#### MANUFACTURED HOUSING CONSENSUS COMMITTEE

1.888.602.4663 | MHCC@HUD.GOV | MHCC@HOMEINNOVATION.COM

# DRAFT MINUTES MHCC MEETING

June 10, 2021

# DRAFT MINUTES MANUFACTURED HOUSING CONSENSUS COMMITTEE (MHCC) MEETING

June 10, 2021

#### Call to Order

The Manufactured Housing Consensus Committee (MHCC) meeting was held on Thursday, June 10, 2021 via Zoom teleconference. Kevin Kauffman, Administering Organization (AO) Home Innovation Research Labs, called the roll and announced that a quorum was present. See <a href="Appendix A">Appendix A</a> for a list of meeting participants.

#### Introduction and Opening Remarks

Teresa Payne, Administrator of the Office of Manufactured Housing Programs, and Designated Federal Officer (DFO) thanked the members for their time and introduced Lopa Kolluri, Principal Deputy Assistant Secretary for the Office of Housing and the Federal Housing Administration.

Ms. Kolluri addressed the committee and provided some additional background on herself. The meeting of the MHCC comes at a critical time where our nation is facing an affordable home crisis. Manufactured homes are and must be the part of the solution solving the shortage.

MHCC Chair, Mitchel Baker gave the opening comments. He welcomed the MHCC members and meeting participants to the teleconference, praised the hard work of committee members and encouraged public members to participate in the dialogue.

#### Approval of the Minutes

MHCC Motion: Approve the Draft January 7, 2021 MHCC Meeting Minutes.

Maker: Robert Parks Second: Alan Spencer

The motion carried unanimously.

#### **Public Comments Period**

MHARR and MHI submitted written public comments. See Appendix B.

Lesli Gooch, MHI, thanked everyone for their time. Ms. Gooch thanked Ms. Kolluri for addressing the committee. Ms. Gooch stated that HUD Secretary Fudge has made comments on the importance of Manufactured Housing (MH) to the industry. MHI believes that the industry-wide AC letters have been helpful and looks forward to updating the standards. Ms. Gooch appreciated the members for their roles on the committee and suggested approval of log items 220, 222, 223, 195. Log 195 provides greatly needed clarity and streamlining to inspections. Ms. Gooch expressed her delight to see that the Department of Energy (DOE) is coordinating with HUD and the MHCC with energy modifications and thanked Teresa Payne and HUD for their participation. MHI expressed concerns that the previous energy code proposal from the DOE did not properly estimate the impact on the Manufactured Homes cost and

affordability. The MHCC noted that it appears as though DOE did not develop an implementation plan. Further, Ms. Gooch reemphasized a few points for the committee to keep in mind:

- 1. Energy rules must balance affordability with advancements and energy conservation.
- 2. Any proposed energy standards must not conflict with HUD standards. HUD is mandated to consult MHCC for energy rules.
- 3. There has to be a clear compliance path to avoid overlapping standards and clarity.

Mark Weiss, MHARR, stated that they agree with the vast majority of subcommittee recommendations. However, they disagree with the subcommittee recommendations on log items 211 and 216, one regarding testing and the other insulation. With the increasing cost of raw materials, MHARR believes now is not the time to for the inclusion of new requirements. He also asked the MHCC to disapprove the proposed rule regarding the DOE energy presentation because, in his opinion, failed on many grounds, especially the cost-benefit analysis. The current code is a base-code, and a manufacturer is free to go above and beyond the code if they wish, but the baseline does not need to be adjusted. Any proposal from DOE should start fresh and include MHCC from the beginning and any new proposal should accurately consider cost vs. benefits.

#### Report from the Technical System Subcommittee

Log 211: § 3280.715 (a)(4) Airtightness of supply duct systems.

MHCC Motion: Approve as Modified Log 211.

Maker: Alan Spencer Second: Catherine Yielding

The motion carried via voice vote with 3 negatives.

Log 212: § 3280.709(h) Installation of appliances.

MHCC Motion: Approve as Modified Log 212.

Maker: David Tompos Second: Joseph Sullivan

The motion carried unanimously via voice vote.

Log 216: § 3280.715 (a)(7) Supply system.

MHCC Motion: Refer Log 216 to Subcommittee.

Maker: David Tompos Second: Garold Miller

The motion carried unanimously via voice vote.

The proposed change was referred to subcommittee for further discussion. There is a cost associated with the R- value (R-4 to R-8). This item should be moved back to subcommittee for further deliberations. Section 3280.715 (a) (6) talks about supply ducts whereas section (7) discusses supply and return ducts. The MHCC noted that the subcommittee recommendation contains an apparent conflict with section 3280.715 which requires further investigation.

Log 219: § 3280.703 Minimum standards.

MHCC Motion: Approve as Modified Log 219.

Maker: David Tompos Second: Phillip Copeland

The motion carried unanimously via voice vote.

The language was modified to clarify that heat pump water heaters are permitted and added edition years.

Log 222: § 3280.710—Venting, Ventilation, and Combustion Air.

MHCC Motion: Approve Log 222.

Maker: David Tompos Second: Cameron Tomasbi

The motion carried via voice vote with two negatives.

Log 223: § 3280.715—Circulating Air Systems.

MHCC Motion: Approve Log 223.

Maker: James Husom Second: Joseph Sullivan

The motion carried unanimously via voice vote.

#### Report from the Regulatory Enforcement Subcommittee

Mike Moglia debriefed the committee on Log 195, which contained substantial edits, prior to the lunch break and encouraged the committee members to use their lunch time to review the contents of Log 195.

#### **LUNCH BREAK**

Log 195: § 3282 Subpart M - On-Site Completion of Construction of Manufactured Homes.

MHCC Motion: Approve as Modified Log 195.

Maker: David Tompos Second: Tara Brunetti

The motion carried unanimously via voice vote.

Log 209: § 3282.16(b)(1) Incorporation by reference.

MHCC Motion: Approve Log 209.

Maker: James Husom Second: Joseph Sullivan

The motion carried unanimously via voice vote.

Log 214: 24 CFR Part 3286 Inspection Requirements.

MHCC Motion: Disapprove Log 214.

Maker: Rita Diienno Second: Garold Miller The motion carried via voice vote with one negative.

Log 218: § 3285 NFPA 501A Chp 6 2003 Edition.

MHCC Motion: Disapprove Log 218.

Maker: Michael Moglia Second: Garold Miller

The motion carried unanimously via voice vote.

DRC 4: FR6030-N-01 – 24 CFR part 3282 Subpart M.

MHCC Motion: Review and Consider - No Further Action Required DRC 4.

Maker: Michael Moglia Second: Cameron Tomasbi

The motion carried unanimously via voice vote.

#### Report from the Structure and Design Subcommittee

Log 207: § 3280.305(c)(4) Map.

MHCC Motion: Disapprove Log 207.

Maker: Russel Watson Second: Michael Moglia

The motion carried unanimously via voice vote.

Log 208: § 3280.904(b)(3) Chassis.

MHCC Motion: Disapprove Log 208.

Maker: Cameron Tomasbi Second: Robert Parks

The motion carried unanimously via voice vote.

Log 210: § 24 CFR 3280 Subpart C Fire Safety.

MHCC Motion: Disapprove Log 210.

Maker: Michael Moglia Second: Catherine Yielding

The motion carried unanimously via voice vote.

Log 213: § 3280.6 Serial Number.

MHCC Motion: Approve Log 213.

Maker: Rita Dilenno Second: Joseph Sullivan

The motion carried unanimously via voice vote.

Log 215: § 3280.305(g)(6) Floors.

MHCC Motion: Disapprove Log 215.

Maker: Cameron Tomasbi Second: Rita Dilenno

The motion carried via voice vote with one negative and one abstention.

Log 217: § 3280.6.

MHCC Motion: Disapprove Log 217.

Maker: Michael Moglia Second: Catherine Yielding

The motion carried unanimously via voice vote.

Log 220: § 3280.107—Interior Privacy.

MHCC Motion: Approve as Modified Log 220.

Maker: Rita Dilenno Second: Joseph Sullivan

The motion carried unanimously via voice vote.

Log 221: § 3280.209—Smoke Alarm Requirements.

MHCC Motion: Disapprove Log 221.

Maker: David Tompos Second: Tara Brunetti

The motion carried unanimously via voice vote.

Log 224: § 3285.402(d) Ground anchor installations.

MHCC Motion: Disapprove Log 224.

Maker: Michael Moglia Second: Garold Miller

The motion carried unanimously via voice vote.

#### Presentation of Department of Energy Regarding Manufactured Housing Energy Efficiency Rulemaking

John Cymbulsky and Matt Ring from the Department of Energy (DOE) presented information about the proposed energy efficiency requirements for Manufactured Homes. The figures in the presentation were based on a proposal and are not final. John and Matt fielded various questions from the MHCC and members of the public about the content in the presentation, how it was derived, and its potential implications. See Appendix C for DOE presentation.

#### **Public Comment Period**

Mark Weiss expressed his concern that the cost increases due to the DOE proposals will be significantly greater than the proposal in 2014, therefore more potential homeowners will be excluded. This is a major issue, as this could be a situation where millions of people are excluded from the market due to the increase in cost. Everyone loves energy efficiency, but not at the expense of the most vulnerable groups who are purchasing these affordable homes. He suggested that DOE has excluded any usable MHCC input. Plenty of courts have recognized that when an agency puts a proposed rule together, they are unlikely to change the rule. He believes the MHCC needs to be assertive, and needs HUDs backing, when it comes to the management of the energy efficiency requirements of Manufactured Housing.

Michael Lubliner, who is a current user of energy efficient manufactured housing and a former MHCC member, stated that the real travesty is that it has been far too long since the minimum standards have been changed, and he does not want any potential increase to minimum standards to exclude low-income people. There is a need to find a balance point to get a win-win situation. This might end up being more of a financing issue than an affordability issue. It is not just acquiring the home; it is the ability to occupy and operate the home.

