[6450-01-P]

DEPARTMENT OF ENERGY

10 CFR Part 460

[EERE-2009-BT-BC-0021]

RIN 1904-AG10

AGENCY: Office of Energy Efficiency and Renewable Energy, Department of Energy.

ACTION: Request for information.

SUMMARY: The U.S. Department of Energy (DOE or the Department) is issuing a request for information ("RFI") to solicit public input regarding certain aspects of its energy conservation standards for manufactured housing. The public input received is anticipated to help guide DOE's further refinement of certain aspects of its standards for manufactured housing, as well as the supporting technical analysis, including anticipated costs and benefits. It may also serve as the basis for restructuring the approach and framework for standards that would apply to manufactured housing. DOE also seeks any additional information from the industry and public which may further inform the agency's views and regulatory program.

DATES: Written comments and information are requested and will be accepted on or before **[INSERT DATE 90 DAYS AFTER DATE OF PUBLICATION IN THE *FEDERAL REGISTER*].**

ADDRESSES: Interested persons are encouraged to submit comments using the Federal eRulemaking Portal at *www.regulations.gov*. Follow the instructions for submitting comments. Alternatively, interested persons may submit comments, identified by docket number EERE-2009-BT-BC-0021, by any of the following methods:

1. *Federal eRulemaking Portal: www.regulations.gov.* Follow the instructions for submitting comments.
2. *Email: ManufacturedHousing2009BC0021@ee.doe.gov.* Include EERE-2009-BT-BC-0021 in the subject line of the message.
3. *Postal Mail*: Appliance and Equipment Standards Program, U.S. Department of Energy, Building Technologies Office, Mailstop EE-5B, 1000 Independence Avenue SW, Washington, DC 20585-0121. If possible, please submit all items on a compact disc (CD), in which case it is not necessary to include printed copies.
4. *Hand Delivery/Courier:* Appliance and Equipment Standards Program, U.S. Department of Energy, Building Technologies Office, 1000 Independence Avenue SW., Washington, DC, 20585-0121. Telephone: (202) 287-1445. If possible, please submit all items on a CD, in which case it is not necessary to include printed copies.

No telefacsimiles (faxes) will be accepted. For detailed instructions on submitting comments and additional information on the rulemaking process, see section III of this document.

Docket: The docket for this activity, which includes *Federal Register* notices, comments, and other supporting documents/materials, is available for review at *www.regulations.gov.* All documents in the docket are listed in the *www.regulations.gov* index. However, some documents listed in the index, such as those containing information that is exempt from public disclosure, may not be publicly available.

The docket web page can be found at *www.regulations.gov/docket?D=EERE-2009-BT-BC-0021*. The docket web page contains simple instructions on how to access all documents, including public comments, in the docket. See section III for information on how to submit comments through *www.regulations.gov*.

FOR FURTHER INFORMATION CONTACT:

Mr. Jeremy Williams, U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy, Building Technologies Office, EE-5B, 1000 Independence Avenue SW, Washington, DC 20585-0121. Telephone: (202) 287-1941. Email: *jeremy.williams@ee.doe.gov.*

Ms. Ani Esenyan, U.S. Department of Energy, Office of the General Counsel, GC-33, 1000 Independence Avenue SW, Washington, DC 20585-0121. Telephone: (202) 586-4798. Email: *ani.esenyan@hq.doe.gov.*

For further information on how to submit a comment or review other public comments and the docket, contact the Appliance and Equipment Standards Program staff at (202) 287-1445 or by email: *Manufactured_Housing@ee.doe.gov.*

SUPPLEMENTARY INFORMATION:

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I. Introduction

Manufactured housing comprises a housing category that consists of structures constructed in a factory, built on a permanent chassis, and transportable in one or more sections that are then erected on-site. *See* 24 CFR 3280.2. This type of housing has traditionally been regulated by the Department of Housing and Urban Development ("HUD"), with the purpose of reducing personal injuries, deaths, property damage, and insurance costs, and to improve the quality, durability, safety, and affordability of these homes. *See* 42 USC 5401(b). Consistent with its statutory authority, HUD administers a comprehensive regulatory framework to address a variety of aspects related to these structures, including certain elements related to their energy efficiency. *See*, *e.g*. 24 CFR 3280.507(a) (specifying thermal insulation requirements) and 24 CFR 3280.508(d) (detailing requirements related to the installation of high-efficiency heating and cooling equipment in manufactured homes). HUD's standards are preemptive nationwide and differ from standards developed under the auspices of (and published by) the International Code Council ("ICC"). The ICC standards, known as the International Energy Conservation Code ("IECC"), have been adopted by many state and local governments in establishing minimum design and construction requirements for the energy efficiency of traditional site-built residential and commercial buildings. Consistent with Federal law, DOE published a final rule in May 2022 establishing energy conservation standards for manufactured housing based on the IECC. *See* 87 FR 32728. DOE is publishing this RFI to seek input from the industry and general public on a variety of issues that the Department will review as it considers whether to amend its energy conservation standards for manufactured housing.

