap, in 2008 the average sales price of a site built home was \$292,600 excluding land, and the average price per square foot was \$88.55.

Historically, manufactured housing has represented just over one fifth of the single family housing market. However, during the last decade the industry has endured a protracted period of declining sales—experiencing nearly a 75% decline in home shipments over that period. In 2009, manufactured housing represented 14 percent of the new single family housing market.

The industry has, like the rest of the housing market, been adversely affected by the lack of credit and liquidity. There is virtually no secondary market for the financing of manufactured home loans today and this has adversely impacted the ability of manufactured homebuyers to obtain affordable financing. Failure to secure such financing could result in a further down turn in an industry that employs over 70,000 people in its factories and retail sales centers. As discussed in more detail below, increased home purchase costs resulting from more stringent energy standards will only exacerbate the lack of affordable financing.

The HUD -Code is unique since it is specifically designed for compatibility with factory production. In contrast to traditional site-building techniques, manufactured homes have the advantage of using engineered design and cost-efficient assembly line techniques. Combined with a uniform inspection and enforcement system, manufactured homes are comparable and in many regards superior in quality and durability to their site built counterparts which must conform to prescriptive standards.

While manufactured housing has the advantage of a preemptive uniform and performance-oriented standard, the energy requirements were last updated in 1994. As with other sectors of the building industry, manufactured home builders rely on regular standards updates in order to enable them to design and build homes using the new, efficient and innovative construction techniques. The Manufactured Housing Improvement Act passed by Congress in 2000 (the "2000 Act") established a Manufactured Housing Consensus Committee (MHCC) to propose timely and regular

changes to the HUD-Code. It will be imperative for DOE, in proposing energy efficiency standards, to take into consideration HUD's views and its statutory role over the HUD-Code.

In passing the 2000 Act, Congress reaffirmed that manufactured housing plays a vital role in meeting the nation's housing needs, and that manufactured homes provide a significant source of affordable home ownership and rental housing accessible to all Americans {see P.L. 93-383, section 602(a)}. The 2000 Act authorized HUD to implement model installation standards for manufactured housing, recognizing the need for a single agency to have jurisdiction over the standards and compliance with the standards both in the plant and in the field. Having oversight over all parts of the home construction, from fabrication through installation, vested in a single agency, HUD, is an efficient model of regulatory oversight.

It is with this background that DOE will have the challenge to develop standards that meet the requirements of the EISA and which keeps manufactured housing affordable to homebuyers.

The Federal government has a good track record in promoting programs and policies that result in net life cycle cost savings to consumers, but it has been less successful in demonstrating that such life cycle cost savings can be achieved without jeopardizing the ability of low and moderate income buyers to purchase energy efficient homes in the first instance. As such, the 1994 changes to the manufactured home energy standards required HUD to take into consideration life cycle costs.

The Environmental Protection Agency's Energy STAR program, which has been adopted by over 90 percent of our manufactured homebuilders, has resulted in the sale of Energy STAR homes that represent 5% of all manufactured homes currently produced. The primary impediment to greater acceptance of the Energy STAR home has been the fact that the average manufactured homebuyer has been unable, because of income, to qualify for a loan to purchase the Energy STAR home.

In the 1990's the Bonneville Power Administration (BPA) worked with the manufactured housing industry to develop designs that were highly energy efficient, but well beyond the means of customers to afford. BPA was able to move the market to higher levels of energy performance but only by highly subsidizing the initial cost of the designs.

The BPA situation should give DOE pause to consider how buyers will be able to afford the costs without further subsidies or incentives to meet the desired goal of greater energy efficiency in homes.

Energy Conservation Standards for Manufactured Housing Should Be Performance Based

MHI believes the DOE energy efficiency standards for manufactured housing should be principally designed to employ a “whole building performance approach” to compliance. The new standards must take into consideration the historic success our industry has had in designing and building homes based on engineering practices that consider the entire “envelope” of the home to meet safety, quality and durability standards, and which result in maximum cost efficiencies.

Applying a performance-based approach to standard setting is particularly important for factory builders that generally distribute homes over large geographical areas. The economics of plant production require that the number of product types (SKUs) be minimized: costs rise rapidly for plants that are unable to standardize some aspects of the home, such as window type. For example, with a performance standard, a company can elect to use a single window type and adjust insulation levels to conform to different climate zone requirements. As codes become more prescriptive, companies must stock and coordinate the use of more materials. This involves a higher cost that is unique to factory building and must be considered as part of the total cost of compliance.

Further, the design of the standard should recognize the engineering sophistication of the industry, specifically the ability of home manufacturers to use software that takes into account the major energy-related building elements to meet a whole building energy target. In this regard, factory builders can achieve a level of building system integration that smaller building companies are not equipped to handle. Creating a true performance standard achieves the following: it builds on the industry’s prior experience; opens the door to real innovation; and, offers manufacturers an opportunity to optimize building performance at the lowest possible cost, a huge benefit for homebuyers. Achieving this goal would likely require that DOE develop a compliance approach based on an energy target, rather than component prescriptive measures. This direction is entirely consistent with DOE’s research that leans heavily on systems integration to improve building performance.

Manufactured home building is highly competitive across the nation. Manufacturers use similar building methods, including quality control, inventory management, and engineering and design practices. Innovations that result in a new energy standard will be quickly adopted across the industry, creating rapid market penetration for emerging products, which is a key factor in sustaining new technology.