Lesli Gooch expressed her appreciation to the OMHP team, pushing for the DOE team to come and address the MHCC. She believes that they have been neglected and are not privy to the important behind the scenes conversations.

DFO Payne encouraged the MHCC members in the producer category to look at their costs and put together some numbers to provide to DOE with comments. She believes that the soft costs that were discussed in the meeting are very important and could have been overlooked by DOE. Having actual data with comments will be very helpful.

Russel Watson mentioned that one special thing about the MHCC is the balance of views represented and expressed his discomfort at the idea that most decisions are being based on a select group in 2014. He questioned why DOE is not using anyone from the industry or the MHCC itself.

Stacey Epperson pointed out that all the records of that working group are available online.

Lesli Gooch expressed her hope that every member of the MHCC can see that MHI and its members want to reach consensus and build housing that everyone wants. Ms. Gooch stated that the DOE proposed rule was significantly different than the one that MHI originally agreed with and that they participated in every opportunity to comment on the proposed rule.

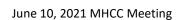
DFO Payne voiced that HUD always advocated any rule like this to be created with consultation with the MHCC. DFO Payne assured that this is a DOE rule, and they are doing what they have been tasked. HUD did not have a vote or a voice for the working group.

#### Wrap Up - DFO & AO

Kevin Kauffman announced the closing of comments on ballots and future meetings. DFO Payne appreciated everyone's attention on this topic and participation. Michael Baker also appreciated the subcommittee's work on all the log items and thanked the subcommittee chairs.

#### Adjourn

The motion to adjourn the meeting was carried.



# Appendix A: MHCC Attendees

	МНСС		
	Name	Attendance	
	David Anderson	Υ	
	Catherine Yielding	Υ	
Users	Garold Miller	Υ	
Users	Stacey Epperson	Υ	
	Russell Watson	Υ	
	Rita Diienno	Υ	
	Luca Brammer	N	
	Phillip Copeland	Υ	
Droducore	Peter James	Υ	
Producers	Robert Garcia	Υ	
	Manuel Santana	Υ	
	Alan Spencer	Υ	
	Michael Moglia	Υ	
	Robert Parks	Υ	
General Interest / Public Official	Mitchel Baker (Chair)	Υ	
	David Tompos	Υ	
	Tara Brunetti	Υ	
	Aaron Howard	Υ	
	James Husom	Υ	

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Teresa Payne, DFO Jason McJury Barton Shapiro Demetress Stringfield Alan Field

Glorianna Peng Charles Ekiert Christina Foutz Tommy Daison Angelo Wallace Denair Andersen

Mike Hollar

Liz Davis Barry Ahuruonye

AO Staff, Home Innovation
Research Labs
Kevin Kauffman
Nay Shah
Elina Thapa

Public
William Sherman
Lesli Gooch
Mark Weiss

Michael Lubliner James Turner

Demond Matthews Kara Beigay Megan Booth

Antoinette Price Devin Leary-Hanebrink Jennifer Hall

Joseph Sullivan Michael Chavez Nate Kinsey Pat Walker



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# Appendix B: Written Public Comments



## **Manufactured Housing Association for Regulatory Reform**

1331 Pennsylvania Avenue, NW • Suite 512 • Washington, DC 20004 • 202-783-4087 • Fax 202-783-4075 • mharrdg@aol.com

June 3, 2021

#### VIA ELECTRONIC SUBMISSION

Manufactured Housing Consensus Committee C/O Home Innovation Research Labs Administering Organization 400 Prince George's Boulevard Upper Marlboro, Maryland 20774

Re: Log Items Scheduled for Review – June 10, 2021

<u>Manufactured Housing Consensus Committee Meeting</u>

Dear Members of the Manufactured Housing Consensus Committee:

The Manufactured Housing Association for Regulatory Reform (MHARR) submits the following comments to the Manufactured Housing Consensus Committee (MHCC/Committee) regarding Log Items and other agenda topics scheduled for discussion at the Committee's June 10, 2021 meeting as announced in the Federal Register on May 25, 2021. MHARR is a national trade *organization* representing smaller and medium-sized producers of manufactured housing subject to federal regulation pursuant to the National Manufactured Housing Construction and Safety Standards Act of 1974, as amended by the Manufactured Housing Improvement Act of 2000 (42 U.S.C. 5401, et seq.).

#### I. <u>INTRODUCTION</u>

The MHCC was established by Congress as the centerpiece reform of the Manufactured Housing Improvement Act of 2000. Under the 2000 reform law, the MHCC must either propose or review – and recommend to the HUD Secretary – any and all new manufactured housing standards, regulations and related interpretations. Furthermore, its function, as is made clear both by its composition and by its express statutory duties and responsibilities, is <u>not</u> solely "technical" in nature. While an analysis of the technical merit of any proposal is clearly <u>part</u> of the MHCC's statutory function, its duties and responsibilities extend much further, to a consideration of: (1) whether a proposal serves to advance the statutory objectives of the 2000 reform law (42 U.S.C. 5401); (2) an analysis of the probable effect of the proposed standard, regulation, or interpretation on the "cost of the manufactured home to the public" (42 U.S.C. 5403(e)(4)); and (3) whether the

benefits of any such proposal outweigh its costs and likely impact on the "availability of affordable manufactured homes (41 U.S.C. 5401(b)(2)). MHCC consideration of <u>any</u> proposal, therefore, involves not just an analysis of technical merit, but also a balancing of whether a proposal, even if technically sound, would produce negative cost impacts that would override its value in connection with a type of housing that, as a matter of law and federal policy, is – and must remain – inherently affordable for every American and, most particularly, lower and moderate-income homebuyers.

The <u>most</u> important statutory role, function and duty of the MHCC, consequently, is to advise the Secretary of HUD, as the guardian of the 2000 reform law and the party with ultimate responsibility for the HUD manufactured housing program, as to which proposed standards, regulations and interpretations would advance the purposes and objectives of federal law, while simultaneously maintaining the non-subsidized affordability of HUD Code manufactured housing as specifically directed and mandated by Congress. The MHCC, as a result, cannot and <u>should not</u> approve or recommend to the Secretary suggested actions that might anecdotally "sound like a good idea," without specifically and rigorously considering the cost impact of any such action and whether <u>it would create a negative, damaging or destructive precedent for the federal program</u>, for manufactured homes or for American consumers of affordable housing.

Based on this statutory formulation, which is <u>mandatory</u> for both the MHCC and HUD, the MHCC should <u>reject</u> the specific Log Items set forth below, as well as <u>any</u> purported "energy conservation" standards based upon the sham "negotiated rulemaking" process conducted by the U.S. Department of Energy (DOE) in 2015.

#### II. <u>COMMENTS</u>

MHARR agrees with and supports the subcommittee recommendations regarding the vast majority of the Log Items before the Committee. This includes the subcommittee recommended actions concerning Log Items 195, 207, 208, 209, 210, 212, 213, 214, 215, 217, 218, 219, 220, 221, 222, 223 and 224. MHARR's subcommittee-level comments regarding those Log Items are attached for the Committee's reference.

MHARR, however, continues to object to Log Items 211 and 216, even as modified by the Technical Systems Subcommittee at its meeting on December 8, 2020. The grounds for MHARR's continuing objections are set forth below.

#### A. Log Item 211 – 24 C.F.R. 3280.715 (a)(4) – Airtightness of Supply Duct Systems

This Log Item, as modified by the Technical Systems Subcommittee, would repeal and delete the current text of 24 C.F.R. 3280.715(a)(4), which provides a <u>performance-based</u> standard for the airtightness of supply ducts and replace it with new prescriptive language requiring that "Factory installed supply ducts located partially or completely outside the building thermal envelope, with or without air handlers installed in the factory, shall demonstrate air leakage to the outside or total air leakage of less than or equal to 8 cfm per 100 ft2 of conditioned floor area when tested at a difference pressure of 0.1 inch (25pa). Supply duct testing shall occur at a frequency determined by the manufacturer's quality assurance manual." The original proponent of this

proposal asserted that the current standard and parameters are "antiquated," and that the proposed new prescriptive parameters are "similar to the 2009 IECC [International Energy Conservation Code]" published by the International Code Council (ICC).

MHARR objects to this proposal – both as originally proposed and as modified by the Subcommittee -- on multiple grounds.

- First, aside from the anecdotal assertion that the current standard is "antiquated," neither the original proponent nor the Subcommittee have offered or provided <u>any</u> data or information to demonstrate that the existing standard is irrelevant, ineffectual, or has resulted in adverse safety impacts;
- Second, neither the original proponent nor the subcommittee have justified or explained the supposed need for a shift from the current performance-based standard to a prescriptive standard, contrary to 24 C.F.R. 3280.1.
- Third, while the original proponent acknowledged cost impacts resulting from this proposal, neither the original proponent nor the Subcommittee has specifically <u>quantified</u> potential costs versus claimed benefits;
- Fourth, neither the original proponent nor the Subcommittee has offered <u>any</u> data or analysis to support the adoption of the parameter proposed, other than claiming alleged "similarity" to the 2009 IECC.

The IECC, however, was not, has not been, and is not developed specifically for manufactured housing and takes no special cognizance of the unique design, construction and affordability issues affecting manufactured housing and is not based on a balancing of costs versus benefits, as is statutorily required for HUD manufactured housing standards.<sup>2</sup> Inclusion in the IECC, therefore, is provides no basis and/or justification for the inclusion of an identical or similar standard in the HUD Code, and the adoption or recommendation of a particular standard just because it is included in the IECC or any ICC-administered code for site-built homes would create a negative and dangerous precedent for the MHCC, for the HUD Code and for the affordability of HUD Code manufactured homes.

Moreover, every iteration of the IECC to date, has been developed through an ICC "governmental consensus process," where code criteria are adopted exclusively by state and local building officials. Due to the federally-preemptive status of the HUD Code, however, those state and local building officials are generally not responsible for regulating the construction, safety or affordability of manufactured housing, have not been responsible for regulating manufactured homes for nearly five decades, and arguably have no basis, experience or expertise for developing standards specifically relating to manufactured

<sup>2</sup> Federal law requires that the MHCC, in recommending proposed standards to the Secretary, "consider the probable effect of such standard on the cost of the manufactured home to the public." 42 U.S.C. 5403(e)(4).