A. Authority and Background

Section 413 of the Energy Independence and Security Act of 2007, Public Law 110-140 (December 19, 2007) ("EISA") requires DOE to establish by regulation standards for energy

efficiency in manufactured housing. *See* 42 U.S.C. 17071(a)(1). Prior to establishing these regulations, DOE must—(1) provide manufacturers and other interested parties with notice and an opportunity for comment and (2) consult with the Secretary of HUD, who may seek further counsel from the Manufactured Housing Consensus Committee.[1] *See* 42 U.S.C. 17071(a)(2). These standards must generally be 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. A finding that standards based on the IECC are not cost effective or that standards more stringent than the IECC are cost effective would be based on the impact of the adoption of the IECC standards on the purchase price of manufactured housing and on total life-cycle construction and operating costs. *See* 42 U.S.C. 17071(b)(1). In establishing its standards, DOE may consider:

- The design and factory construction techniques of manufactured homes;
- The climate zones established in the U.S. Department of Housing and Urban Development's Manufactured Home Construction and Safety Standards ("the HUD Code") rather than the climate zones under the IECC; and
- Alternative practices that result in net estimated energy consumption equal to or less than the specific IECC standards. *See* 42 U.S.C. 17071(b)(2).

[1] HUD describes its Manufactured Housing Consensus Committee as "a statutory Federal Advisory Committee body charged with providing recommendations to the Secretary on the revision and interpretation of HUD's manufactured home construction and safety standards and related procedural and enforcement regulations. By regulation, HUD includes the MHCC in the process of revising the Manufactured Home Construction and Safety Standards, Procedural and Enforcement Regulations, Model Installation Standards, Installation Program Regulations, and Dispute Resolution Program regulations." *www.hud.gov/hud-partners/manufactured-home#3* (last accessed on August 4, 2025).

DOE is directed to update its standards not later than one year after any revision to the IECC.[2] (42 U.S.C. 17071(b)(3))

B. Rulemaking History

On May 31, 2022, DOE published a final rule to establish energy conservation standards for manufactured housing pursuant to the Energy Independence and Security Act of 2007 ("May 2022 Final Rule"). 87 FR 32728. These standards were based on the 2021 version of the International Energy Conservation Code ("IECC") and comments received during interagency consultation with the U.S. Department of Housing and Urban Development, as well as from stakeholders through a variety of opportunities for public input. The adopted standards provide a set of "tiered" standards based on size that would apply the 2021 IECC-based standards to manufactured homes, which was adjusted to account for the fact that the IECC was not written for manufactured housing, with the provision that single-section manufactured homes would be subject to less stringent building thermal envelope requirements compared to multi-section manufactured homes. The tiered approach adopted by DOE was to address cost concerns by limiting the incremental cost for lower tier (*i.e.*, single-section) homes. Throughout the rulemaking process that culminated in the May 2022 Final Rule, various stakeholders, including HUD, expressed concern about impact of efficiency standards on affordability, especially for lower-income households. DOE did not adopt any enforcement procedures in the May 2022 Final Rule and noted that such would be established through later action.

In the May 2022 Final Rule, DOE codified the energy conservation standards in a new part of the Code of Federal Regulations ("CFR") under 10 CFR part 460, subparts A, B, and C.

[2] The IECC is administered by the International Code Council (ICC) and typically published on a 3-year development and update cycle.

Subpart A presents generally the scope of the rule and provides definitions of key terms. Subpart B would establish new requirements for manufactured homes that relate to climate zones, the building thermal envelope, air sealing, and installation of insulation, based on certain provisions of the 2021 IECC. Subpart C would establish new requirements based on the 2021 IECC related to duct sealing, heating, ventilation, and air conditioning ("HVAC"); service hot water systems; mechanical ventilation fan efficacy; and heating and cooling equipment sizing.

In the May 2022 Final Rule, DOE adopted a compliance date such that the standards would apply to manufactured homes that are manufactured on or after one year following the publication date of the final rule in the *Federal Register*, which was May 31, 2023. In doing so, DOE noted its belief that many manufacturers already have experience complying with efficiency requirements similar to what DOE required in the May 2022 Final Rule. 87 FR 32728, 32759. DOE did not specify its approach for enforcement of the standards in the May 2022 Final Rule, and noted that manufacturers would be able to comply with the standards as they were issued. DOE noted in the May 2022 Final Rule that it may address compliance and enforcement issues and procedures in a future agency action (*see* 87 FR 32728, 32757-32758).

On February 14, 2023, the Manufactured Housing Institute and the Texas Manufactured Housing Association filed a lawsuit against DOE in the U.S. District Court for the Western District of Texas alleging that DOE violated the Administrative Procedure Act (APA) and the EISA in promulgating the May 2022 Final Rule. Among the allegations made by plaintiffs are that DOE (1) failed to consider all relevant costs, (2) acted arbitrarily and capriciously in setting a one-year compliance deadline, and (3) failed to consult with HUD about the final rule's energy standards. DOE has denied the plaintiffs' allegations, and the lawsuit remains pending.

