



## DEPARTMENT OF ENERGY

[EERE-2024-BT-DET-0007]

RIN 1904-AF66

### Determination Regarding Energy Efficiency Improvements in the 2024

#### International Energy Conservation Code

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

**ACTION:** Notification of determination.

**SUMMARY:** The U.S. Department of Energy (DOE) has reviewed the 2024 International Energy Conservation Code (IECC) and determined the updated edition would improve energy efficiency in residential buildings. DOE analysis indicates that buildings meeting the 2024 IECC, as compared with buildings meeting the 2021 IECC, would result in national site energy savings of 7.80 percent, source energy savings of 6.80 percent, and energy cost savings of approximately 6.60 percent of residential building energy consumption. Under the Energy Conservation and Production Act, as amended (ECPA), upon publication of an affirmative determination, each State must review the energy efficiency provisions of its residential building code and determine whether it is appropriate for such state to revise its building code to meet or exceed the 2024 IECC. Additionally, this notification provides guidance on state code review processes and associated certifications.

**DATES:** Certification statements provided by States shall be submitted by December 30, 2026.

**ADDRESSES:** A copy of the supporting analysis and a link to the Federal docket are available at <https://www.energycodes.gov/determinations>.

Certification Statements must be addressed to the Building Technologies Office – Building Energy Codes Program Manager, U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy, 1000 Independence Avenue SW, EE-5B, Washington, DC 20585.

**FOR FURTHER INFORMATION CONTACT:** Mr. Jeremiah Williams; U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy, 1000 Independence Avenue SW, EE-5B, Washington, DC 20585; (202) 441-1288; *Jeremiah.Williams@ee.doe.gov*.

For legal issues, please contact: Ms. Laura Zuber; U.S. Department of Energy, Office of the General Counsel, 1000 Independence Avenue SW, GC-33, Washington, DC 20585; (202) 586-4798; *Laura.Zuber@hq.doe.gov*.

**SUPPLEMENTARY INFORMATION:**

- I. Background
- II. Determination Statement
- III. State Certification

**I. Background**

Title III of the Energy Conservation and Production Act, as amended (ECPA), establishes requirements for DOE to review consensus-based building energy conservation standards. 42 U.S.C. 6831 *et seq.* Section 304(a) of ECPA, as amended, provides that whenever the 1992 Council of American Building Officials (CABO) Model Energy Code, or any successor to that code, is revised, the Secretary of Energy (Secretary) must make a determination, no later than 12 months after such revision, whether the revised code would improve energy efficiency in residential buildings, and must publish notice of such determination in the *Federal Register*. 42 U.S.C. 6833(a)(5)(A). If the Secretary makes an affirmative determination, within two years of

the publication of the determination, each State is required to certify that it has reviewed the provisions of its residential building code regarding energy efficiency and made a determination as to whether it is appropriate to revise its code to meet or exceed the provisions of the successor code. 42 U.S.C. 6833(a)(5)(B).

The International Energy Conservation Code (IECC) is the contemporary successor to the CABO Model Energy Code specified in ECPA. The IECC is revised every three years through an established code development and consensus process administered by the International Code Council (ICC). The ICC published the most recent edition of the IECC in August 2024 (the 2024 IECC) and triggered the statutorily required DOE review process. As part of the ICC process, any interested party may submit proposals, as well as written comments or suggested changes to any proposal, and make arguments before a committee of experts assembled by the ICC. The collection of accepted proposals forms the revised edition of the IECC. More information on the ICC code development process is available at <https://www.iccsafe.org/products-and-services/i-codes/code-development/cs/iecc-residential-consensus-committee>.

As required by ECPA, DOE conducts a technical analysis to assess the energy savings impacts associated with the updated code, the 2024 IECC. DOE's review under ECPA is technical in nature and helps to inform and advise interested industry stakeholders of the effects of the updated code, and informs states and local governments who ultimately adopt, implement, and enforce building codes. Although DOE is an active participant in the review and update process for the 2024 IECC, as directed under ECPA (42 U.S.C. 6836(b)), the Department neither administers nor publishes the model energy codes. Additionally, the directive for states to update their energy efficiency codes based on the updated edition of the 2024 IECC is required by ECPA. DOE's technical analysis

serves as the basis for DOE's determination and helps inform states who seek to update their codes and comply with ECPA.

DOE's full technical analysis, including assumptions and parameters applied in the analysis, is published as a separate technical support document (TSD) and available for review at <https://www.energycodes.gov/determinations>.

DOE publishes a wide range of technical assistance resources supporting building energy codes. These include additional technical analyses evaluating the impacts of updated building energy codes, such as quantifying the energy and environmental benefits, as well as additional resources supporting the adoption and successful implementation of energy codes across states and local governments. New Federal assistance is also available to support state and local adoption and implementation of building energy codes through the Bipartisan Infrastructure Law (Section 40511) and Inflation Reduction Act (Section 50131). Visit [www.energycodes.gov](http://www.energycodes.gov) to learn more about these initiatives and technical assistance resources.

## **II. Determination Statement**

Residential buildings meeting the 2024 IECC are expected to experience the following savings on a weighted national average basis (compared to the previous 2021 edition):

- 7.80 percent *site* energy savings
- 6.80 percent *source* energy savings
- 6.60 percent *energy cost* savings
- 6.51 percent *carbon emissions* savings

DOE concludes that the 2024 IECC will improve energy efficiency in residential buildings and, therefore, receives an affirmative determination under Section 304(a) of ECPA.