<sup>&</sup>lt;sup>1</sup> 24 C.F.R. 3280.1 states, in relevant part: "This standard seeks to the maximum extent possible, to establish performance requirements..." (Emphasis added).

housing. As a result, any "similarity" between Log Item 211 and the IECC standards is irrelevant at best and not a legitimate basis for adopting the proposed provision.

#### B. <u>Log Item 216 – 24 C.F.R. 3280.715 (a)(7) – Supply System</u>

This Log Item, as modified by the Technical Systems Subcommittee, would add new language to 24 C.F.R. 3280.715(a)(7) which would require "supply and return ducts, fittings and crossover duct plenums outside of the thermal envelope, such as those ducts located in an unvented or vented attic ... be insulated with material having a minimum thermal resistance of R-8 in all Thermal Zones." The original proponent of this proposal maintained that "the manufactured housing industry is basically the only industry that still allows the cheapest insulated duct (R-4) to be placed in the hottest cavity of the building." The original proponent's submission stated that the proposed change would have "no" additional cost, but then contradicted this assertion, stating: "The average cost for a single-section home to upgrade from R-4.2 to R-8 is approximately \$100...."

MHARR continues to object to this proposal on multiple grounds.

- First, the HUD Code is a <u>base</u> standard. Any manufacturer that wishes to do so can produce homes with R-8 insulation in the home spaces specified by the proposal, and any consumer can request R-8 insulation if they deem it necessary in the area where their home will be sited. Changing the standard on a nationwide one-size-fits-all basis will not alter the options available to purchasers, but <u>will</u> increase the cost of the home for <u>all</u> purchasers, including those who might not wish to have enhanced insulation or plan to site their home in a warm or humid climate area;
- Second, this one-size-fits-all mandate fails to consider the negative health effects and costs of enhanced insulation in humid climate areas where condensation can be a significant issue;
- Third, neither the implementation cost of this new requirement, or the value of alleged cost "offsets" supposedly flowing from its adoption, are substantiated with specific data or information;
- Fourth, adopting this change would establish a dangerous, negative precedent that would encourage product suppliers across a wide range of home components and materials to seek to use the regulatory process to coerce manufacturers and consumers into purchasing either more of their products or more costly products such as higher "R" value insulation. Put differently, the MHCC should not act in ways that would encourage special interests to abuse the regulatory process to drive higher sales.

Consequently, while higher "R" value insulation should be available for consumers, it should not be affirmatively mandated by the HUD Code for all manufactured homes in all Thermal Zones.

#### C. Presentation Regarding Manufactured Housing Energy Conservation Standards

MHARR has <u>consistently</u> opposed the adoption of destructive and needlessly costly manufactured housing energy conservation standards proposed by the U.S. Department of Energy. This is particularly the case for proposed standards proffered by DOE in 2016, which were based on alleged "data" and concepts developed as part of an arguably corrupt and distorted "negotiated rulemaking" process conducted by DOE.

Beyond the fact that the previously-proposed 2016 standards are not supported by available cost data, which shows that per-square-foot energy operating costs for HUD Code manufactured homes are already either lower than or comparable to those of other types of homes, the imposition of such standards – which would increase the purchase cost of a new manufactured home by at least \$4,000 to \$6,000 in 2016 dollars, and now likely much more due to higher raw materials costs -- would exclude literally millions of lower and moderate-income Americans from the manufactured housing market, from homeownership altogether, and from all of the social and economic benefits attendant to homeownership. For those excluded from the market, there would, per se, be no benefits from any such rule whatsoever. And, more broadly, the extreme purchase price cost increases for those few homebuyers left in the market, would far outweigh any extremely limited alleged operating cost savings. The MHCC, therefore -- as it has in the past – should reject any attempt by DOE to adopt its previously proposed 2016 manufactured housing energy standards and should demand strict and accurate cost justification for any new standards that DOE may propose.

In order to accomplish that objective, it is <u>absolutely essential</u> that DOE go back to the proverbial "drawing board" and <u>completely</u> start-over its process for the development of manufactured housing energy standards <u>based on legitimate</u>, accurate data, and a <u>legitimate process that fully includes both HUD and the MHCC</u> and is fully consistent (in both procedure and its results) with federal manufactured housing law as amended by the Manufactured Housing Improvement Act of 2000.

#### III. CONCLUSION

In accordance with the forgoing MHARR urges the MHCC to reject Log Items 211 and 216, and to accept the recommendations of the Regulatory Enforcement, Structure and Design, and Technical Systems subcommittees with respect to the balance of the Log Items scheduled for review in accordance with the Agenda for the Committee's June 10, 2021 meeting. In addition, MHARR would urge the Committee once again, to reject the imposition of ultra-costly so-called "energy conservation" standards developed pursuant to an illegitimate and arguably corrupt DOE "negotiated rulemaking" process, that would needlessly undermine the purchase affordability of manufactured housing and exclude millions of lower and moderate-income homebuyers from the manufactured housing market and the only type of homeownership that they could otherwise afford. Instead, the MHCC should demand that DOE begin a new and fully-legitimate process for the development of manufactured home energy standards and develop legitimate, fact-based

criteria that fully preserve the purchase price affordability of today's manufactured homes.

Sincerely,

Mark Weiss

President and CEO

cc: Hon. Marcia Fudge Hon. Jennifer Granholm



# **Manufactured Housing Association for Regulatory Reform**

1331 Pennsylvania Avenue, NW • Suite 512 • Washington, DC 20004 • 202-783-4087 • Fax 202-783-4075 • mharrdg@aol.com

November 4, 2020

#### VIA FEDERAL EXPRESS AND ELECTRONIC SUBMISSION

Manufactured Housing Consensus Committee C/O Home Innovation Research Labs Administering Organization 400 Prince George's Boulevard Upper Marlboro, Maryland 20774

Re: Log Items Scheduled for Review -- November 12, 2020 MHCC Structure and Design Subcommittee Meeting

Dear Members of the MHCC Structure and Design Subcommittee:

The Manufactured Housing Association for Regulatory Reform (MHARR) submits the following comments to the Structure and Design Subcommittee of the Manufactured Housing Consensus Committee (MHCC), regarding the Log Items scheduled for discussion at the Subcommittee's November 12, 2020 meeting, as announced in the Federal Register on October 26, 2020. MHARR is a national trade association representing smaller and medium-sized producers of manufactured housing subject to federal regulation pursuant to the National Manufactured Housing Construction and Safety Standards Act of 1974, as amended by the Manufactured Housing Improvement Act of 2000.

#### I. INTRODUCTION

The Manufactured Housing Consensus Committee (MHCC) was established by Congress as the centerpiece reform of the Manufactured Housing Improvement Act of 2000. Its function, as is made clear both by its composition and by its express statutory duties and responsibilities, is not merely "technical" in nature. While an analysis of the technical merit of any proposal is certainly part of the MHCC's statutory function, its duties and functions extend much further, to a consideration of: (1) whether a proposal serves to advance the statutory objectives of the 2000 reform law (42 U.S.C. 5401)<sup>1</sup>; (2) an analysis of the probable effect of the proposed standard, regulation or interpretation on the "cost of the manufactured home to the public" (42 U.S.C.

<sup>&</sup>lt;sup>1</sup> The law states, in relevant part: "The purposes of this title are - (1) to protect the quality, durability, safety and affordability of manufactured homes [and] (2) to facilitate the availability of affordable manufactured homes and to increase homeownership for all Americans."

 $5304(e)(4))^2$ ; and (3) whether the benefits of any such proposal outweigh its costs and its likely impact on the "availability of affordable manufactured homes." (42 U.S.C. 5401(b)(2)). MHCC consideration of *any* proposal, therefore, involves not just an analysis of technical merit, but also a balancing of whether a proposal, even if technically sound, would produce negative cost impacts that would override its value in connection with a type of housing that, as a matter of federal policy, is – and must remain – inherently affordable for every American and, particularly, lower and moderate-income homebuyers.

Based on this statutory formulation, which is *mandatory* for both the MHCC (including subcommittees) and HUD, MHARR offers the following comments on the Log Items scheduled for review at the November 12, 2020 Structure and Design Subcommittee meeting.

#### II. <u>COMMENTS</u>

#### A. Log Item 207 – 24 C.F.R. 3280.305(c)(4) – Snow Load Map

It is unclear whether this Log Item calls for replacement of the current 40 PSF (North), 30 PSF (Middle) and 20 PSF (South) snow load requirements with 42 PSF and 35 PSF snow loads to "match the Minnesota State Code requirement," or whether it is possibly seeking to change only the 20 and 30 PSF criteria respectively. In either event, this Log Item should be rejected for at least four reasons: (1) it provides no cost information and, therefore, no cost benefit analysis in accordance with 42 U.S.C. 5403(e)(4); (2) it provides no specific evidence of manufactured home roof failures due to snow loads above the required parameters; (3) it provides no evidence supporting the higher parameters in all three areas (North, Middle and South); and (4) the HUD standards are a "floor" standard – manufacturers can provide and homebuyers can obtain higher snow load capacities as optional features. Mandating Minnesota snow load requirements for all snow map areas would be clearly excessive and unnecessarily costly.<sup>3</sup>

#### B. Log Item 208 - 24 C.F.R. 3280.904(b)(3) -- Chassis

This Log Item call for the inclusion of unspecified "additional methods to protect against deformation of" the home's "finish, when a recessed porch area is constructed with the home." The proposal, however, does not state what those "additional methods" would be, or provide information as to their cost, or provide an analysis of their cost-benefit. Consequently, MHARR opposes this Log Item as stated, and it should be rejected as stated by the Subcommittee.

<sup>&</sup>lt;sup>2</sup> The law provides, in relevant part: "The consensus committee, in recommending standards, regulations and interpretations ... shall: \*\*\* (4) consider the probable effect of such standard on the cost of the manufactured home to the public

<sup>&</sup>lt;sup>3</sup> The law addresses this as well, stating, in relevant part: "The consensus committee, in recommending standards, regulations and interpretations ... shall (3) consider whether any ... proposed standard is reasonable for the particular type of manufactured home or for the geographic region for which it is prescribed." (Emphasis added).