On March 24, 2023, DOE published in the *Federal Register* a NOPR proposing to amend the compliance date for the manufactured housing energy conservation standards ("March 2023 NOPR"). 88 FR 17745. In that NOPR, DOE described the need to amend the compliance date for the manufactured housing standards, noting that it had not yet issued procedures for investigating and enforcing against noncompliance with the standards, and that a delay is necessary to ensure that DOE can receive and incorporate meaningful stakeholder feedback into its enforcement procedures prior to part 460's compliance date. Accordingly, DOE proposed to require compliance with the Tier 1 standards beginning 60 days after publication of its final enforcement procedures, and compliance with the Tier 2 standards beginning 180 days after publication of its final enforcement procedures.

On May 30, 2023, DOE published a final rule amending the compliance date for its manufactured housing standards delaying compliance until July 1, 2025, for Tier 2 homes, and until 60 days after issuance of enforcement procedures for Tier 1 homes ("March 2023 Final Rule"). 88 FR 34411.

On December 26, 2023, DOE published a notice of proposed rulemaking (NOPR) to establish enforcement procedures for its energy conservation standards for manufactured housing ("December 2023 NOPR"). 88 FR 88844. DOE did not propose specific test procedures or requirements for manufacturers to certify that their homes meet the energy conservation standards, but rather proposed a system by which the Department would determine compliance through review of manufacturer-provided records. The NOPR outlined DOE and manufacturer responsibilities, prohibited acts and penalties, investigation procedures, and civil enforcement procedures, including related penalties. In addition, via the NOPR, DOE concluded that the additional costs to manufacturers imposed by the proposed enforcement procedures would be

minimal, and would not alter DOE's assessment of the costs resulting from the standard published in the May 2022 Final Rule. DOE received comments on the December 2023 NOPR and proposed enforcement procedures but has not issued a final rule.

On April 24, 2025, DOE published a NOPR proposing to partially amend the compliance dates for manufactured housing standards ("April 2025 NOPR"). 90 FR 17230. Specifically, DOE proposed to require compliance with the Tier 2 standards in subparts B and C beginning 180 days after publication of its final enforcement procedures. DOE did not propose to amend the compliance date for Tier 1 homes as such homes will be subject to the standards in subparts B and C beginning 60 days after publication of DOE's final enforcement procedures. DOE noted that this proposal aligns with the proposal in the March 2023 NOPR.

On July 2, 2025, DOE published a final rule to amend the compliance date for its manufactured housing energy conservation standards ("July 2025 Final Rule"). 90 FR 28873. DOE's final rule adopted the NOPR proposal and as such the earlier Tier 2 compliance date was modified to set compliance 180 days after publication of final enforcement procedures. No change was made to the Tier 1 compliance date.

II. Request for Information

Since DOE published the May 2022 Final Rule, several changes have taken place that DOE now proposes to investigate, and through this RFI to ask for feedback from stakeholders. As noted previously, in 2023 DOE issued a NOPR to establish enforcement tools to accompany the May 2022 Final Rule's energy conservation standards. DOE is still reviewing comments on the enforcement NOPR, and manufacturers are not currently required to comply with the May 2022 Final Rule. Under EISA's requirement that DOE review IECC standards as they become available, DOE must now review the potential for standards that take into account the more

recent 2024 IECC standards[3]. Also of significant interest, since the May 2022 Final Rule was published, the United States has undergone a period of elevated inflation as well as a period in which many industries experienced mild to severe supply chain disruptions which exacerbated affordability concerns for many Americans, particularly in the housing sector. As a consequence of such changing background conditions, DOE is requesting feedback on the regulatory framework it has relied upon in developing standards for manufactured housing, including supporting technical analysis.

In developing the May 2022 Final Rule, DOE gave careful consideration to a variety of factors, including the "first costs" related to the purchase of manufactured homes. In the May 2022 Final Rule, DOE established a set of tiered energy conservation standards that DOE believed was respectful of the industry imperative to maintain the affordability of manufactured homes while at the same time meeting DOE's obligation under EISA to establish energy conservation standards based on the most current version of the IECC standards. In the following sections, DOE presents a series of issues on which it seeks input to aid in reviewing the technical and economic analyses underlying DOE's May 2022 Final Rule in light of the changing background conditions.

Additionally, DOE seeks stakeholder input on commencing efficiency standards rulemaking for manufactured homes at this time and welcomes comments on other issues relevant to the conduct of this process that may not specifically be identified in this document. For example, DOE is interested in understanding the timing necessary for industry to comply with the 2022 Final Rule.

[3] As of publication of this RFI, the 2024 IECC is the latest published standard and the 2027 IECC is under development.

