

**COMMENTS OF THE ATTORNEYS GENERAL OF NEW YORK, ILLINOIS, MAINE,
MINNESOTA, NEVADA, NEW JERSEY, NEW MEXICO, OREGON, VERMONT,
WASHINGTON, THE COMMONWEALTH OF MASSACHUSETTS,
AND THE CITY OF NEW YORK**

November 24, 2021

Submitted via e-mail:

Manufactured_Housing@ee.doe.gov

Office of Energy Efficiency and Renewable Energy
Building Technologies Program
U.S. Department of Energy

**Re: Supplemental Notice of Proposed Rulemaking: Energy Conservation
Standards for Manufactured Housing
Docket No. EERE-2009-BT-STD-0021
RIN 1904-AC11**

The undersigned state attorneys general and local government offices submit these comments in response to the Department of Energy’s (DOE) supplemental notice of proposed rulemaking to establish energy conservation standards for manufactured housing pursuant to the Energy Independence and Security Act of 2007 (EISA), Pub. L. 110-140, 42 U.S.C. § 17071. *See* 86 Fed. Reg. 47,744 (Aug. 26, 2021); 86 Fed. Reg. 59,042 (Oct. 26, 2021). As governmental entities charged with reducing the economic costs and negative environmental impacts of energy production and use, including emissions of pollutants that contribute to climate change, we support DOE’s proposal to establish “un-tiered” efficiency standards for manufactured homes based on the 2021 International Energy Conservation Code (IECC), a consensus-based model energy code developed by the International Code Council (ICC), that sets minimum energy efficiency standards for residential and commercial buildings through a combination of prescriptive and performance related requirements. ICC IECC-2021, available at <https://codes.iccsafe.org/content/IECC2021P1>. We believe this “un-tiered” approach would both maximize the overall economic and environmental benefits of prescribing manufactured housing standards under EISA and further our states’ goals of ensuring that low-income households, which are often located in energy and/or environmental justice communities, have an opportunity to realize the benefits of such standards.

Manufactured housing represents approximately six percent of all homes in the United States. Due to their low purchase price relative to site-built homes, manufactured homes serve as an affordable housing option, particularly for lower-income families. However, manufactured homes often have higher energy costs per square foot than site-built or modular homes. Establishing improved energy efficiency standards for manufactured homes therefore serves to

reduce energy use and provide long-term energy affordability for low-income new home buyers and renters. *See* 86 Fed. Reg. 47,754-55.

According to DOE’s analysis, IECC-based efficiency improvements to manufactured housing are affordable and cost-effective, potentially saving households billions of dollars in energy costs as well as avoiding costly environmental harms associated with greenhouse gas emissions. *See* 86 Fed. Reg. 59,042, Table IV.11 (National Average Per-Home Cost Savings) (*Id.* at 59,050); Table VII.3 (Net Present Value of Consumer Benefits for Manufactured Homes Purchased 2023-2052 With a 30-Year Lifetime at a 3% Discount Rate) (*Id.* at 59,061); Table VII.4 (Net Present Value of Monetized Benefits from GHG and Emissions Reductions) (*Id.*). Given these significant economic and environmental benefits that will result from IECC-based efficiency improvements to manufactured housing, DOE’s final standards for manufactured homes should require such efficiency improvements without regard to a home’s retail list price or size. Moreover, because the IECC imposes a requirement for “additional energy efficiency” beyond design-based improvements (*see* 2021 IECC, R401.2.5), DOE’s final standards should also identify “package options” that manufacturers may include to further improve home energy efficiency.

We therefore urge DOE to prescribe the requirements set forth in DOE’s “un-tiered” proposal, including a requirement that manufacturers provide additional energy saving features such as high-efficiency appliances or heating and cooling systems using an ENERGY STAR®-certified heat pump. By requiring new manufactured homes to be built with these cost-effective energy efficiency improvements, DOE can help to ensure that manufactured homes -- an important housing option for lower income or price-constrained home buyers and renters -- are both affordable to buy and affordable to live in.

