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TECHNICAL ASSISTANCE ([HTTPS://WWW.ENERGYCODES.GOV/TECHNICAL-ASSISTANCE](https://www.energycodes.gov/technical-assistance)) ▼

Determinations

DOE is required by law (the Energy Conservation and Production Act, as amended (ECPA)) to issue a determination as to whether the latest edition of ASHRAE Standard 90.1 (for commercial and multi-family high-rise residential buildings) or the latest version of the International Energy Conservation Code (for low-rise residential buildings) will improve energy efficiency compared to the previous edition of the corresponding standard or code. DOE has one year to publish a determination in the Federal Register after each new edition of the standard/code is published.

Latest Versions

COMMERCIAL: ANSI/ASHRAE/IES STANDARD 90.1-2019

On July 28, 2021, DOE issued a determination [↗](https://www.govinfo.gov/content/pkg/FR-2021-07-28/pdf/2021-15971.pdf) (<https://www.govinfo.gov/content/pkg/FR-2021-07-28/pdf/2021-15971.pdf>) that Standard 90.1-2019 will achieve greater energy efficiency in buildings subject to the code. DOE estimates national savings in commercial buildings of approximately:

- 4.7 percent *site* energy
- 4.3 percent *source* energy
- 4.3 percent *energy cost*
- 4.2 percent *carbon emissions*

Additional information related to this action, including the official *Federal Register* publication and docket containing public comments received, is available at Regulations.gov (<http://www.regulations.gov/docket?D=EERE-2020-BT-DET-0017>).

State Certification

Upon publication of an affirmative determination, States are required to certify that they have reviewed the provisions of their commercial building code regarding energy efficiency, and, as necessary, updated their codes to meet or exceed the updated edition of Standard 90.1. Additionally,

DOE provides guidance to States on submitting certification statements and requests for deadline extensions. **State certifications for Standard 90.1-2019 must be submitted by July 28, 2023.**

Supporting Analysis

DOE conducted a technical analysis [📄 \(https://www.energycodes.gov/sites/default/files/2021-07/Standard_90.1-2019_Final_Determination_TSD.pdf\)](https://www.energycodes.gov/sites/default/files/2021-07/Standard_90.1-2019_Final_Determination_TSD.pdf) in support of its determination. This analysis assesses Standard 90.1 compared to the previous edition and estimates the anticipated energy consumption of buildings required to meet the updated Standard.

Federal Statute for Commercial Buildings

With each new edition of ANSI/ASHRAE/IES Standard 90.1, DOE is required by statute to issue a determination as to whether the updated edition will improve energy efficiency in commercial buildings (42 U.S.C. 6833):

(2)(A) Whenever the provisions of ASHRAE Standard 90.1-1989 (or any successor standard) regarding energy efficiency in commercial buildings are revised, the [DOE] Secretary shall, not later than 12 months after the date of such revision, determine whether such revision will improve energy efficiency in commercial buildings. The [DOE] Secretary shall publish a notice of such determination in the Federal Register.

(B)(i) If the [DOE] Secretary makes an affirmative determination under subparagraph (A), each State shall, not later than 2 years after the date of the publication of such determination, certify that it has reviewed and updated the provisions of its commercial building code regarding energy efficiency in accordance with the revised standard for which such determination was made. Such certification shall include a demonstration that the provisions of such State's commercial building code regarding energy efficiency meet or exceed such revised standard.

(ii) If the [DOE] Secretary makes a determination under subparagraph (A) that such revised standard will not improve energy efficiency in commercial buildings, State commercial building code provisions regarding energy efficiency shall meet or exceed ASHRAE Standard 90.1-1989, or if such standard has been revised, the last revised standard for which the [DOE] Secretary has made an affirmative determination under subparagraph (A).

RESIDENTIAL: 2021 INTERNATIONAL ENERGY CONSERVATION CODE

On July 28, 2021, DOE issued a determination [↗](https://www.govinfo.gov/content/pkg/FR-2021-07-28/pdf/2021-15969.pdf) (<https://www.govinfo.gov/content/pkg/FR-2021-07-28/pdf/2021-15969.pdf>) that the 2021 International Energy Conservation Code (IECC) will improve energy efficiency in residential buildings. In support of this determination, DOE conducted a technical analysis evaluating the impacts of the updated code (relative to the 2018 IECC edition). DOE estimates national savings of approximately:

- 9.38 percent *site* energy savings
- 8.79 percent *source* energy savings
- 8.66 percent *energy cost* savings
- 8.66 percent *carbon emissions*

Additional information related to this action, including the official Federal Register publication and docket containing public comments received, is available at Regulations.gov (<http://www.regulations.gov/docket/EERE-2021-BT-DET-0010>).

State Certification

Upon publication of an affirmative determination, States are required to certify that they have reviewed the provisions of their residential building code regarding energy efficiency, and made a determination as to whether it is appropriate for them to revise their code to meet or exceed the updated edition of the IECC. Additionally, DOE provides guidance to States on submitting certification statements and requests for deadline extensions. **State certifications for the 2021 IECC must be submitted by July 28, 2023.**

Supporting Analysis

DOE published a technical analysis [↗](https://www.energycodes.gov/sites/default/files/2021-07/2021_IECC_Final_Determination_AnalysisTSD.pdf) (https://www.energycodes.gov/sites/default/files/2021-07/2021_IECC_Final_Determination_AnalysisTSD.pdf) in support of its determination. This analysis assesses the 2021 IECC compared to the 2018 IECC and estimates the anticipated energy consumption of buildings that would be required to meet the code.

Federal Statute for Residential Buildings

With each new edition of the IECC, DOE is required by statute to issue a determination as to whether the updated edition will improve energy efficiency in residential buildings. (42 U.S.C. 6833):

(5)(A) Whenever the CABO Model Energy Code, 1992, (or any successor of such code) is revised, the [DOE] Secretary shall, not later than 12 months after such revision, determine whether such revision would improve energy efficiency in residential buildings. The [DOE] Secretary shall publish notice of such determination in the Federal Register.*

(B) If the [DOE] Secretary makes an affirmative determination under subparagraph (A), each State shall, not later than 2 years after the date of the publication of such determination, 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 such residential building code provisions to meet or exceed the revised code for which the [DOE] Secretary made such determination.

**As a predecessor to the ICC, the Council of American Building Officials (CABO) was responsible for development of the Model Energy Code (MEC). Contemporary energy codes are referred to and published as the International Energy Conservation Code (IECC)®.*

Previous Determinations

Previous DOE determinations (<https://www.energycodes.gov/previous-determinations>) surrounding building energy codes are available for reference by states and local governments, as well as other interested stakeholders.

LEARN MORE...

Building Energy Codes Program is a resource of the Department of Energy's Building Technologies Office.

Contact (<https://www.energycodes.gov/technical-assistance/help-desk>) | Building Technologies Office

(<https://www.energy.gov/eere/buildings/building-technologies-office>) | Office of Energy Efficiency & Renewable Energy

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