DOE is also revisiting the 2022 Final Rule in light of E.O. 14192 "Unleashing Prosperity Through Deregulation," and as identified in the below sections, seeks stakeholder input on reducing regulatory burden of these regulations.

A. Recent Updates to the IECC

Under EISA, DOE is required to update energy conservation standards following any revision to the IECC. 45 USC 17071(b)(3). Since the IECC was updated in August 2024, DOE has a legislative requirement to review energy conservation standards for manufactured housing. Under EISA, DOE is required to consider the design and factory construction techniques, the IECC standards, and cost effectiveness given the impact on purchase price and on total life-cycle construction and operating costs. 45 USC 17071(b)(1); 45 USC 17071(b)(3)(2)

Because manufacturers are not yet required to comply with the 2022 Final Rule, the Department finds that the requirement to analyze the cost-effectiveness of the IECC 2024 standard presents a question as to the proper baseline for further technical analysis. At present, manufacturers are required to comply with existing HUD requirements related to the energy efficiency of manufactured homes. Typically, when DOE performs an energy conservation standard analysis, the existing standards provide the minimum efficiency level against which proposed efficiency requirements are analyzed.

Issue A-1: DOE seeks data and information regarding basing standards on the most recent version of the IECC; in particular, whether standards based on the 2024 IECC would or would not likely be cost effective or that standards more stringent than 2024 IECC would or would not be cost effective. In addition, comments should describe the basis for their perspective on compliance cost and other costs borne by consumers (e.g., layout of housing less attractive or

functional due to increase insultation), cost effectiveness, including a description of methodology or analytical assumptions.

Issue A-2: DOE seeks input on the appropriate baseline to use in conducting further technical analysis in support of an updated manufactured housing energy conservations standards rulemaking. We seek information on the best representation of the current state of energy efficiency in manufactured housing to characterize the baseline – e.g., the HUD standards, the 2022 Final Rule efficiency levels, or another efficiency level.

Issue A-3: While DOE typically considers existing standards to be the minimum baseline, DOE also typically takes into account any information that demonstrates current manufacturing practice results in a range of efficiencies available in the marketplace. For example, significant percentages of manufactured home shipments historically met the Energy Star criteria. Between 2020 and 2022, approximately 21 percent of buildings met the Energy Star criteria for manufactured homes, while in 2023 the fraction was 36 percent. DOE notes that in 2023 the Federal tax credits were increased from $1,000 to $2,500 for manufactured homes meeting Energy Star and certain researchers have postulated that the tax credit program influenced the 2023 results.[4] DOE seeks input to best assess appropriate baseline efficiency levels reflective of what is observed in shipments in the manufactured housing market. Specifically, DOE seeks input on fractions of manufactured homes with building envelopes constructed effectively at the current HUD requirements for their HUD region, fractions that would meet the lower Uo[5] envelope requirements under the EnergyStar 2.0 criteria, and fractions currently constructed at

[4] Source: Vermeer, Kim. 2024. *I'm HOME Manufactured Housing Industry Benchmark Report 2024.* Prepared by Urban Habitat Initiatives Inc for the Lincoln Institute of Land Policy. *https://tinyurl.com/mvw57ham.*

[5] U_o refers to the overall thermal transmittance represented by the coefficient of heat transmission (air-to-air) through the building thermal envelope equal to the time rate of heat flow per unit area of envelope with a unit temperature difference between the warm side and cold side air films (Btu/h × ft^2 × °F).

the 2022 final rule Uo levels to best assess appropriate baseline efficiency levels reflective of what is observed in shipments in the manufactured housing market. As part of this request, DOE requests input on the impact of the expected expiration of the Federal tax credit on the fraction of shipments that meet Energy Star criteria.

B. May 2022 Final Rule's Analytical Assumptions

The May 2022 Final Rule incorporated analytical assumptions to determine the minimum level of efficiency for which DOE seeks further stakeholder input through the current RFI, as described in the itemized paragraphs below. These assumptions spanned a variety of issues, such as: affordability; the use of HUD climate zones; the price elasticity value to use in DOE's calculation of potential shipment impacts; whether to include certification, compliance, and enforcement costs as part of DOE's analysis; the availability of windows that meet the U-value and Solar Heat Gain Coefficient (SHGC) and the availability of doors and insulation that meet U-values required by the 2022 Final Rule; and whether the tightening of a manufactured home's building envelope with regard to air leakage would impact indoor air quality by increasing the likelihood of trapping pollutants inside the building and other issues that are relevant.