Background

Manufactured housing is subject to regulation by the U.S. Department of Housing and Urban Development’s (HUD) Manufactured Home Construction and Safety Standards (HUD Code), 42 U.S.C. § 5403(g); 24 C.F.R. Part 3280, which were last updated in 1994. Unlike conventional, site-built homes, manufactured homes are required to be built on a permanent chassis in a factory and then transported to their intended site. Although sometimes referred to as “mobile homes,” manufactured homes typically remain in the same location over their lifespan. More than 20 million Americans live in manufactured homes, and nearly 10% of all new homes built today are manufactured homes. *See* Manufactured Housing Institute, “2020 Manufactured Housing Facts” (May 2020), available at <https://www.manufacturedhousing.org/wp-content/uploads/2020/07/2020-MHI-Quick-Facts-updated-05-2020.pdf>.

Census data indicate that the median annual income of families living in manufactured homes is slightly above \$26,000. *See* 86 Fed. Reg. 47,757. The median net worth of these families is \$26,000, equivalent to one quarter of the median net worth of households in site-built homes. Despite a manufactured home’s relatively low purchase price, however, the average energy cost per square foot is 70% higher in a manufactured home than in an average single-

family, site-built home. Additionally, many manufactured home buyers are weighed down with high-interest chattel loan mortgages. Because low income households' "energy burden," sometimes expressed as a percentage of gross household income spent on energy costs, can be three times higher than that of other households (*see* https://www.energy.gov/sites/prod/files/2019/01/f58/WIP-Energy-Burden_final.pdf), occupants of manufactured housing bear some of the highest energy burdens in the nation.

EISA

In 2007, Congress recognized the need to increase the efficiency of manufactured homes and directed DOE to develop energy efficiency standards, in consultation with HUD. EISA § 413, 42 U.S.C. § 17071(a)(1). Section 413 of EISA requires DOE to establish the standards based on the most recent version of the IECC unless DOE determines, based on IECC requirement impacts on manufactured housing purchase price and total lifecycle construction and operating cost, that doing so would not be cost-effective or that a more stringent standard would be more effective. 42 U.S.C. § 17071(b)(1). In developing the standards, DOE may take into consideration the design and factory construction techniques of manufactured housing, as well as the climate/insulation zones established by HUD. 42 U.S.C. §§ 17071(b)(2)(A)-(B). EISA also permits DOE to provide for alternative practices that result in home energy use equal to or less than that associated with compliance with the specific energy conservation standards. 42 U.S.C. § 17071(b)(2)(C).

DOE Rulemaking

In 2016, DOE issued proposed energy efficiency standards which would apply to the design and construction of manufactured homes. *See* 81 Fed. Reg. 39,756 (June 17, 2016). The proposal reflected the recommendations of the negotiated rulemaking manufactured housing working group. However, in 2018, based on comments received from HUD, industry and other stakeholders regarding increased compliance/construction costs and the impact on manufactured home affordability, DOE agreed to consider potential alternatives to the 2016 proposal. *See* 83 Fed. Reg. 38,073 (Aug. 3, 2018).

DOE's August 26, 2021 supplemental notice of proposed rulemaking presents an updated proposal intended to improve manufactured home energy efficiency while preserving affordability for new home buyers. In that notice, DOE describes two potential approaches: a "tiered" and an "un-tiered" approach, both of which provide for prescriptive and alternate pathways to compliance. 86 Fed. Reg. 47,746.

The first approach involves a "tiered" energy efficiency standard based on the 2021 IECC wherein a subset of the energy conservation standards would be less stringent for less expensive homes. Under the tiered approach, two sets of standards (Tier 1 and Tier 2) would be established under a new 10 C.F.R. Part 460, subpart B. Tier 1 standards would apply to manufactured homes with a manufacturer's retail list price of \$55,000 or less, and incorporate certain IECC-based building thermal envelope measures that DOE determined would not increase the home's purchase price by more than \$750. Tier 2 standards would apply to manufactured homes with a retail list price above \$55,000 and incorporate all relevant building thermal envelope measures

specified in the IECC. The second approach is an “un-tiered” approach, wherein all manufactured homes would be subject to all of the Tier 2 standards. Compliance with a new 10 C.F.R. Part 460, subpart C regarding duct systems, thermostats and controls, service hot water, mechanical ventilation fan efficacy, and equipment sizing would be required under both the “tiered” and “un-tiered” approaches. *Id.*

DOE’s October 26, 2021 notice of data availability provides updated data and analysis, including 2020/21 data on sales, shipments and financing of manufactured homes. Among other things, the notice presents a new retail list price threshold of \$63,000 for Tier 1 standards, an alternate manufactured home size-based tiering system (*i.e.*, single-section vs. multi-section), and reduced insulation requirements for Tier 2 homes in warmer climates. 86 Fed. Reg. 59,043.