#### C. Log Item 210 - 24 C.F.R. 3280 Subpart C - Fire Safety

This Log Item would add a requirement for Carbon Monoxide alarms to the Part 3280 manufactured housing standards. Assuming that the stated cost information is validated and no other or additional costs are entailed, MHARR supports this proposal. The proposal should be clarified, however, to specify that the "manufacturer's instructions" referenced in proposed section 3280.211 (a) are the "alarm manufacturer's instructions."

#### D. <u>Log Item 213 – 24 C.F.R. 3280.6 – Serial Number</u>

This Log Item would require that the home serial number be stamped on the "inside of' the foremost cross member in order to ensure that the number is visible in homes installed on full foundations. Assuming that this requirement would have no cost impact, as stated, MHARR supports this proposal.

#### E. Log Item 215 - 24 C.F.R. 3280.305(g)(6) -- Floors

This Log Item would add a provision requiring that bottom board patches "include an adhesive seal and be mechanically fastened every 4"-6" around the entire perimeter." Currently, the standard provides only that "Patch installation instruction[s] shall be included in the manufactured home manufacturer's instructions." Because of the way that the proposal is stated, it is unclear whether the additional language would require: (1) that the manufacturer include the additional proposed language regarding an "adhesive seal" and "mechanical fastening" in the manufacturer's installation instructions; or (2) whether the additional proposed language would require some other additional action by the manufacturer as part of the construction process; or (3) would require some action by the homeowner or a person other than the manufacturer. Regardless, however, MHARR opposes this proposal. First, in the event that this proposal involves only a prescriptive instruction in the manufacturer's home instructions, it is not shown whether the methodology required would be appropriate for all homes or the most cost-effective approach for every home. An across-the-board prescriptive mandate of this sort would be inconsistent with the performance-based nature of the standards. Second, in the event that the proposal requirement would mandate additional action by the manufacturer in the factory, there is no evidence, again, that an across-the-board prescriptive mandate is appropriate or warranted for every home and/or every patch situation. Third, to the extent that this proposal would require some post-production action by a homeowner or repair provider (other than a manufactured home retailer), there is no statutory basis for the assertion of HUD regulatory jurisdiction over such persons.

#### F. Log Item 217 – 24 C.F.R. 3280.6 – Wind Zone Certification

This Log Item would require that the wind zone, thermal zone and roof load zone parameters for each home be stamped into the foremost cross member of each home in 3/8" minimum height. Assuming that this requirement would have no cost impact, as stated, MHARR supports this proposal.

#### G. <u>Log Item 220 – 24 C.F.R. 3280.107 – Interior Privacy</u>

This Log Item would eliminate the existing privacy lock requirement for "bathroom and toilet compartment doors." Insofar as this change would provide both manufacturers and consumers with additional design options and, assuming that this change would have no cost impact, as stated, MHARR supports this proposal.

#### H. Log Item 221 – 24 C.F.R. 3280.209 – Smoke Alarm Requirements

This Log Item would allow combination smoke and carbon monoxide alarms to be used "in lieu of smoke alarms." Such a provision, as well as a provision for UL listing are already contained in Log Item 210. Consequently, if Log Item 210 is approved for recommendation, this Log Item would become superfluous.

#### I. Log Item 224 – 24 C.F.R. 3285.402(d) – Ground Anchor Installations

This Log Item would require a "known anchor preload (1000 lbs.) for each anchor installation." The proponent states that specifying such an anchor strap tension level would not entail any additional cost. MHARR opposes this proposal as stated. First, there is no evidence presented that the current applicable standard is insufficient or that home installations completed in accordance with the present standard have failed to any significant degree. Second, there is no evidence to show that an across-the-board tensioning standard of 1000 lbs. would be appropriate for all soil types and/or conditions. Third, the absence of any cost impact resulting from such a standard appears unlikely. Fourth, anchor tensioning criteria should be addressed by the anchor manufacturer in its manual, based on relevant factors and criteria, which may vary.

#### III. <u>CONCLUSION</u>

In accordance with the foregoing, MHARR urges the Structure and Design Subcommittee to reject Log Items 207, 208, 215, 221 and 224. Beyond these proposals, however, MHARR urges the Subcommittee *and the full MHCC* to demand information and an answer from HUD regarding the status of the regulatory reform proposals reviewed and recommended by the MHCC in 2019 (and early 2020). To date, there has been no public action by HUD to follow-up on the extensive and detailed consideration and recommendations provided by the MHCC with respect to those proposals. In accordance with both the 2000 reform law and Executive Orders 13771 and 13777, HUD is *required* to take action with respect to those MHCC recommendations.

Sincerely,

Mark Weiss

President and CEO

cc: Hon. Dana Wade



## **Manufactured Housing Association for Regulatory Reform**

1331 Pennsylvania Avenue, NW • Suite 512 • Washington, DC 20004 • 202-783-4087 • Fax 202-783-4075 • mharrdg@aol.com

November 10, 2020

#### VIA FEDERAL EXPRESS AND ELECTRONIC SUBMISSION

Manufactured Housing Consensus Committee C/O Home Innovation Research Labs Administering Organization 400 Prince George's Boulevard Upper Marlboro, Maryland 20774

Re: Log Items Scheduled for Review -- November 19, 2020 MHCC Regulatory Enforcement Subcommittee Meeting

Dear Members of the MHCC Regulatory Enforcement Subcommittee:

The Manufactured Housing Association for Regulatory Reform (MHARR) submits the following comments to the Regulatory Enforcement Subcommittee of the Manufactured Housing Consensus Committee (MHCC), regarding the Log Items scheduled for discussion at the Subcommittee's November 19, 2020 meeting, as announced in the Federal Register on October 26, 2020. MHARR is a national trade association representing smaller and medium-sized producers of manufactured housing subject to federal regulation pursuant to the National Manufactured Housing Construction and Safety Standards Act of 1974, as amended by the Manufactured Housing Improvement Act of 2000.

#### I. INTRODUCTION

The Manufactured Housing Consensus Committee (MHCC) was established by Congress as the centerpiece reform of the Manufactured Housing Improvement Act of 2000. Its function, as is made clear both by its composition and by its express statutory duties and responsibilities, is not merely "technical" in nature. While an analysis of the technical merit of any proposal is certainly part of the MHCC's statutory function, its duties and functions extend much further, to a consideration of: (1) whether a proposal serves to advance the statutory objectives of the 2000 reform law (42 U.S.C. 5401); (2) an analysis of the probable effect of the proposed standard, regulation or interpretation on the "cost of the manufactured home to the public" (42 U.S.C. 5304(e)(4)); and (3) whether the benefits of any such proposal outweigh its costs and its likely impact on the "availability of affordable manufactured homes." (42 U.S.C. 5401(b)(2)). MHCC consideration of any proposal, therefore, involves not just an analysis of technical merit, but also a balancing of whether a proposal, even if technically sound, would produce negative cost impacts

is – and must remain – inherently affordable for every American and, particularly, lower and moderate-income homebuyers.

Based on this statutory formulation, which is *mandatory* for both the MHCC (including subcommittees) and HUD, MHARR offers the following comments on the Log Items scheduled for review at the November 19, 2020 Regulatory Enforcement Subcommittee meeting.

#### II. <u>COMMENTS</u>

#### A. Log Item 209 – 24 C.F.R. 3282.16(b)(1) – Incorporation by Reference

This Log Item would update the reference standard incorporated by this section from the 2015 edition of NFPA 1192, Standard on Recreational Vehicles, to the 2018 edition of NFPA 1192. Insofar as the reference standard relates to an exception to the HUD Code for certain compliant recreational vehicles, this proposal would have no direct cost impact on manufactured housing producers. Accordingly, MHARR has no objection this proposal.

#### B. Log Item 214 - 24 C.F.R. Part 3286 - Inspection Requirements

This Log Item would repeal duplicative inspection requirements contained in the HUD manufactured housing installation regulations, which impose additional unnecessary costs on homebuyers in HUD administered states. Insofar as this proposal would result in reduced costs for consumers without a negative impact on safety, MHARR supports this proposal.

#### C. Log Item 218 – 24 C.F.R. Part 3285 – Incorporation by Reference

This Log Item would update the installation standards' incorporation by reference of NFPA 501A from the 2003 edition to the 2017 edition, in part to address physical separation concerns. The proponent maintains that the 2017 edition reduces physical separation requirements for manufactured homes from ten feet to five feet. MHARR believes that additional information is needed to: (1) confirm the proponent's representations; (2) ensure that bulk incorporation by reference of the 2017 edition does not result in the <u>de facto</u> adoption of other requirements or mandates; and (3) confirm that such incorporation by reference would not result in additional consumer costs over and above compliance with the current 2003 edition incorporated by reference in 24 C.F.R. 3285(h)(3) and 3285.101.

#### III. CONCLUSION

In accordance with the foregoing, MHARR urges the Regulatory Enforcement Subcommittee to defer action on Log Item 218, pending receipt of additional necessary information. Beyond these proposals, however, MHARR urges the Subcommittee *and the full MHCC* to demand information and an answer from HUD regarding the status of the regulatory reform proposals reviewed and recommended by the MHCC in 2019 (and early 2020). To date, there has been no public action by HUD to follow-up on the extensive and detailed consideration and recommendations provided by the MHCC with respect to those proposals. In accordance with both the 2000 reform law and Executive Orders 13771 and 13777, HUD is *required* to take action with respect to those MHCC recommendations.