The new energy conservation standards should take into consideration the software-based solutions for engineering, design and material management that are currently in use today by most if not all home manufacturers. Compliance with the new

standard should be compatible with these software technologies. This will provide an opportunity for manufacturers to evaluate alternatives based on real time cost data, leading to greater cost efficiencies. Standards that rely on software technologies currently used by the industry will enhance the ability to fine tune energy requirements to the design, equipment holdings, and the location of the home. Energy efficient tools woven into the fabric of manufacturing and sales practices and which convey the benefits of greater efficiency will be key to increased customer acceptance of energy efficient homes.

EISA requires that DOE take into consideration the climate zones used in the current code, (24CFR Section 3280.506). These zones are an artifact of the 1992 development process that resulted in the 1994 standards. That effort to establish climate zones represented a balance between cost-effective requirements by location and the home shipping patterns that were then characteristic of the industry. Over time, the context has changed, the plant locations and geographic distribution of new home sales have changed and certainly the levels of cost-effective efficiency have changed. How these factors interplay in producing new requirements and a new set of climate zones is a key factor in developing a new standard. As with other elements of the new standards, we encourage DOE to work closely with the industry in establishing new climate zones.

While EISA requires DOE to use the most current version of the IECC, it is important to note that this code is a site built prescriptive code and was not intended to apply to manufactured homes. We are concerned about how DOE will assess these significantly different approaches to standards setting, and what methodologies it will use to alter the IECC standards to be compatible with manufactured home building processes. The IECC was created by a consensus process focused entirely on site building issues, techniques for energy efficiency applied to site building and involving experts with knowledge of site building. There is no reason to believe that the same process applied to factory building would yield comparable results.

We understand that DOE is considering using the 2012 version of the IECC to propose energy conservation standards for manufactured housing. If this is the case, manufactured home energy standards will be more stringent than the majority of site built homes that complied with earlier versions of the IECC and only when those versions were adopted by the states. Does DOE really intend that manufactured homes meet more stringent energy conservation standards than those required by the site built industry?

Energy Conservation Standards Must be Aligned with the Manufactured Home Construction and Safety Standards (MHCSS) and HUD's Enforcement System

The energy conservation standards developed by DOE will be most effective if they are incorporated into the HUD-Code and its uniform enforcement system. The new standards will likely have an impact on a number of provisions in the HUD-Code,

including provisions relating to air infiltration, condensation control, and the heating and cooling equipment installed in manufactured homes. We urge DOE to coordinate with HUD and ensure that the energy conservation standards work seamlessly with relevant provisions in the HUD-Code, recognizing that any changes to the HUD- Code required by the new energy standards must be reviewed by the MHCC.

MHI strongly recommends that DOE sign a Memorandum of Understanding (MOU) with HUD which gives HUD the authority to enforce the energy conservation standards. HUD's compliance and enforcement program includes third party primary inspection agencies that approve home designs, conduct plant inspections, and monitor compliance. This system is the most efficient way to ensure compliance and minimize costs.

DOE, in finalizing the standards, must give the industry sufficient time to meet the new requirements. We recommend that DOE allow one year from the date the rule is final for manufacturers to comply with the new standards. The effective date must apply to homes manufactured rather than homes sold. Homes already manufactured by the effective date, but not yet sold, must be grandfathered. Additionally, once the standard is finalized, DOE should give the industry time to incorporate it into their engineering process, material ordering, inventory realignment, and marketing and sales efforts before changing it. There must be sufficient time for existing materials and products to flush through the manufacturing system.

Energy Conservation Standards Must Take into Consideration Initial Home Cost As Well as Life Cycle Cost Savings

The affordability of manufactured homes is the primary reason that the industry has been able to succeed in meeting a significant portion of the nation's housing needs. While the HUD-Code provides the option for manufactured homes to be built across a wide spectrum of home prices, from the average price of \$64,900 up to home prices in the hundreds of thousands of dollars, the industry's core business is affordable housing.

DOE has a challenge to create a standard that benefits consumers by reducing monthly housing costs, and at the same time keeps the manufactured home affordable to the consumer. MHI certainly supports efforts to reduce monthly energy costs, but we are concerned about the ability of the typical manufactured homebuyer to qualify for a home loan to purchase the more energy efficient home in the first instance.

EISA requires DOE to use the latest version of the IECC, and at the same time, it requires DOE to consider cost effectiveness. Furthermore, the requirement to consider both the IECC and cost effectiveness is inherently at odds. What is contained in the IECC is not likely to coincide with what is cost effective to manufactured housing. How does DOE intend to resolve this contradiction?

We are concerned that DOE will ignore cost effectiveness particularly for the lower end of the market. It is this buyer that is most sensitive to even small increases in home costs. Unlike the buyer of a site built home who can finance increased energy costs over a long term, the manufactured homebuyer typically finances his or her home for a shorter term. Because the majority of manufactured homes are financed as installment loan contracts rather than real estate loans, the loan term averages about 10 years and the interest rate is typically three to four percentage points higher than a real estate loan. The ability to finance energy costs over a longer term is limited.

Conclusion

We appreciate the opportunity comment on this ANOPR. We encourage DOE to continue to learn more about the manufactured housing industry and utilize MHI and its members as a resource. We look forward to working with DOE on the issues addressed in this letter.

Sincerely,

A handwritten signature in cursive script that reads "Lois Starkey". The signature is written in black ink and is positioned below the word "Sincerely,".

Lois Starkey, Vice President
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