DOE should adopt standards based on the 2021 IECC and make them applicable to all manufactured homes, regardless of home cost or size.

A 2021 IECC-based efficiency standard would be cost-effective.

As DOE’s analysis shows, a manufactured housing standard based on the 2021 IECC would be cost-effective. Efficiency improvements in accordance with DOE’s proposed requirements and stringency levels would save manufactured home owners and occupants thousands of dollars over the 30+ year life of the homes. *See* 86 Fed. Reg. 59,048, Table IV.5 (Average Manufactured Home LCC Savings (30 Years) Under Un-Tiered Standard by Climate Zone). While DOE’s 10-year life cycle cost analyses focus on incremental costs borne by the initial home purchaser, DOE’s 30-year lifecycle cost analyses more accurately reflect the proposed standards’ benefits: hundreds of dollars in annual energy cost savings for original buyers as well as subsequent home occupants. *See* Table IV.11. According to DOE, the net present value of the proposed rule’s potential consumer benefits is \$3.5 to 6.4 billion. *See* 86 Fed. Reg. 59,060-61, Table VII.3.

The tiered approach would create a double standard that will perpetuate persistent poverty and inequality.

Under its potential tiered approach, DOE used a \$750 incremental cost threshold to determine the energy efficiency measures and stringency combinations for the thermal envelope (exterior floor, wall, ceiling, and windows) that would apply to homes priced under \$55,000. *See* 86 Fed. Reg. 47,762, 47,771-2, Table II.7. If adopted, this approach would have the effect of creating a class of less-efficient, lower cost/single-section homes. Because lower income, price-constrained consumers are more likely to purchase lower priced/single-section homes, these consumers, who can least afford it, will be left with higher energy costs.

Nationally, low-income households spend a higher portion of their income on home energy costs than any other income group, spending on average three times more of their income on energy than higher income households. *See* Oak Ridge National Lab, “Low-Income Energy Affordability: Conclusions from a Literature Review” (ORNL/TM-2019/1150) (March 2020) at 9, available at <https://info.ornl.gov/sites/publications/Files/Pub124723.pdf>. The pressure of high

energy burdens, combined with the unpredictability of energy costs, often lead low-income households to forego other essential goods and services like food, medical care, and telecommunications to pay energy bills. Such trade-offs can trap families in a persistent cycle of poverty. *Id.* at 14.

Studies confirm that energy efficient homes not only reduce household utility bills, they also improve residents' physical and mental well-being. *Id.* at 50-51. An efficient home provides both comfort and resilience against extreme weather and outdoor conditions. For example, a tighter building envelope eliminates drafts and helps to prevent problems such as condensation and mold that can lead to building deterioration or contribute to illness (*i.e.*, asthma). Efficiency also eases the mental stress and anxiety associated with energy insecurity by reducing household energy burdens. Equity dictates that the many benefits of increased energy efficiency be extended to all occupants of manufactured homes, not just those who can afford to buy a higher-priced or multi-section home. Indeed, doing so would serve to fulfill the current administration's commitment to environmental justice and to address the disproportionate health, environmental, economic, and climate impacts on disadvantaged communities. Exec. Order No. 14,008, 86 Fed. Reg. 7619 (Jan. 27, 2021).

Moreover, a tiered approach is simply inconsistent with the IECC. As a uniform model code, the IECC's efficiency requirements are not based on a building's cost or size. Were DOE to adopt a tiered approach, it would do so in violation of 42 U.S.C. § 17071(b)(1), which provides that DOE's standards for manufactured housing "shall be based on" the IECC.

With adoption of the un-tiered approach, manufactured homes will be more efficient, yet remain affordable, even for low income consumers.