### **III. State Certification**

Upon publication of this affirmative DOE determination, ECPA requires each State to certify that it has reviewed the provisions of its residential building code regarding energy efficiency and made a determination as to whether it is appropriate for such State to revise its residential building code to meet or exceed the 2024 IECC. 42 U.S.C. 6833(a)(5)(B). Each State must complete its certification not later than 2 years from the date this Notice of Determination is published in the *Federal Register*, unless an extension is provided.

In the 2024 IECC development cycle, the IECC-Residential technical development committee approved several proposals that were later appealed to the ICC Board of Directors. Per the Board's decision, several measures that increased building energy performance and reliance on nondepletable sources of energy were removed from the code prior to publication and were relegated to optional appendices within the 2024 IECC. These measures will provide substantial benefits for consumers, such as supporting grid integration and reliability, and enabling homes to more readily incorporate high-performance equipment and appliances, electric vehicle charging and renewable energy systems, as well as increase resilience against climate hazards. Consequently, DOE strongly encourages states and local governments to consider adopting these appendices and measures when updating and certifying their building energy codes in accordance with the 2024 IECC. The DOE technical assistance and

funding opportunities described below are available to states and local governments for assessing and adopting these measures.

### *State Review & Update*

The State certification must be: (1) made after public notice and hearing; (2) in writing; (3) based upon findings and the evidence presented at the hearing; and (4) made available to the public. 42 U.S.C. 6833(a)(2). States have discretion regarding the hearing procedures they use, as long as they provide an adequate opportunity for members of the public to be heard and present relevant information. The Department recommends publication of any notice of public hearing through appropriate and prominent media outlets, such as in a newspaper of general circulation or electronic formats commonly relied upon for public announcements. States should also be aware that this DOE determination does not apply to IECC chapters specific to nonresidential buildings, as defined in the IECC. Therefore, States must certify their evaluations of their State building codes for residential buildings with respect to all provisions of the IECC, except for those chapters not affecting residential buildings. DOE determinations regarding earlier editions of the IECC are available on the DOE Building Energy Codes Program website.<sup>1</sup> Further technical analysis is also available to help quantify the anticipated impacts of updated building energy codes for states, local governments and other stakeholders.<sup>2</sup>

### *State Certification Statements*

Section 304(b) of ECPA, as amended, requires each State to certify to the Secretary of Energy that it has reviewed the energy efficiency provisions of its residential building code and made a determination whether it is appropriate to revise its code to

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<sup>1</sup> <https://www.energycodes.gov/determinations>.

<sup>2</sup> <https://www.energycodes.gov/national-and-state-analysis>.

meet or exceed the provisions of the successor code. 42 U.S.C. 6833(a)(4). If a State intends to certify that its residential building energy code already meets or exceeds the requirements of the 2024 IECC, the State should provide an explanation of the basis for this certification (*e.g.*, the 2024 IECC is incorporated by reference in the State’s building code regulations). The chief executive of the State (*e.g.*, the governor), or a designated State official (*e.g.*, director of the State energy office, State code commission, utility commission, or equivalent State agency having primary responsibility for residential building energy codes), must provide the certification to the Secretary. For states that do not have a statewide building energy code, the designated state official must compile and submit a list of building energy codes in place across units of local governments as part of the state certification.

#### *State and Local Technical Assistance*

The DOE Building Energy Codes Program tracks and reports State code adoption and certification.<sup>3</sup> DOE provides technical assistance to states, as well as units of local government with authority to adopt building energy codes, to assist them in evaluating building energy code updates. This assistance is available by request and may include technical analysis of expected energy code impacts, such as energy and cost savings or environmental impacts, as well as evaluation of proposed amendments, market trends, or other design and construction data, as available. Following the adoption of an updated energy code, DOE strives to provide technical assistance supporting the successful implementation of such codes, including compliance tools, education and training, and support for the updated code. DOE has issued previous guidance on how it intends to respond to technical assistance requests related to implementation resources, such as building energy code compliance software. 79 FR 15112. The Bipartisan Infrastructure

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<sup>3</sup> Available at <https://www.energycodes.gov/adoption/states>.

Law (BIL)<sup>4</sup> and Inflation Reduction Act (IRA)<sup>5</sup> also provide substantial assistance—over \$1.2 billion in new Federal funding—supporting adoption and implementation of updated building energy codes. DOE does not prescribe how each State adopts and enforces its energy codes.

### *Requests for Extensions*

Section 304(c) of ECPA requires the Secretary to extend the deadline for complying with the certification requirements described previously, if a State demonstrates that it has made a good faith effort to comply with such requirements and that it has made significant progress toward meeting its certification obligations. 42 U.S.C. 6833(c). Such demonstrations could include one or both of the following: (1) a plan to respond to the requirements in Section 304; or (2) a statement that the State has appropriated or requested funds (within State funding procedures) to implement a plan that would respond to the requirements of Section 304 of ECPA. This list is not exhaustive. States must send requests to the address provided in the **ADDRESSES** section or submit them to *BuildingEnergyCodes@ee.doe.gov*.

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<sup>4</sup> <https://www.energycodes.gov/RECI>.

<sup>5</sup> <https://www.energy.gov/scep/technical-assistance-adoption-building-energy-codes>.

## **Signing Authority**

This document of the Department of Energy was signed on December 20, 2024, by Jeffrey M. Marootian, 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 December 20, 2024.

**Treena V. Garrett,**  
*Federal Register Liaison Officer,*  
*U.S. Department of Energy.*

[FR Doc. 2024-31024 Filed: 12/27/2024 8:45 am; Publication Date: 12/30/2024]