Sincerely,

Mark Weiss

President and CEO

cc: Hon. Dana Wade

Members, Manufactured Housing Consensus Committee



# **Manufactured Housing Association for Regulatory Reform**

1331 Pennsylvania Avenue, NW • Suite 512 • Washington, DC 20004 • 202-783-4087 • Fax 202-783-4075 • mharrdg@aol.com

December 1, 2020

#### VIA FEDERAL EXPRESS AND ELECTRONIC SUBMISSION

Manufactured Housing Consensus Committee C/O Home Innovation Research Labs Administering Organization 400 Prince George's Boulevard Upper Marlboro, Maryland 20774

Re: Log Items Scheduled for Review -- December 8, 2020 MHCC Technical Systems Subcommittee Meeting

Dear Members of the MHCC Technical Systems Subcommittee:

The Manufactured Housing Association for Regulatory Reform (MHARR) submits the following comments to the Technical Systems Subcommittee of the Manufactured Housing Consensus Committee (MHCC), regarding the Log Items scheduled for discussion at the Subcommittee's December 8, 2020 meeting, as announced in the Federal Register on November 10, 2020. MHARR is a national trade association representing smaller and medium-sized producers of manufactured housing subject to federal regulation pursuant to the National Manufactured Housing Construction and Safety Standards Act of 1974, as amended by the Manufactured Housing Improvement Act of 2000.

#### I. INTRODUCTION

The Manufactured Housing Consensus Committee (MHCC) was established by Congress as the centerpiece reform of the Manufactured Housing Improvement Act of 2000. Its function, as is made clear both by its composition and by its express statutory duties and responsibilities, is not merely "technical" in nature. While an analysis of the technical merit of any proposal is certainly part of the MHCC's statutory function, its duties and functions extend much further, to a consideration of: (1) whether a proposal serves to advance the statutory objectives of the 2000 reform law (42 U.S.C. 5401); (2) an analysis of the probable effect of the proposed standard, regulation or interpretation on the "cost of the manufactured home to the public" (42 U.S.C. 5304(e)(4)); and (3) whether the benefits of any such proposal outweigh its costs and its likely impact on the "availability of affordable manufactured homes." (42 U.S.C. 5401(b)(2)). MHCC consideration of any proposal, therefore, involves not just an analysis of technical merit, but also a balancing of whether a proposal, even if technically sound, would produce negative cost impacts that would override its value in connection with a type of housing that, as a matter of law and

federal policy is – and must remain – inherently affordable for every American and, particularly, lower and moderate-income homebuyers.

Based on this statutory formulation, which is *mandatory* for both the MHCC (including subcommittees) and HUD, MHARR offers the following comments on the Log Items scheduled for review at the December 8, 2020 Regulatory Enforcement Subcommittee meeting.

#### II. <u>COMMENTS</u>

#### A. Log Item 211 - 24 C.F.R. 3280.715(a)(4) - Airtightness of Supply Duct Systems

This Log Item would repeal and delete the current text of 24 C.F.R. 3280.715(a)(4), which provides a performance-based standard for the airtightness of supply ducts and replace it with new language requiring that supply ducts "demonstrate air leakage to the outside or total air leakage of less than or equal to 8 cfm per 100 ft2 of conditioned floor area when tested at a difference pressure of 0.1 water (25pa)." The proponent asserts that the current standard/parameters are "antiquated" and that the proposed new prescriptive parameters are "similar to the 2009 IECC [International Energy Conservation Code]. MHARR objects to this proposal on multiple grounds. First, aside from the anecdotal assertion that the current standard is "antiquated," there is no data or information offered to demonstrate that the existing standard is either irrelevant, ineffectual, or has resulted in any adverse safety impacts. Second, the proponent acknowledges cost impacts resulting from this proposal, but does not specifically quantify potential costs versus claimed benefits. Third. the proponent offers no data or analysis to support adoption of the criterion proposed, other than claiming alleged "similarity" to the 2009 IECC. The IECC, however, unlike the HUD Code, is not specifically designed for manufactured housing, and is not based on a balancing of costs versus benefits, as is statutorily required for HUD manufactured housing standards. Thus, any "similarity" to the IECC standards is irrelevant at best.

#### B. Log Item 212 – 24 C.F.R. Part 3280.709(h) – Installation of Appliances

This Log Item calls for the re-location of the current requirement for water heater drip pans from 24 C.F.R. 3280.709(h), where it is stated at present, to 24 C.F.R. 3280.609(c)(iv), which the proponent maintains would be more appropriate. Insofar as this proposed change is ministerial only, and would not entail either a substantive change in the Code requirement or the cost of compliance, MHARR has no objection to this proposal.

#### C. Log Item 216 – 24 C.F.R. Part 3280.715(a)(7) – Supply System

This Log Item would add new language to 24 C.F.R. 3280.715(a)(7) that would require ducts "located in an unvented or vented attic" to be insulated with material "having a minimum thermal resistance of R-8 in all Thermal Zones." The proponent maintains that "the manufactured housing industry is basically the only industry that still allows the cheapest insulated duct (R-4) to be placed in the hottest cavity of the building." The proponent's submission, maintains that the proposed change would have "no" additional cost, but then contradicts this assertion, stating: "The average cost for a single-section home to upgrade from R-4.2 to R-8 is approximately \$100...." MHARR objects to this proposal on cost grounds. Neither the implementation cost of this new

requirement, or the value of alleged cost "offsets" supposedly flowing from its adoption, are substantiated with specific data or information. Thus, while this option should be available for consumers, it should not be affirmatively mandated by the HUD Code for all manufactured homes in all Thermal Zones.

#### D. <u>Log Item 219 – 24 C.F.R. 3280.703 – Minimum Standards</u>

This Log Item would specify that heat pump water heaters could be installed by the manufacturer in new manufactured homes. Insofar as this proposed change is permissive and would increase consumer choice without mandating the use of such water heaters – which could entail additional cost to the consumer – MHARR does not object to this proposal.

#### E. Log Item 222 – 24 C.F.R. 3280.710 – Venting, Ventilation and Combustion Air

This Log Item would allow for ductless range hoods that are not vented to the exterior of the home. Insofar as the proposed change would increase the appliance placement options available to homeowners while potentially reducing production and homeowner costs, MHARR does not object to this proposal.

#### F. Log Item 223 – 24 C.F.R. 3280.715 – Circulating Air Systems

This Log Item would add bathrooms and closets as exceptions to the current requirement relating to the return of circulating air "from all rooms and living spaces." Insofar as this proposed change would potentially expand home design options without entailing additional costs for either manufacturers or consumers, MHARR does not object to this proposal.

#### III. CONCLUSION

In accordance with the foregoing, MHARR urges the Technical Systems Subcommittee to reject Log Items 211 and 216, as stated, absent additional necessary information. Beyond these proposals, however, MHARR urges the Subcommittee *and the full MHCC* to demand information and an answer from HUD regarding the status of the regulatory reform proposals reviewed and recommended by the MHCC in 2019 (and early 2020). To date, there has been no public action by HUD to follow-up on the extensive and detailed consideration and recommendations provided by the MHCC with respect to those proposals. In accordance with both the 2000 reform law and Executive Orders 13771 and 13777, HUD is *required* to take action with respect to those MHCC recommendations.

Sincerely,

Mark Weiss

President and CEO

cc: Hon. Dana Wade Members, Manufactured Housing Consensus Committee



June 3, 2021

Manufactured Housing Consensus Committee Office of Manufactured Housing Programs U.S. Department of Housing and Urban Development 451 7th Street SW, Room 9166 Washington, D.C. 20410

## RE: Notice of a Federal Advisory Committee Meeting Manufactured Housing Consensus Committee (Docket No. FR-6270-N-01)

Dear Sir/Madam:

The Manufactured Housing Institute (MHI) is pleased to provide feedback to the U.S. Department of Housing and Urban Development (HUD) and the Manufactured Housing Consensus Committee (MHCC) in response to the request for public comments in preparation for the MHCC's upcoming teleconference on June 10, 2021. MHI appreciates the efforts of HUD and the MHCC to ensure updates to the HUD Code are appropriate and allow for even greater evolution by our industry.

MHI is the only national trade association that represents every segment of the factory-built housing industry. Our members include home builders, suppliers, retail sellers, lenders, installers, community owners, community operators, and others who serve the industry, as well as 48 affiliated state organizations. In 2020, our industry produced nearly 95,000 homes, accounting for approximately nine percent of new single-family home starts. These homes are produced by 33 U.S. corporations in 136 plants located across the country. MHI's members are responsible for close to 85 percent of the manufactured homes produced each year.

MHI has previously submitted comments to the various MHCC Subcommittees in response to the proposed changes for the 2020-2021 HUD Code development cycle which will be discussed during the full MHCC meeting. We appreciate the work done by the Subcommittees on these issues but would like to highlight a few Log Items for the full Committee to consider.

#### Log 195 - 3282 Subpart M - On-Site Completion of Construction of Manufactured Homes

In January 2020, the Regulatory Enforcement Subcommittee met and proposed revisions to this section of the HUD Code. In advance of the Subcommittee's meeting, MHI submitted a comment letter advocating for reasonable updates to Subpart M that would streamline the inspection process and reduce the paperwork requirements. (See Appendix A). While further changes may still be needed, MHI recommends the Committee approve this Log Item at this time as it addresses many of the industry's concerns.

#### Log 216 - § 3280.715 (a)(7) – Supply system

We believe the changes made by the Subcommittee address our previous concerns. MHI recommends that the Committee approve this Log Item.

#### Log 215 - § 3280.305(g)(6) - Floors

Log Item 215 relates to the bottom board material repairs. MHI appreciates the deliberation and discussion in the Subcommittee and supports disapproval of this Log Item.

We also continue to support Committee approval of Log Items 220, 222, and 223. MHI appreciates all the work that went into the Subcommittees' deliberations.

We would now like to focus the remainder of our letter on the Department of Energy's (DOE) presentation to the MHCC regarding manufactured housing energy conservation standards.

Manufactured housing is the only type of housing built to a federal construction and safety standard. As mandated by the National Manufactured Home Construction and Safety Standards Act (NMHCSS Act), manufactured homes must comply with numerous federal regulations established by HUD, known as the HUD Code. The HUD Code's single regulatory framework for home design and construction includes standards for health, safety, energy efficiency, and durability. Ensuring that the HUD Code is regularly updated is critically important to our industry. If the HUD Code is not updated on a consistent basis, our members cannot continue to provide millions of Americans with access to safe, affordable manufactured homes that include the latest innovations, technologies and features that consumers demand.