Requiring all manufactured homes to be built to the same level of efficiency (appropriate to their climate zone) would not make the homes out of reach to low-income buyers. To the contrary, doing so would ensure long-term affordability, *i.e.*, manufactured housing that is affordable to purchase and to live in. Indeed, analyses performed by Next Step, a member of the federal advisory Manufactured Housing Consensus Committee with expertise in affordable housing, confirm that despite potential increases in purchase price due to incremental construction costs associated with improved efficiency requirements, a manufactured home built to DOE's proposed IECC-based standards would remain affordable to even the most price-sensitive consumers due to the availability of federal and state tax incentives, and loan and down-payment assistance programs to assist low income home buyers. *See* Next Step, "Manufactured Housing Consensus Committee Affordability Presentation" (Oct. 20, 2021); https://www.hud.gov/program_offices/housing/rmra/mhs/cc1. Notably, HUD announced earlier this month revised policies to expand financing opportunities for manufactured homes. *See* HUD Federal Home Administration, "Federal Housing Administration Publishes Revised Title I Policies to Further Future Financing of Manufactured Homes" (Nov. 9, 2021) available at https://www.hud.gov/press/press_releases_media_advisories/HUD_No_21_183.

DOE's own analysis shows that an un-tiered, across-the-board application of the more energy efficient Tier 2 standards would increase the national average purchase price of homes by 5-7%,

or approximately \$4,000-5,000. 86 Fed. Reg. 59,047, Table IV.2 (Average Manufactured Housing Purchase Price (and Percentage) Increases Under Untiered Standard). DOE's analysis also shows that the national average simple payback period for its un-tiered proposal is a little over a decade. *Id.* at 59,050, Table IV.9 (Average Manufactured Home Simple Payback Period Under the Untiered Standard by Climate Zone). Given that the median duration of homeownership in the United States is 13 years, and nearly 40% of all manufactured home owners do not expect to ever sell their homes (*see* NextStep, Affordability Presentation at 6), heightened efficiency offers purchasers significant savings well after initial up-front incremental costs such as increased purchase price or finance costs have been recovered. For example, an un-tiered standard would provide a single-section homeowner annual utility bill savings of \$354, with a net savings of \$1,733 over the home's 30 year estimated lifetime. Multi-section homeowners would enjoy even greater savings: \$496 annually in reduced energy costs, with net savings of \$2,585 over 30 years. *Id.*, Table IV.11. And for governmental entities, efficient manufactured housing can reduce the need for government-funded weatherization and heat assistance programs.

DOE should build on its un-tiered proposal and include a requirement for additional energy savings.

DOE's un-tiered proposal is a significant improvement over the current HUD Code. However, DOE should adopt a more stringent set of requirements to fully comply with EISA. In EISA, Congress directed DOE to develop standards based on the IECC. Notably, the IECC requires that manufacturers provide "additional energy efficiency" – achieved through options packages – on top of savings resulting from building design features. For example, IECC R401.2.5.1 requires that a prescriptive compliance approach (compliance with R401-404) or a total building performance compliance approach must include at least one of the "additional efficiency package options" described in R408.2. The IECC's R408.2 sets forth options for: enhanced thermal envelope performance; more efficient heating, ventilation and air conditioning equipment performance; reduced energy use in service water heating; more efficient duct thermal distribution; and improved air sealing and ventilation.

Notably, neither DOE's "tiered" nor "un-tiered" proposal requires manufacturers to provide additional energy savings through efficiency package options such as those required by IECC R401.2.5.1. To ensure compliance with EISA, DOE's final standards should include such a requirement. The standards could specify, for example, that ENERGY STAR®-certified appliances or equipment such as an electric heat pump-based heating/cooling system may be used to provide additional energy savings required under the IECC. We note that highly efficient electric heat pumps provide the added benefit of improved indoor air quality and reduced greenhouse gas emissions as compared to gas-fired heat sources.

Conclusion

DOE efficiency standards for manufactured housing are now over a decade past due. We urge DOE to promptly adopt a final standard ensuring that all manufactured homes incorporate the cost-effective efficiency improvements of the IECC as required by statute.