Issue B-4: What analytical aspects related to DOE's May 2022 Final Rule should DOE consider re-examining as part of its ongoing consideration of energy efficiency standards for manufactured housing? This request for input encompasses whether DOE's analysis sufficiently addressed the cost-effectiveness of standards based on the then-current 2021 IECC when considering the code's impact on both the purchase price of manufactured housing and on total life-cycle construction and operating costs. *See* 42 U.S.C. 17071(b)(1). If changes are recommended, how should DOE reconsider how it addressed costs (even those that are hard to quantify) and the cost-effectiveness of the IECC criteria and what specific changes, if any,

should DOE make to its assumptions or analyses to better address this in any future analysis for manufactured housing? As part of this request, DOE encourages commenters to provide specific supplemental supporting data regarding any changes that commenters may suggest.

EISA explicitly stated that DOE could establish efficiency standards based on the climate zones used by HUD rather than the climate zones embodied in the IECC standards. 42 USC 17071(b)(2)(B). The 2022 May Final Rule utilized the HUD climate zones to reduce the complexities and burden faced by manufacturers, and to reduce the potential confusion faced by consumers if the energy standards were based on different climate zones than other HUD requirements. 87 FR 32728, 32761.

Issue B-5: DOE seeks comments on the appropriateness of using the HUD climate zones, and whether the use of the HUD climate zones continues to be appropriate.

In further researching the manufactured housing market, DOE has examined additional information from a variety of sources. Of note is information from the Urban Institute which released a report in 2023 that analyzed mortgage data from the Home Mortgage Disclosure Act database covering 2022 mortgage data.[6] The 2023 Urban Institute report detailed the characteristics of manufactured housing consumers and the market for manufactured home financing from 2022. Key findings from the report include:

- Manufactured homeowners tend to have lower incomes than their counterparts who own site-built homes;
    - homeowners with chattel[7] loans had median incomes of $60,000

[6] *See https://www.urban.org/research/publication/housing-finance-glance-monthly-chartbook-july-2023.*
[7] A "chattel" loan is a loan to buy movable personal property and can include manufactured homes, but also for example machinery or vehicles. Chattel loans hold the movable property in collateral as opposed to mortgages

    - homeowners with manufactured housing mortgage loans had median incomes of $65,000
    - homeowners of site-built homes had median incomes of $101,000
- Manufactured-housing purchasers used chattel loans in 42 percent of purchases requiring loans
- Personal property (chattel) loans included a significant fraction (25.3 percent) of loans in which the consumers also owned (purchased) the land
- Median loan amounts were:
    - Personal property (chattel) loans – $95,000
    - Real property (*i.e.*, mortgage) manufactured housing loans – $175,000
    - Site-built home loans – $305,000
- Median interest rates reported were 8.0 percent for chattel loans, 5.5 percent for manufactured home real property loans, and 5.0 percent for site-built home mortgages
- Denial rates among loan applications for chattel loans were 65.5 percent of applications, compared to 43 percent of manufactured home real property loan applications, and 10.4 percent of site-built home mortgage applications

This data suggest that manufactured housing purchasers face substantial constraints in receiving financing compared to traditional site-built home purchasers. In turn, these constraints may make purchasers of manufactured homes more price-sensitive to potential changes that would impact the costs to construct (and purchase) a manufactured home.

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which typically hold fixed buildings and the occupied land as collateral. Chattel loans for manufactured homes are commonly of shorter duration than mortgages and commonly accompanied by higher interest rates.

U.S. Census Bureau American Housing Survey data analyzed and referenced by the National Association of Home Builders (NAHB)[8] found that 36.6 percent of single-section manufactured home owners spend more than 30 percent of their income on housing, or in other words, 36.6 percent are considered to be *cost burdened*.[9] The percentage of multi-section homeowners that are cost burdened, at 28.4 percent, is roughly similar to the single-family homeowner group (27.6%).

Manufactured homeowners who finance their homes tend to pay higher interest rates than their site-built home counterparts. Chattel financing is typically offered to purchasers at a significantly higher interest rate than the rates offered to their site-built home counterparts. However, approximately one-quarter of manufactured homeowners with chattel loans own or are purchasing the land on which the manufactured home is sited and could potentially be eligible for mortgage financing but used a chattel loan. Relevant factors in the decision making include the willingness of lenders to make smaller personal property loans than mortgage lenders, the possibility that personal property lenders may be willing to loan money to people with lower credit scores than mortgage lenders, and the possibility the homeowner doesn't want to encumber the land with a lien. The Urban Institute report also noted there is a tradeoff between lower origination costs with significantly higher interest rates (chattel loans) and higher

[8] Koh, Catherine. 2025. "Manufactured Homes: An Alternative Means of Housing Supply." Published in National Association of Home Builders' Eye On Housing. *https://eyeonhousing.org/2025/04/manufactured-homes-an-alternative-means-of-housing-supply/#comments.*

[9] The 30% threshold dates back to dates back to 1981 when Congress set the cap in a change to the original value established in 1969 by the Brooke Amendment to National Housing Act. In essence it says any household paying more than 30% of total income on housing costs (rent, mortgage payments, property taxes and utilities) is cost burdened. While it is widely used it as a measure of whether a household lacks resources for other necessities of life after covering their monthly housing costs, it is more of a rule of thumb than a metric based on a strong, scientific analysis. The benchmark is used by the U.S. Department of Housing and Urban Development (HUD).

origination costs with significantly lower interest rates and greater consumer protections (mortgage).