Manufactured housing is also the only type of housing with construction and safety standards that are preempted under federal law.<sup>1</sup> Further, the NMHCSS Act states that federal preemption for manufactured housing is to be broadly and liberally construed to ensure that disparate requirements or standards do not affect the uniformity and comprehensiveness of the HUD Code.<sup>2</sup> This mandate includes the HUD Code's energy conservation standards, which would be impacted by any proposed rulemaking by the Department of Energy.<sup>3</sup>

To be clear, MHI and its members have always supported energy conservation efforts and other reasonable environmental protection initiatives, and we will continue to do so. This industry is already leading the way in "green" manufacturing. Not only are new factory-built homes at least as energy efficient as their site-built counterparts, but in 2020, more than 30 percent of new manufactured homes were built to meet or exceed Energy Star standards.

The controlled environment of the factory-built process not only offers consumers unmatched quality and affordability due to technological advancements and other advantages, but the industry is a pioneer in the development of processes that value efficiency and reduce waste. Our in-factory home builder members are constantly developing new initiatives and technologies, such as comprehensive recycling programs, to reduce waste. The factory-built process utilizes exact dimensions and measurements for most building materials, eliminating waste. Today's modern manufacturing plants are so efficient that everything is reused or recycled such as cardboard, plastic, carpet padding, vinyl siding, scrap wood and much more.

While MHI and its members support sensible conservation efforts, manufactured housing plays a vital role in meeting America's affordable housing needs, and it is imperative that federal requirements continue to protect the quality, durability, safety, and affordability of manufactured housing. MHI appreciates that DOE is coordinating with HUD and the MHCC about manufactured housing energy conservation standards – a step that DOE did not take prior to its 2016 proposed rulemaking.

Because the DOE did not engage with HUD and the MHCC, the previous proposed rulemaking failed to adequately assess the cost impact the proposed regulations would have on buyers of manufactured homes and the industry – a position supported by the MHCC. In assessing the DOE's June 2016 Proposal, the MHCC has already expressed concern that the DOE failed to work with HUD and underestimated the impact its

<sup>&</sup>lt;sup>1</sup> 42 U.S.C. §§ 5403(d).

 $<sup>^{2}</sup>$  Id.

<sup>&</sup>lt;sup>3</sup> *Id.* at 5403(g)(1).

proposal would have on manufacturing costs and home affordability. Further, the MHCC also noted that the June 2016 Proposal did not develop a plan for implementing its standard, which would result in manufacturers facing complicated, overlapping requirements from HUD and the DOE, such as rules for monitoring heat gain and loss (sentiments echoed by MHI in its comment letters). Overlapping compliance requirements will create market uncertainty and that will increase the cost of homeownership. There must be a compliance path that is enforceable by HUD before a proposal can be finalized or any energy conservation standard will cause uncertainty for both homebuyers and within the manufactured housing industry.

As the MHCC discusses the DOE's energy conservation standards for manufactured housing, MHI would like to bring to the Committee's attention several issues they need to consider.

#### I. DOE's Energy Conservation Standards Must Balance Affordability with Energy Efficiency

One of the tenants of the NMHCSS Act is the importance of ensuring that manufactured housing remains an affordable housing option for all consumers considering homeownership. Any increase in construction costs, even modest increases in response to a new energy conservation standard, could jeopardize homeownership for millions of Americans.

MHI conducted a cost analysis of DOE's 2016 Proposal, which showed that under common manufactured finance housing assumptions – a ten percent (10%) down payment, a mortgage with an interest rate of nine percent (9%) and a term of 20 years – over a ten-year period most homeowners would experience a net cost of up to over \$500 for a single section home and over \$1,000 for a double section home. Further, MHI's survey of manufacturers determined that it was very unlikely that a manufactured homebuyer, whose median annual household income is \$33,000, purchasing a new home and financing 90 percent (90%) of the cost, would recapture the cost of the energy features at a future sale. The features that the prior proposal would require a consumer to purchase would instead yield a negative return over the ownership period.

MHI recommends that the DOE work with HUD and the MHCC to weigh the impact that its proposed energy conservation standard will have on the entire manufactured housing industry, not just its manufacturers and consumers. In addition to manufacturers, the industry includes parts suppliers, retail sellers, lenders, installers, community owners, and community managers. A new energy conservation standard will impact all these stakeholders. The DOE must consider these implications and must work with HUD to assess how any proposal will impact the larger industry beyond its manufacturers and consumers.

## II. Any Proposed Energy Standard Must Not Conflict with HUD Standards Which are Preemptive

The NMHCSS Act states "the Federal manufactured home construction and safety standards established by HUD shall include preemptive energy conservation standards." Further, "The Energy Independence and Security Act" mandates that the DOE must consult with HUD, which may seek further counsel from the MHCC, when it comes to developing energy conservation standards for manufactured housing. Additionally, any updated energy conservation standard that the DOE proposes should take into consideration the unique design and factory construction techniques specific to manufactured housing.

Because of these mandates, the DOE must first consult with HUD and the MHCC to assess the economic impact that a new energy conservation standard will have on manufactured housing homeownership.

<sup>&</sup>lt;sup>4</sup> See Appendix 1.

<sup>&</sup>lt;sup>5</sup> 42 U.S.C. § 5403(g)(1).

<sup>&</sup>lt;sup>6</sup> *Id.* at 17071(a)(2)(B).

<sup>&</sup>lt;sup>7</sup> *Id.* at1 7071(b)(2)(A).

The DOE and HUD should then work together to develop the standard, as well as an efficient and practical implementation strategy that HUD will enforce. If the DOE and HUD do not work together, any proposed energy conservation standard will cause delays in home production and increased costs for consumers.

# III. DOE Must Work with HUD to Develop a Clear Compliance Path to Avoid Overlapping Regulations and Ensure Clarity

MHI believes it is unnecessary for the DOE to develop a new enforcement mechanism with any proposed manufactured housing energy conservation standard because the HUD Code is an already-established enforcement mechanism that mandates a uniform standard for design, construction, and installation, including federal requirements for safety, durability, and energy efficiency. While MHI recognizes that the DOE has the authority to develop an energy conservation standard for manufactured housing, it should be developed in coordination with HUD and the MHCC to ensure that any proposed rules are integrated into the HUD Code for enforcement. Failure to partner with HUD would result in complicated, overlapping requirements that will only increase manufacturing costs, hurting existing homeowners and prospective homebuyers.

While MHI and its members will always support sensible energy conservation initiatives, overly burdensome regulations that even modestly increase the cost of a manufactured home will price many consumers out of homeownership. MHI stands ready to work with DOE, HUD and the MHCC on the development of an energy standard that not only encourages innovation and conservation, but also eliminates regulatory barriers that impede consumer access to safe, affordable manufactured housing.

Further, when the HUD Code is not regularly updated, it places an inordinate burden on manufacturers, forcing them to navigate an outdated regulatory landscape to simply provide consumers with the latest innovations, technologies, and features they demand. MHI urges HUD and the MHCC to finalize proposed updates to the HUD Code and for the Department to move forward with finalizing the subsequent sets of updates that have been approved by the MHCC but are still pending HUD action.

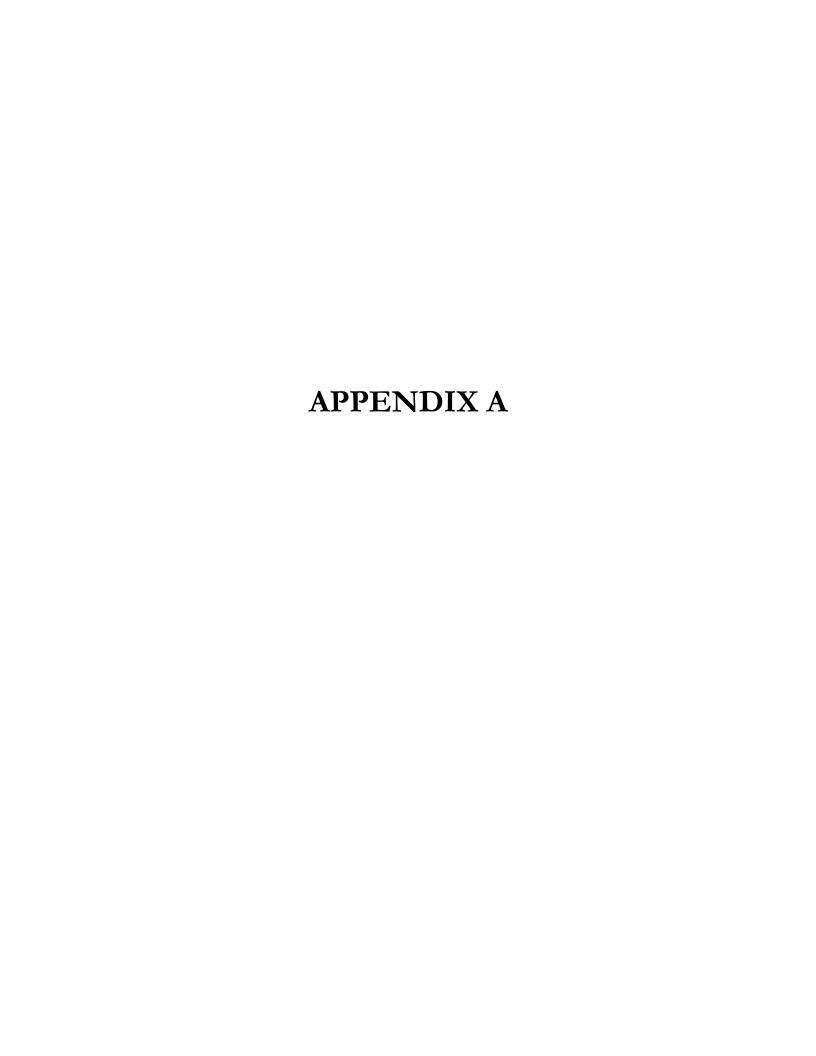
MHI thanks you for the opportunity to share our concerns.