Respectfully submitted,

FOR THE STATE OF NEW YORK

LETITIA JAMES
Attorney General

/s/ Lisa S. Kwong
LISA S. KWONG
TIMOTHY HOFFMAN
Assistant Attorneys General
MICHAEL J. MYERS
Senior Counsel
Office of the Attorney General
Environmental Protection Bureau
The Capitol
Albany, NY 12224
Tel: 518-776-2422
Email: Lisa.Kwong@ag.ny.gov

FOR THE STATE OF ILLINOIS

KWAME RAOUL
Attorney general

/s/ Jason E. James
JASON E. JAMES
Assistant Attorney General
MATTHEW J. DUNN
Chief, Environmental Enf./
Asbestos Litigation Div.
Office of the Attorney General
Environmental Bureau
69 W. Washington St., 18th Floor
Chicago, IL 60602
Tel: (312) 814-0660
Email: Jason.james@ilag.gov

FOR THE STATE OF MAINE

AARON M. FREY
Attorney General

/s/ Katherine E. Tierney
KATHERINE E. TIERNEY
Assistant Attorney General
6 State House Station
Augusta, ME 04333
Tel: (207) 626-8897
Email: Katherine.tierney@maine.gov

FOR THE STATE OF MINNESOTA

KEITH ELLISON
Attorney General

/s/ Leigh Currie
LEIGH CURRIE
Special Assistant Attorney General
445 Minnesota Street, Suite 900
St. Paul, Minnesota 55101-2127
Tel: (651) 757-1291
Email: Leigh.Currie@ag.state.mn.us

FOR THE STATE OF NEW JERSEY

ANDREW BRUCK
Acting Attorney General

/s/ Willis Doerr

WILLIS DOERR
Deputy Attorney General
25 Market Street
P.O. Box 093
Trenton, NJ 08625
Tel: (609) 376-2745
Email: willis.doerr@law.njoag.gov

FOR THE STATE OF NEVADA

AARON D. FORD
Attorney General

/s/ Heidi Parry Stern

HEIDI PARRY STERN
Solicitor General
Office of the Nevada Attorney General
555 E. Washington Ave., Ste. 3900
Las Vegas, NV 89101
Tel: (702) 486-3594
Email: HStern@ag.nv.gov

FOR THE STATE OF NEW MEXICO

HECTOR H. BALDERAS
Attorney General

/s/ William G. Grantham

WILLIAM G. GRANTHAM
Assistant Attorney General
P.O. Drawer 1508
Santa Fe, NM 87504
Tel: (505) 717-3520
Email: wgrantham@nmag.gov

FOR THE STATE OF OREGON

ELLEN F. ROSENBLUM
Attorney General

/s/ Steve Novick

STEVE NOVICK
Special Assistant Attorney General
Natural Resources Section
PAUL A. GARRAHAN
Attorney-in-Charge
Oregon Department of Justice
1162 Court Street NE
Salem, OR 97301
Tel: (503) 947-4590
Email: Steve.Novick@doj.state.or.us

FOR THE STATE OF VERMONT

THOMAS J. DONOVAN, JR.
Attorney General

/s/ Laura B. Murphy

LAURA B. MURPHY
Assistant Attorney General
Environmental Protection Division
Vermont Attorney General's Office
109 State Street
Montpelier, VT 05609
Tel: (802) 828-3186
Email: laura.murphy@vermont.gov

FOR THE STATE OF WASHINGTON

ROBERT W. FERGUSON
Attorney General

/s/ Stephen Scheele

STEPHEN SCHEELE
Assistant Attorney General
Washington State Attorney General's Office
P.O. Box 40109
Olympia, Washington 98504
(360) 586-4990
Email: Steve.Scheele@atg.wa.gov

FOR THE CITY OF NEW YORK

GEORGIA M. PESTANA
Corporation Counsel

/s/ Hilary Meltzer

Hilary Meltzer
Chief, Environmental Law Division
New York City Law Department
100 Church Street
New York, NY 10007
Tel: (212) 356-2070
Email: hmeltzer@law.nyc.gov

FOR THE COMMONWEALTH OF
MASSACHUSETTS

MAURA HEALEY
Attorney General

/s/ I. Andrew Goldberg

I. ANDREW GOLDBERG
Assistant Attorney General
Environmental Protection Division
ASHLEY GAGNON
Assistant Attorney General
Energy and Telecommunications Division
Office of the Attorney General
One Ashburton Place, 18th Floor
Boston, Massachusetts 02108
Tel: (617) 963-2429
Email: andy.goldberg@mass.gov