Issue B-6: DOE acknowledges that interest rates change over time and expects the interest rates used in the 2022 Final Rule will change as more data becomes available. DOE seeks comments regarding the previous financial findings regarding the economic impact of energy conservation standards on the ability of purchasers to buy manufactured homes. In stakeholders' experiences, are these findings reasonably accurate, and are there other data that DOE should examine, or other factors that DOE should consider? In addition, are the total costs of ownership accurately reflected in the analysis? Assuming that these findings are reasonably accurate, what role, if any, should they play in shaping potential amended standards that DOE may ultimately adopt for manufactured housing and why? If these findings do not appear accurate, what data supports the discrepancy, what specific shortcomings are indicated, and what assumptions/changes should DOE apply when determining the stringency and structure of energy conservation standards for manufactured housing? DOE also seeks input on the advisability of using current interest rates versus longer historical averages. DOE also seeks input on the advisability of continuing to use 30-year analytic time horizon in the analysis or whether the analytic time horizon should reflect average ownership of manufactured housing.

C. Affordability

DOE's analysis for its May 2022 Final Rule considered the economic impacts of the proposed standards on individual manufactured home purchasers. DOE's 2022 Final Rule established separate minimum efficiency standards for single- and multi-section homes, and within each of these two home classes with requirements varying across three geographic regions.

Under the statutory provision requiring the Department to develop standards for manufactured housing, the May 2022 final standards were generally based on the then-current version of the IECC (*i.e*., the 2021 IECC). In the 2022 Final Rule, DOE found a set of standards based on the 2021 IECC to be cost effective. Because of the emphasis placed on affordability by stakeholders previously commenting on the rulemaking documents, the 2022 Final Rule placed an incremental cost ceiling of $750 on the changes made to the single section manufactured homes. This was roughly based on an amount that DOE's analysis of financing costs and energy benefits determined to result in a positive return on investment in the first year, across all HUD zones, for the average purchaser. While standards more stringent than those adopted by DOE for single-section homes may also have been life-cycle cost effective for the average purchaser, such stricter standards may not have met the $750 incremental cost ceiling used for Tier 1. While DOE's analysis focused on standards based on the 2021 IECC, it also considered the consequent impact on the purchase price of manufactured housing and on total life-cycle construction and operating costs. However, DOE recognizes the approach may not have explicitly considered all relevant factors regarding the potential impacts of the final standard. Consequently, in this RFI, DOE is seeking comments on a variety of issues related to these factors to help further inform the Department's views regarding the economic impacts related to its energy conservations standards for manufactured housing, including how they may impact the use of the IECC.

Issue C-7: In the 2022 Final Rule analyses DOE analyzed "packages" of efficiency changes that reflected the 2021 IECC requirements. For the Tier 1 standards, DOE analyzed individual energy efficiency options to identify a package of options that totaled less than $750 and that yielded a positive cash flow in year 1 taking into account the increases in first-year loan cost and the down payment and the reductions in first year energy costs. (See 2022 Final Rule

Technical Support Document, p. 6-3.) Further, in this analysis, DOE assumed the purchaser would use a chattel loan. DOE seeks comments on the appropriateness of this methodology for assessing affordability. Are there metrics DOE could use to assess the impact of standards on consumers other than the life-cycle cost analysis and the cash flow analysis? Are there other consumer impacts that the life-cycle cost and cash flow analysis should reflect, such as availability of other housing options using cross-price elasticities?

For Tier 2, DOE considered a package of energy efficiency options that mirror the 2021 IECC, with adjustments made for the practicalities of manufacturing and transporting and setting homes up on-site. For example, because of the need to join sections in order to perform an envelope air-sealing test, DOE, working with the Manufactured Housing Working Group[10], came up with an alternative requirement based on visual assessment. Minimum ceiling R-values from the IECC were reduced in consideration of factory construction techniques when compared to site-built homes. In the analysis of options, DOE found R-20+5 exterior wall insulation to not be cost effective and reduced that requirement to R-21. For Tier 2, DOE analyzed the life-cycle cost effectiveness of standards. DOE seeks input on the appropriateness of the methodologies used in the 2022 Final Rule, including both the use of life-cycle cost and the first-year positive cash flow analyses, for analyzing possible updates to the 2022 Final Rule.

Issue C-8: Manufactured housing owners tend to be lower-income compared to other homeowners and are also likely to finance their manufactured housing purchase using higher-rate chattel loans. As a result, the Department is particularly interested in specific comments, analysis, and data regarding the affordability of manufactured housing and how the requirements

[10] See *https://www.federalregister.gov/documents/2014/08/15/2014-19299/appliance-standards-and-rulemaking-federal-advisory-committee-asrac-manufactured-housing-working*.

adopted in the 2022 Final Rule for both Tier 1 and Tier 2 manufactured homes will likely affect affordability, and which manufactured home purchasers may be most impacted.