Sincerely,

Lesli Gooch, Ph.D. Chief Executive Officer

Hust Good

Attachment: Appendix A





January 6, 2020

The Honorable Ben Carson Secretary U.S. Department of Housing and Urban Development 451 7th Street SW Washington, D.C. 20410

RE: Notice of a Federal Advisory Committee Meeting: Manufactured Housing Consensus Committee (Docket No. FR-6083-N-05 | 84 Fed. Reg. 68187)
Subpart M – On-Site Completion of Construction of Manufactured Homes

Dear Secretary Carson,

The Manufactured Housing Institute (MHI) is pleased to provide feedback to the U.S. Department of Housing and Urban Development (HUD or the Department) and the Manufactured Housing Consensus Committee (MHCC or the Committee) in response to the request for public comments in advance of the Regulatory Enforcement Subcommittee (the Subcommittee) teleconference meeting on January 14, 2020. MHI appreciates HUD's continued effort to review each outstanding Log Item and Deregulation Comment (DRC) and supports the Subcommittee's work to revise Subpart M of Part 3282 of the HUD Code.<sup>1</sup>

Ensuring that the HUD Code is regularly updated is critically important to our industry. MHI's market research indicates that consumers want homes with the latest amenities, and it is often more effective for these features to be fitted at the jobsite while the home is being installed on its foundation. Our industry is also launching a new class of homes known as CrossMod<sup>TM</sup> that are indistinguishable from site-built homes, and any delay in updating the HUD Code only hurts prospective homebuyers.

#### MHI's Previous Recommendations for Revising Subpart M

For years MHI has argued that Subpart M is unnecessary and that at a minimum the onsite inspection should be consolidated into one inspection performed by a qualified, independent inspector, which will eliminate duplicative requirements and minimize the paperwork burden. Similarly, MHI has suggested that the Production Inspection Primary Inspection Agency's (IPIA) role be reevaluated, allowing for any qualified third-party inspector to complete the home inspection, which would reduce the steps necessary to coordinate delivery, installation, and final inspection.

After publication of the Subpart M final rule in September 2015, almost immediately MHI's membership—including several IPIAs—was unhappy with the requirements. Some manufacturers and retailers believe HUD did not review and consider their public comments before publishing the final rule. Homebuyers also complain that the cumbersome onsite installation and inspection requirements have only driven up home prices, making it harder to find homes with the latest innovative features. In addition to manufacturers and retailers, several State Administrative Agencies (SAA) argue that Subpart M is duplicative, oversteps state authority, and should be repealed. For example, Log Item 195, which is at the

<sup>&</sup>lt;sup>1</sup> See 24 C.F.R.§ 3282, Subpart M.

Page 2 Submission by the Manufactured Housing Institute January 6, 2020

heart of the Subcommittee's review, was submitted by Henry Greene with the California Department of Housing and Community Development and recommends repealing Subpart M in its entirety. This clearly indicates that not every SAA agrees that Subpart M benefits our industry, and these views should be considered by the Subcommittee.

Because Subpart M's requirements are so unclear and there is a lack of demonstrable need for the rule—especially when compared to its effect on home prices and available features—Congress included in its 2018 omnibus package a HUD directive to review the rule and "develop a solution that ensures the safety of consumers and minimizes costs and burdensome requirements on manufacturers and consumers." In its report to Congress, even HUD suggests streamlining the inspection process and reevaluating the IPIA's role to help reduce the burden of the onsite completion of construction requirements.

In advance of the Subcommittee's most recent meetings, MHI again submitted comment letters advocating for reasonable updates to Subpart M that would streamline the inspection process and reduce the paperwork requirements. Specifically, in letters dated August 2, 2019, and October 21, 2019, MHI shared the following minimum recommendations for updating Subpart M: (1) Consolidate the onsite inspection with the final installation inspection; and (2) Reevaluate the role of the IPIA.

#### MHI's Recommendations Following Review of the Subcommittee's Working Drafts

The Subcommittee has already spent hours reviewing Subpart M. Further, several MHCC members have tried to address concerns raised by other members of the Committee and submitted revised versions of Subpart M for review. After participating in every MHCC conference call and in-person meeting on this topic and after reviewing all the materials HUD shared following its October 2019 meeting in Washington, D.C., it is clear that a change to Subpart M will not happen by unanimous vote of the Subcommittee. However, most members of the Subcommittee recognize that Subpart M has been a burden on the industry with limited consumer benefit, and that a change is necessary. MHI strongly urges the Subcommittee to finish amending Subpart M and hold a final vote. Instead of trying to achieve unanimous consent, the Subcommittee should move forward with a final vote so its work is not dominated by a handful of voices with no prospect for resolution on this important effort.

MHI still supports the original recommendation in Log Item 195—Subpart M should be repealed in its entirety. However, recognizing that the Subcommittee does not appear comfortable with this solution to arrive at a final vote, MHI recommends that the Subcommittee approve as submitted the revised version prepared in advance of the MHCC's October 2019 meeting. Because this version consolidates the inspection requirements, streamlines the IPIA's role, and reduces the paperwork burden, MHI believes it is a reasonable alternative that a majority of the Subcommittee can support. Detailed below are the provisions from this draft that are critically important to improve Subpart M:

#### 1. Delete the list of onsite completion examples in 24 C.F.R. § 3282.602(a)(1)–(a)(6).

MHI strongly supports deleting the list of examples of construction that may be completed onsite. The original intent of the list was to provide insight as to what might qualify under Subpart M's new requirements. However, in practice, the example list is usually interpreted by HUD and the SAAs as

<sup>&</sup>lt;sup>2</sup> See HUD's "Report to Congress on the On-Site Completion of Construction for Manufactured Homes," dated June 18, 2019, in response to this Congressional directive.

<sup>&</sup>lt;sup>3</sup> *Id.* at 34-35.

prescriptive, rendering moot the key provision in the regulation that says the manufacturer, the manufacturer's IPIA, and the manufacturer's Design Approval Primary Inspection Agency (DAPIA) can work together to agree that certain aspects of construction will be completed onsite.

Because of continued confusion about what features must meet the "onsite" requirements and who decides what qualifies as "onsite" construction, many manufacturers no longer offer popular consumer amenities that might be subject to Subpart M. Previously, many items that were installed onsite—tile showers or surrounds, large windows, French doors, and fireplaces—did not require additional inspections. Following implementation of Subpart M, duplicative inspections are often required. To avoid these additional steps, several manufacturers (including many smaller, independent manufacturers) simply stopped offering these features. MHI supports removing the list of examples from Subpart M because it not only undermines the supervisory authority that HUD extends to the IPIA and the DAPIA, it also unfairly limits consumer access to modern home features and amenities. The Subcommittee must advance this action.

# 2. Allow any qualified, independent third-party inspector to inspect the components of the home subject to the onsite inspection requirements.

The Subcommittee must continue its review of the IPIA's role and revisit the onsite inspection requirement. Subpart M was initially touted as giving manufacturers greater flexibility to build homes with innovative features and amenities that consumers demand but can be more practically installed at the jobsite (versus in the factory). However, in practice, the requirement creates more layers of bureaucracy. Most notably, Subpart M's cumbersome inspection and approval procedures are expensive and time-consuming with limited consumer benefit.

MHI frequently hears from its members that managing site preparation and installation while trying to coordinate several inspections—including the Subpart M inspection, the HUD Code's required installation inspection, and any other state or local inspections—is a logistical challenge. Both manufacturers and IPIAs have said that dispatching a representative of the manufacturer's IPIA to the homesite is expensive and time-consuming, especially when Subpart M's onsite inspection can be combined with another required inspection that must also be completed by a qualified inspector. Ultimately, these expenses are passed along to consumers as higher home prices.

To address this issue, MHI recommends that Subpart M be amended, allowing manufacturers to select any inspector who: (1) meets HUD's qualifications; and (2) is independent of the manufacturer, retailer, installer, and any other party with a monetary interest in the home. Specifically, MHI suggests that the Subcommittee use HUD's description of a qualified inspector from Part 3286 of the HUD Code as its inspiration.<sup>4</sup> The credentials required of a qualified, independent inspector have already been codified. Instead of requiring the manufacturer's IPIA to travel to the jobsite to complete the inspection, the manufacturer should be allowed to select a local inspector, as long as the inspector meets HUD's qualifications.

MHI recommends that the Subcommittee repurpose the language from Part 3286 to create a new term—qualified inspector—under Subpart A of Part 3282 of the HUD Code.<sup>5</sup> While Subpart M includes a provision that allows the IPIA to designate an independent, qualified third-party inspector acceptable to the IPIA to complete the inspection, in practice, this has only added levels of

<sup>&</sup>lt;sup>4</sup> See 24 C.F.R. § 3286.511.

<sup>&</sup>lt;sup>5</sup> See the list of defined terms under 24 C.F.R. § 3282.7.

bureaucracy, and it is unclear if the IPIA could delegate its role to a SAA or other state-level agency.<sup>6</sup> Ultimately, the manufacturer should be free to work with its IPIA and DAPIA to select a qualified inspector with offices closer to the homesite without having to secure IPIA approval. This will save time and travel expenses, which shortens the installation and inspection process—savings that are passed to the homebuyer.

# 3. Continue working to streamline and enhance Subpart M's administrative requirements to reduce the paperwork burden.

Instead of several targeted inspections followed by a comprehensive final inspection, MHI recommends that the Subcommittee continue exploring opportunities to consolidate processes to optimize regulatory oversight and reduce paperwork, especially in jurisdictions where the SAA inspects 100 percent of the homes installed (e.g., Alabama and California). Many of these steps are duplicative and unnecessary, especially when compared with site-built housing, which does not face this level of scrutiny. Further, by rightsizing the regulatory environment for manufactured housing, the industry can reduce overhead costs and minimize resource constraints that are frequently passed along to consumers as higher home prices. While the Subcommittee's discussion about consolidating the certificate of completion with the site inspection report is a good start, more work is needed.

