



DEPARTMENT OF ENERGY

Record of Decision for the Final Environmental Impact Statement for Proposed Energy Conservation Standards for Manufactured Housing (DOE/EIS–0550)

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

ACTION: Record of decision.

SUMMARY: The U.S. Department of Energy (“DOE”) has determined that it will establish energy conservation standards for manufactured housing based on the 2021 International Energy Conservation Code (“IECC”) using a tiered approach based on the size of the manufactured home, as described in Alternative B2 in the Final Environmental Impact Statement for Proposed Energy Conservation Standards for Manufactured Housing (DOE/EIS–0550). This Record of Decision (“ROD”) was prepared in accordance with the requirements of the National Environmental Policy Act (“NEPA”), Council on Environmental Quality (“CEQ”) regulations for implementing NEPA, and DOE NEPA regulations.

ADDRESSES: The final EIS, this ROD, and other EIS documents are available on the Project website at: <https://ecs-mh.evs.anl.gov> and on *Energy.gov* at: www.energy.gov/node/4810038.

FOR FURTHER INFORMATION CONTACT: For additional information on the EIS process or this ROD, please contact Kristin Kerwin at the Department of Energy – Golden Field Office, 15013 Denver West Parkway Golden, Colorado 80401, email: DOE_EIS_MANUFACTURED_HOUSING@ee.doe.gov, (240) 562-1800. For general information on the DOE NEPA review process, please contact Brian Costner, Office of NEPA Policy and Compliance, GC–54, U.S. Department of Energy, 1000 Independence Avenue SW, Washington, DC 20585–0119, email: AskNEPA@hq.doe.gov, telephone (202) 586–4600 or (800) 472–2756, facsimile (202) 586–7031.

SUPPLEMENTARY INFORMATION:

Background

DOE is obligated to establish energy conservation standards for manufactured housing, as directed by Section 413 of the Energy Independence and Security Act of 2007 (“EISA”). (42 U.S.C. 17071) EISA directs DOE to base these standards on the most recent version of the IECC and any supplements to that document, except where DOE finds that the IECC is not cost effective or where a more stringent standard would be more cost effective based on the impact of the IECC on the purchase price of manufactured housing and on total lifecycle construction and operating costs. In accordance with Section 413 of EISA, DOE is establishing energy conservation standards for manufactured housing in a final rulemaking published elsewhere in this issue of the *Federal Register*. To inform the proposed rulemaking, DOE prepared an EIS pursuant to NEPA, the CEQ NEPA implementing regulations (40 CFR parts 1500–1508), and DOE’s procedures for implementing NEPA (10 CFR part 1021).

Purpose and Need for Agency Action

In accordance with EISA, DOE will establish energy conservation standards for manufactured housing that are based on the 2021 IECC. In fulfilling its statutory mandate to establish energy conservation standards, the standards will also:

- Reduce national energy consumption,
- Reduce energy costs for owners of manufactured homes,
- Reduce emissions of outdoor pollutants associated with electricity production,
- Reduce emissions of greenhouse gases (“GHGs”) associated with electricity production that may lead to climate change, and
- Protect public health and safety related to energy efficiency.

DOE's Proposed Action and Alternatives

DOE considered three approaches for establishing the energy conservation standards for manufactured housing. The final EIS refers to each approach as an action alternative.

The alternatives were informed by public comments on the scope of the EIS and on the draft EIS, and by comments on DOE's 2016 notice of proposed rulemaking ("NOPR") 81 FR 39756, 2016 draft environmental assessment, 2021 supplemental notice of proposed rulemaking ("SNOPR") 86 FR 47744, and subsequent 2021 notice of data availability ("NODA") 86 FR 59042, as well as coordination and consultation with the U.S.

Department of Housing and Urban Development ("HUD"). In accordance with NEPA, DOE also considered the alternative of taking no action, which serves as a baseline against which potential consequences of the action alternatives can be compared. Thus, four alternatives (referred to as A, B, C, and D) are evaluated in detail in the EIS.

Under Alternative A, the proposed standards for energy conservation would be tiered (including "Tier 1" and "Tier 2" standards) based on a manufacturer's retail list price of \$63,000. Within Alternative A, two detailed alternatives (A1 and A2) were analyzed.

Under Alternative A1, Tier 1 standards would apply to homes with a retail list price of \$63,000 or less, with requirements based on the 2021 IECC, but with less stringent building thermal envelope requirements that would correspond to an incremental increase in purchase price of less than \$750. Tier 2 standards would apply to homes with a manufacturer's retail list price above \$63,000 and would be the same as the Tier 1 requirements, but with more stringent building thermal envelope requirements similar to those of the 2021 IECC. Alternative A2, is the same as Alternative A1 except it would include relaxed insulation requirements for Tier 2 manufactured houses in certain climate zones.