Issue C-9: In the 2022 Final Rule the Department took into account the impact of price sensitivity of manufactured home purchasers when estimating the shipments of products by applying an estimate of price elasticity to percentage changes in the up-front price of manufactured homes. Lenders and home purchasers often take into account costs and benefits beyond the simple up-front cost when making lending or purchasing decisions. including default risks and changes in the features of manufactured housing. The Department seeks input concerning whether there is a more comprehensive way to model lending behavior and purchasing behavior rather than simply first-cost, particularly when considering that DOE's assessment of the financing mechanisms typically relied upon and the energy benefits that accrue from energy efficiency standards.

Issue C-10: DOE has previously viewed "affordability" as a combination of up-front cost, which may price out some number of potential homeowners at time of purchase, as well as operating costs, which will affect all manufactured housing owners over a longer time horizon. HUD and prominent industry organizations generally define housing affordability in terms of a percentage of income.[11] The Department seeks comments that provide information on how to weigh these components in defining affordability, with consideration for economic factors such as income, and with a particular focus on affordability for lower-income consumers.

D. Other Analytical Issues

[11] *See https://archives.huduser.gov/portal/pdredge/pdr-edge-featd-article-081417.html.*

Issue D-11: The cost of efficiency improvements directly affects the affordability of any standard DOE might adopt. To avoid short-term cost fluctuations, DOE's engineering analyses supporting appliance efficiency rulemakings will commonly use 5-year averages in prices of materials such as structural steel that fluctuate with world markets. In doing so, the analyses smooth out some of the effects of transitory price shocks, without removing the shocks from the data. DOE seeks input on appropriate methods for establishing costs for major cost categories such as insulation, softwood lumber, window products, and other major components that may impact the cost effectiveness of energy conservation standards for manufactured housing. Certain stakeholders have also highlighted the impact of inflation and recent supply shortages on the construction and manufactured housing industry. Has cost inflation related to materials needed for manufactured housing eased? Are there residual supply chain shortages for materials needed to construct manufactured housing? Are changing tariff structures expected to impact costs or materials availability? How should DOE conduct sensitivity analysis incorporating different price scenarios systematically to offer better analysis?

Issue D-12: The Department also seeks comment on whether cost-effectiveness analyses should be performed over the expected life of manufactured homes, or over some other time period, for example that reflecting the average time period that the original owner of the home will live in the home and benefit from the efficiency improvements. Since any subsequent owners of the home will continue to receive the energy benefits for the entire life of the home, is it reasonable to model the economic benefits of the improvements to energy efficiency of the home over any lifetime less than the expected 30-year life of the home, and if so, what are the arguments for doing so? Or should DOE also analyze the consumer discounting of the future

decrease in energy consumption seen in used energy efficient goods such as cars and appliances? Is this a life-cycle cost question or is this an affordability question?

E. Other Issues

Issue E-13: EISA requires DOE to consult with the Secretary of HUD, who may seek input from the Manufactured Housing Consensus Committee (MHCC). In the prior rulemaking process, which eventually led to the 2022 Final Rule, DOE met with HUD on multiple occasions and attended and presented at MHCC meetings. DOE consulted with HUD on pathways to compliance and enforcement of the energy conservation standards toward the objective of aligning with HUD's current inspection and enforcement processes and reducing regulatory burden and duplication of effort. In addition, as part of the rulemaking process, DOE empaneled and took input from a Manufactured Housing Working Group. The rulemaking process itself also provides an additional avenue for consultation through which industry stakeholders and the general public can review rulemaking documents, supporting analysis, and provide input. Consultation with HUD also occurs during interagency clearance required by Executive Order 12866. DOE intends to continue consultation with HUD as it considers whether to amend its energy conservation standards for manufactured housing. Given HUD's historic and ongoing role in the regulation of manufactured housing generally, DOE seeks input on how DOE can best identify synergies with existing HUD processes and standards, while still satisfying DOE's statutory mandate to establish standards for energy efficiency in manufactured housing. How can DOE operationalize or amend this rule in a manner that reduces compliance burden on manufacturers?

Issue E-14: DOE published a NOPR in December 2023 to establish enforcement procedures for its energy conservation standards for manufactured housing. These procedures

were not included in the May 2022 final rule, where the Department established its standards, and were published separately via the later NOPR. However, while DOE received comments on the NOPR and proposed enforcement procedures, it never finalized such procedures by issuing a final rule. In considering whether to further amend its energy conservation standards for manufactured housing, should DOE more comprehensively incorporate enforcement procedures into updated standards or continue in separately issuing enforcement procedures? How might such enforcement standards leverage the enforcement program administered by HUD?