When a home includes any component that will be completed onsite, the manufacturer is responsible for having the work completed (often by partnering with a local contractor), self-certifying that the work meets the manufacturer's specifications, coordinating with its IPIA to have the work inspected, and then preparing a final site inspection report. These steps are in addition to the paperwork required to secure permission to install onsite components and do not include the HUD Code's in-plant inspection requirements or the state and local installation and final inspection requirements. Altogether, to comply with Subpart M, a manufactured home is inspected three or more times with over a dozen forms, approvals, reports, and other documents changing hands several times among a half-dozen parties. These steps waste the homebuyer's time and drive up costs.

#### Conclusion

Manufactured homes remain the most affordable and attainable homeownership option available in the U.S. today. However, our industry's inherent advantage depends on a streamlined building code that is current and routinely updated. After nearly four years since implementation, it is past time to fix Subpart M. MHI looks forward to working with HUD to ensure that the MHCC's final recommendations are integrated into the HUD Code as quickly as possible. These changes will not only encourage our industry's commitment to innovation, but also eliminate unnecessary regulatory and administrative barriers that impede consumer access to safe, affordable manufactured homes.

Sincerely,

Chul Good

Lesli Gooch, Ph.D. Chief Executive Officer

<sup>&</sup>lt;sup>6</sup> See 24 C.F.R. § 3282.607(d).



1.888.602.4663 | MHCC@HUD.GOV | MHCC@HOMEINNOVATION.COM

# Appendix C: Department of Energy (DOE) Presentation Regarding Manufactured Housing Energy Efficiency Rulemaking



ENERGY Energy Efficiency & Renewable Energy

**Energy Conservation Standards**Briefing for Manufactured Housing

June 10, 2021

Department of Energy Building Technologies Office EERE-2009-BT-BC-0021

\*\*draft, deliberative, predecisional, do not cite or quote\*\*\*

# **Rulemaking History Timeline**

Statute requires DOE to promulgate manufactured housing energy conservation standards based on the most recent version of the IECC, except where DOE finds that the IECC is not cost-effective, or a more stringent standard would be more cost-effective, based on the IECC's impact on the purchase price of manufactured housing and on total life-cycle construction and operating costs.

Pre-2014

- •Energy Independence and Security Act of 2007 (EISA) directs DOE to establish energy conservation standards for MH within one year of updates to International Energy Conservation Code (IECC).
- •DOE was required to complete a rule by December 19, 2011.
- •NOPR submitted to OIRA in 2012/2013 but later withdrawn.
- HUD has regulated MH construction and energy conservation at 24 CFR 3280 since 1976.

2014-2017

- •Manufactured Housing Working Group (MHWG) established in 2014 under ASRAC. Term sheet completed October 31, 2014.
- •Consultation included HUD attending MHWG meetings, participating in interagency review, and communication between HUD and DOE general counsel offices. Several MHCC members were MHWG members.
- •On June 17, 2016, DOE published a notice of proposed rulemaking (NOPR) for energy conservation standards for MH based on recommendations from the MHWG.
- •On January 27, 2017, DOE withdrew from OIRA the 2016 Draft Final Rule (FR) and Test Procedure per OMB Memorandum M-17-16 ("Regulatory Freeze Pending Review").
- •2018 IECC published in August 2017.
- •Lawsuit filed December 18, 2017 Sierra Club v. Perry.

2018-2022

- •On August 3, 2018, In response to concerns related to potential adverse impacts on price-sensitive, low income purchasers of manufactured homes from the imposition of energy conservation standards on manufactured housing, DOE sought additional information from the public regarding these impacts by publishing a notice of data availability (NODA), including potential \$500 increment cost packages. See 83 FR 38073 (August 3, 2018)
- •In July 2019, Energy Star finalized Energy Star version 2 packages for manufactured homes.
- •In November 2019, DOE entered into a consent decree with plaintiffs in *Sierra Club v. Perry* requiring DOE to finalize a SNOPR by May 2021, and a final rule by February 2022
- •In January 2021, the 2021 updated to the IECC was published
- •In response to publication of the 2021 IECC, DOE and the plaintiffs agreed to extend the consent decree deadlines. DOE is now required to finalize a SNOPR by August 14, 2021, and a final rule by May 14, 2022

**ENERGY** Renewable Energy

# Summary of the SNOPR

- DOE is basing standards on the 2021 IECC as follows:
  - Untiered standard/Tier 2 standard; which incorporates building thermal envelope measures based on IECC measures, which include:
    - 2016 NOPR updated to 2021 IECC standard and includes sealing
  - Tier 1 standard; which is designed to address affordability issues by incorporating building thermal envelope measures based on certain thermal envelope components subject to the 2021 IECC that provide financial benefits at a lower-cost.
    - DOE considered the manufacturer retail list price as it relates to MH affordability.
- Includes air sealing (at 5 ACH) and duct sealing (at 4 CFM per 100 square feet) requirements.
  - DOE is preparing an EA to address any IAQ concerns.
- Aligns with the 3 climate zones in the HUD Code.
- Test procedure, compliance and enforcement provisions are not included.



# Performance requirements - Uo and SHGC for all standards

• The  $U_o$  requirements were determined by applying the prescriptive building thermal envelope requirements to manufactured homes using typical dimensions and construction techniques and then calculating the resulting  $U_o$ .

Maximum II Paguiroments	HUD Clima	ID Climate Zone 1 HUD C		UD Climate Zone 2		<b>HUD Climate Zone 3</b>	
<u>Maximum U<sub>o</sub> Requirements</u>	SS	MS	SS	MS	SS	MS	
HUD Code (Baseline)	0.1	.16	0.0	96	0.0	79	
Untiered Standard (2021 IECC)	0.086	0.082	0.062	0.063	0.053	0.052	

Maximum SHGC Requirements	<b>HUD Climate Zone 1</b>	<b>HUD Climate Zone 2</b>	<b>HUD Climate Zone 3</b>
HUD Code (Baseline)		NR	
Untiered Standard (2021 IECC)	0.33	0.25	NR

 DOE's proposal includes Uo requirement that are smaller (more stringent) than HUD's, therefore, a home meeting DOE's Uo requirement would also meet HUD's Uo requirement.



# Financial, Economic, and Fuel Price Assumptions

Financial & Economic Parameters (	(MH Working Group		
and DOE research)			

	Personal Property (Chattel) Loans	Real Estate Loans	
Mortgage interest rates	9%	5%	
Loan term	15 years	30 years	
Down payment	10%	20%	
Loan fees and points	1%	1%	
Discount rate (nominal)	9%	5%	
Analysis Period	30 years		
Property tax rate	0.9%		

# Fuel Prices and Escalation Rates (AEO 2020; EIA Short Term Energy Outlook)

icilii Elicigy Oddook/				
	Price (2020\$)	<b>Escalation Rate</b>		
Electricity				
Summer	13.3 cents/kWh	2.3%		
Winter	12.9 cents/kWh			
Natural gas	10.26 \$/Mbtu	2.8%		
Liquid petroleum gas	21.62 \$/Mbtu	4.1%		
Oil	21.82 \$/Mbtu	3.3%		



# **Other Analysis Topics**

- Manufacturer markup was increased ~40% relative to the NOPR based on comments received from MHCC and MHI (from 1.67 in the NOPR to 2.30 in the SNOPR).
- Impacts on small businesses are analyzed under the regulatory flexibility analysis.
- Future shipments trends were estimated using AEO 2020 housing starts projections (at 0.3% growth rate). This AEO-based estimates form the primary shipments scenario.
  - DOE also performed a sensitivity analysis using the HUD suggested growth rate of 6.5%.
  - The impact of the sensitivity results in a net increase in energy savings and NPV.
- Future shipments trends also included price elasticity (at -0.48) based on a study by Marshall and Marsh.\* This estimate forms the primary shipments scenario.
  - DOE also performed a sensitivity analysis using the HUD suggested price elasticity of -2.4.
  - The impact of the sensitivity results in a net decrease in energy savings and NPV and more consumers being priced out due to higher elasticity.
- DOE did not receive any comments on floor insulation impact on the foundation and has not addressed it in the SNOPR.
  - DOE did receive multiple comments that the NOPR proposal that exterior floor insulation installed must maintain
    permanent contact with the underside of the rough floor decking could be harmful to the home. This is because the
    proposal could result in potential condensation on the surface of the wood, affecting the integrity of the flooring. In
    response, DOE has removed this proposal in the SNOPR.



# **Prescriptive Path for Current HUD Standard**

While the <u>HUD code establishes Uo requirements</u> for the entire building thermal envelope for each climate zone, the Working Group recommended corresponding prescriptive paths to meet the HUD Uo requirements, which are provided below.

	HUD Climate Zone		
	1	2	3
Wall Insulation (R-value)	R-11	R-11	R-13
Ceiling Insulation (R-value)	R-22	R-22	R-30
Floor Insulation (R-value)	R-22	R-19	R-22
Window ( <i>U</i> -factor)	1.08	0.5	0.35
Window (SHGC)	0.70	0.6	0.33
Domestic Hot Water Pipe Insulation (R-value)	Not Applicable		
Envelope Leakage Limit	Not Applicable		
Duct Leakage Limit (CFM25/100ft <sup>2</sup> CFA)	Not Applicable		



# **Prescriptive Path for Untiered Standard (2021 IECC)**

This standard incorporates energy efficiency measures from the 2016 NOPR Standard, updated to 2021 IECC.

	HUD Climate Zone		
	1	2	3
Wall Insulation (R-value)	R-13	R-20+5	R-20+5
Ceiling Insulation (R-value)	R-30	R-30	R-38
Floor Insulation (R-value)	R-13	R-19	R-30
Window ( <i>U</i> -factor)	0.32	0.30	0.30
Window (SHGC)	0.33	0.25	NR (0.25)
Domestic Hot Water Pipe Insulation (R-value)	R-3		
Envelope Leakage Limit	5		
Duct Leakage Limit (CFM25/100ft <sup>2</sup> CFA)	4		