Under Alternative B, the proposed standards for energy conservation would be tiered (including “Tier 1” and “Tier 2” standards) based on the size of the manufactured home. Similar to Alternative A, two detailed alternatives were analyzed within Alternative B (B1 and B2). For Alternative B1, the Tier 1 standards would apply to single-section manufactured homes with requirements based on the 2021 IECC, and, as with Alternative A, the building thermal envelope requirements would correspond to an incremental purchase price increase of less than \$750. Tier 2 standards would apply to multi-section manufactured homes and would be the same as the Tier 1 requirements but with more stringent building thermal envelope requirements similar to those of the 2021 IECC. The building thermal envelope requirements for Alternative B1 are the same as those identified for Alternative A1. Alternative B2 is the same as Alternative B1 except it would include relaxed insulation requirements for Tier 2 manufactured homes in certain climate zones.

Alternative C represents an untiered approach to establishing energy conservation standards. Under this alternative, the proposed standards based on the 2021 IECC would apply to all manufactured homes, without considering the manufacturer’s retail list price or size or less stringent building thermal envelope requirements to address affordability concerns. As with Alternatives A and B, two detailed alternatives were analyzed within Alternative C (C1 and C2). Under Alternative C1, the building thermal envelope requirements would be the same as those identified for Tier 2 in Alternative A and Alternative B. Alternative C2 is the same as C1 except it would include relaxed insulation requirements for all manufactured houses in certain climate zones.

Alternative D represents the no action alternative. Under this alternative, DOE would not establish energy conservation standards for manufactured housing, and manufacturers would continue to follow the requirements in the existing HUD Code.

DOE considered, but did not analyze in detail, several potential alternatives, including alternatives suggested in comments received during the scoping process for this EIS and in response to the NOPR, SNOBR, NODA, and draft EIS. These alternatives fall within four themes: (1) the mechanism for implementing standards; (2) the basis for the standards, (3) the structure of the standards, and (4) other efficiency requirements. The EIS, in section 2.5, describes why these alternatives were not analyzed in detail.

As presented in the final EIS, Alternatives A, B, and C would result in:

- Conservation of energy,
- Avoidance of GHGs and other emissions (reducing impacts to climate change and outdoor air quality),
- Better indoor protection from outdoor air pollutants,
- Higher indoor air concentrations of pollutants emitted indoors, and
- National cost savings.

DOE did not have a preferred alternative at the time of the publication of the draft EIS.

In the final EIS, DOE identified the preferred alternative as the untiered alternative with relaxed insulation (Alternative C2).

Environmentally Preferable Alternatives

DOE considers both Alternatives B and C to be environmentally preferable. There are minor tradeoffs between Alternatives B and C relative to which is more environmentally preferable over different time periods. DOE considers the untiered approach (Alternative C) to be environmentally preferable as it would result in the most energy savings and emissions reductions and would provide the same benefits to all residents of manufactured homes. Alternative C, however, has a somewhat greater socioeconomic and environmental justice impacts associated with first cost (home purchase) and a longer

payback period than the Tier 1 homes in Alternative B. DOE considers Alternative B to be environmentally preferable as it addresses the socioeconomic and environmental justice impacts associated with the upfront cost and shortens the payback period (for Tier 1 homes) by only including components that would increase the incremental purchase price by less than \$750.

Public Involvement

The Notice of Intent (“NOI”) to prepare an EIS was published in the *Federal Register* on July 7, 2021, beginning the scoping process that extended through August 6, 2021. 86 FR 35773. The NOI invited public participation in the EIS scoping process and solicited public comments on the scope and content of the EIS. DOE solicited comments from Federal, State, and local agencies; tribal governments; other organizations and the public. In July 2021, DOE hosted two online public scoping meetings to provide the public an opportunity to comment on the scope of the EIS and ask questions about the EIS process. DOE received oral and written comments from 17 organizations and two individuals. DOE’s scoping process and public involvement along with a summary of the scoping comments received, are summarized in Appendix A of the final EIS.

The Notice of Availability (“NOA”) for the draft EIS was published in the *Federal Register* on January 14, 2022, and comments on the draft EIS were invited for 45-days (through February 28, 2022). 87 FR 2430. Two online public meetings were held in January 2022. DOE received 24 oral and written comment submittals on the draft EIS from organizations across 13 states and the District of Columbia. Appendix C of the final EIS provides a summary of the comments received and describes how the final EIS reflects the comments received on the draft EIS.

Decision

The agency has considered all the alternatives, information, analyses, and objections submitted by State, Tribal, and local governments and public commenters for consideration by DOE in developing the EIS. Further, informed by the analyses and environmental impacts documented in the final EIS and related analysis, DOE has decided to establish energy conservation standards for manufactured housing that are tiered based on the size of the manufactured home, with relaxed insulation for Tier 2 homes in certain climate zones (Alternative B2).