DOE encourages stakeholders to review and submit comments on the issues listed previously and on other issues that they believe warrant DOE's consideration in any potential future rulemaking on energy conservation standards for manufactured housing.

III. Submission of Comments

DOE invites all interested parties to submit in writing by the date listed in **DATES** section of this document, comments and information on matters addressed in this notice and on other matters relevant to DOE's consideration of energy conservation standards for manufactured housing.

Submitting comments via www.regulations.gov. The *www.regulations.gov* web page will require you to provide your name and contact information. Your contact information will not be publicly viewable except for your first and last names, organization name (if any), and submitter representative name (if any). If your comment is not processed properly because of technical difficulties, DOE will use this information to contact you. If DOE cannot read your comment due to technical difficulties and cannot contact you for clarification, DOE may not be able to consider your comment.

However, your contact information will be publicly viewable if you include it in the comment or in any documents attached to your comment. Any information that you do not want to be publicly viewable should not be included in your comment, nor in any document attached to your comment. If this instruction is followed, persons viewing comments will see only first and last names, organization names, correspondence containing comments, and any documents submitted with the comments.

Do not submit to *www.regulations.gov* information for which disclosure is restricted by statute, such as trade secrets and commercial or financial information (hereinafter referred to as Confidential Business Information ("CBI")). Comments submitted through *www.regulations.gov* cannot be claimed as CBI. Comments received through the website will waive any CBI claims for the information submitted. For information on submitting CBI, see the Confidential Business Information section.

DOE processes submissions made through *www.regulations.gov* before posting. Normally, comments will be posted within a few days of being submitted. However, if large volumes of comments are being processed simultaneously, your comment may not be viewable for up to several weeks. Please keep the comment tracking number that *www.regulations.gov* provides after you have successfully uploaded your comment.

Submitting comments via email, hand delivery, or postal mail. Comments and documents submitted via email, hand delivery, or mail also will be posted to *www.regulations.gov.* If you do not want your personal contact information to be publicly viewable, do not include it in your comments or any accompanying documents. Instead, provide your contact information on a cover letter. Include your first and last names, email address, telephone number, and optional

mailing address. The cover letter will not be publicly viewable as long as it does not include any comments.

Include contact information each time you submit comments, data, documents, and other information to DOE. If you submit via mail or hand delivery, please provide all items on a CD, if feasible. It is not necessary to submit printed copies. No facsimiles (faxes) will be accepted.

Comments, data, and other information submitted to DOE electronically should be provided in PDF (preferred), Microsoft Word or Excel, WordPerfect, or text (ASCII) file format. Provide documents that are not secured, written in English and free of any defects or viruses. Documents should not contain special characters or any form of encryption and, if possible, they should carry the electronic signature of the author.

*Campaign form letter*s. Please submit campaign form letters by the originating organization in batches of between 50 to 500 form letters per PDF or as one form letter with a list of supporters' names compiled into one or more PDFs. This reduces comment processing and posting time.

Confidential Business Information. Pursuant to 10 CFR 1004.11, any person submitting information that he or she believes to be confidential and exempt by law from public disclosure should submit via email, postal mail, or hand delivery two well-marked copies: One copy of the document marked confidential including all the information believed to be confidential, and one copy of the document marked “non-confidential” with the information believed to be confidential deleted. Submit these documents via email or on a CD, if feasible. DOE will make its own determination about the confidential status of the information and treat it according to its determination.

It is DOE's policy that all comments may be included in the public docket, without change and as received, including any personal information provided in the comments (except information deemed to be exempt from public disclosure).

DOE considers public participation to be a very important part of the process for developing energy conservation standards and related rulemaking activities. DOE actively encourages the participation and interaction of the public during the comment period in each stage of the rulemaking process. Interactions with and between members of the public provide a balanced discussion of the issues and assist DOE in the rulemaking process. Anyone who wishes to be added to the DOE mailing list to receive future notices and information about this process should contact the Appliance and Equipment Standards Program at Manufactured_Housing@ee.doe.gov.

IV. Approval of the Office of the Secretary

The Secretary of Energy has approved publication of this request for information.

Signing Authority

This document of the Department of Energy was signed on , by Louis Hrkman, Principal Deputy Assistant Secretary for Energy Efficiency and Renewable Energy, pursuant to delegated authority from the Secretary of Energy. That document with the original signature and date is maintained by DOE. For administrative purposes only, and in compliance with requirements of the Office of the Federal Register, the undersigned DOE Federal Register Liaison Officer has been authorized to sign and submit the document in electronic format for publication, as an official document of the Department of Energy. This

administrative process in no way alters the legal effect of this document upon publication in the *Federal Register*.

Signed in Washington, DC, on

LOUIS HRKMAN Digitally signed by LOUIS HRKMAN Date: 2025.08.28 14:45:30 -04'00'

Louis Hrkman
Principal Deputy Assistant Secretary for Energy Efficiency and Renewable Energy
U.S. Department of Energy