DOE will issue a final rule that will codify 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. Subpart A will present generally the scope of the rule and provides definitions of key terms. Subpart B will establish new requirements for manufactured homes that relate to climate zones, the building thermal envelope, air sealing, and installation of insulation. Subpart C will establish new requirements related to duct sealing, heating, ventilation, and air conditioning (“HVAC”); service hot water systems; mechanical ventilation fan efficacy; and heating and cooling equipment sizing.

Under the energy conservation standards, the stringency of the requirements under subpart B will depend on the size of the manufactured home for the tiered approach. Accordingly, two sets of standards will be established in subpart B (i.e., Tier 1 and Tier 2). Tier 1 will apply to single-section manufactured homes and will incorporate building thermal envelope measures based on certain thermal envelope components subject to the 2021 IECC, but only including components that would increase the incremental purchase price by less than \$750. Tier 2 will apply to multi-section manufactured homes and incorporate building thermal envelope measures based on certain thermal envelope components and specifications of the 2021 IECC, with alternate exterior wall insulation requirements for climate zones 2 and 3, as presented in the August 2021 SNOPR and the

October 2021 NODA and analyzed in the final EIS. Further, the energy conservation standards for both tiers also include duct and air sealing, insulation installation, HVAC and service hot water system specifications, mechanical ventilation fan efficacy, and heating and cooling equipment sizing provisions, based on the 2021 IECC. DOE will adopt a compliance date such that the standards will apply to manufactured homes starting one year after the publication date of the final rule in the *Federal Register*.

DOE notes that its decision to adopt Alternative B2 differs from the preferred alternative presented in the final EIS (Alternative C2). DOE decided to adopt Alternative B2 because of affordability and cost-effectiveness concerns identified in the consultation process and during the rulemaking process. Following the issuance of the final EIS, DOE continued to consider comments received on the rulemaking and in the interagency review process under Executive Order 12866, which included the aforementioned concerns regarding first-costs, affordability, and cost-effectiveness. DOE believes that access to affordable housing and reducing energy burdens of low-income purchasers are of the utmost importance in the manufactured housing market. Alternative B2 better addresses both of these concerns than Alternative C2 because it will ensure continued availability for the homes most often purchased by low-income purchasers (single-section homes) with little change to the current manufactured housing market, while providing energy cost savings in the nearer term for residents of these homes. A more detailed explanation of DOE's bases for adopting Alternative B2 will be provided in the final rule and its Technical Support Document in the rulemaking docket. The docket, and all documents contained therein, may be found at www.regulations.gov/docket?D=EERE-2009-BT-BC-0021.

Mitigation

The analyses presented in the final EIS identify both beneficial and adverse impacts to indoor air quality, health, socioeconomic conditions, environmental justice, and cumulative effects of DOE's proposed action alternatives. The final EIS describes measures that could mitigate potential adverse impacts. To address adverse impacts to indoor air quality, health, socioeconomic conditions, and environmental justice, the final EIS identifies the following mitigation measures:

- Promoting installation of energy-efficient fans for ventilation,
- Advancing research and stakeholder engagement to increase implementation of energy-efficient ventilation,
- Promoting training and technical assistance to manufacturers, and
- Promoting improved indoor air quality and environmental justice through efficiency labeling and informational resources about healthy homes and financing options.

The final EIS identifies that DOE could further address adverse impacts to socioeconomic conditions and environmental justice by promoting financial mechanisms to offset first costs through incentives, assistance, and informational resources. Also, the final EIS identifies that DOE could promote awareness of DOE's energy justice initiative to address impacts to environmental justice.

Along with DOE's decision to implement energy conservation standards for manufactured housing, DOE will:

- Collaborate with HUD to promote efficient ventilation, including whole-house ventilation and exhaust fan techniques.
- Advance research and stakeholder engagement on energy-efficient heating, ventilating, and air-conditioning solutions for modular housing.

- Leverage existing funded research projects to provide training and technical assistance to manufactured housing manufacturers intended to help manufacturers achieve the energy conservation standards in the most cost-efficient manner.
- Develop and implement informational campaigns to promote improved indoor air quality and environmental justice - specifically to aid potential buyers in identifying and comparing energy efficiency between homes.
- Collaborate with the Manufactured Housing Task Force to address market barriers to energy-efficient manufactured housing as an affordable, equitable, and accessible housing option, including better consumer education around how energy-efficient manufactured homes are financed.
- Coordinate with DOE's Office of Economic Impact and Diversity to promote partnerships that enhance community awareness and engagement in advancing energy justice concepts for manufactured housing.

DOE has committed to all practicable means to avoid or minimize environmental harm.

Signing Authority

This document of the Department of Energy was signed on May 16, 2022, by Derek G. Passarelli, Director, Golden Field Office, Office of 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 May 17, 2022.

Treena V. Garrett,

Federal Register Liaison Officer,

U.S. Department of Energy.

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