

STANDARD

**ANSI/ASHRAE/IES Addendum ah to
ANSI/ASHRAE/IES Standard 90.1-2022**

Energy Standard for Sites and Buildings Except Low-Rise Residential Buildings

Approved by ASHRAE and the American National Standards Institute on December 31, 2024, and by the Illuminating Engineering Society on December 19, 2024.

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FOREWORD

A recent proposal suggested the removal of the names of specific simulation programs from the standard. These names are no longer useful, because the modeling industry has expanded and matured and understands the available software. In addition, inconsistencies between these parallel sections were identified, and changes were made to make them more consistent. The sentences concerning how components are modeled were updated to read better and be self-consistent.

Addendum ah impacts an optional performance path in the standard designed to provide increased flexibility, which was not subjected to a cost-effectiveness analysis.

Note: In this addendum, changes to the current standard are indicated in the text by underlining (for additions) and ~~struckthrough~~ (for deletions) unless the instructions specifically mention some other means of indicating the changes.

Addendum ah to Standard 90.1-2022

Revise Section 12.4.1 as shown below.

12.4.1 Simulation Program. The *simulation program* shall be a computer-based program for the analysis of energy consumption in *buildings*. ~~For components that cannot be modeled by the *simulation program*, the~~ The exceptional calculation methods requirements in Section 12.4.5 shall be used for components that cannot be modeled by the *simulation program*. The *simulation program* shall include calculation methodologies for all other *building* components being modeled.

Exception to 12.4.1: When approved by the ~~adopting authority~~ *AHJ*, a separate computer-based program shall be permitted to be used to calculate *on-site renewable energy*.

Informative Note: ASHRAE Standing Standard Project Committee 90.1 recommends that the *simulation program* implement the rules of Section 12 that *control* simulation inputs and outputs be adopted for the purposes of easier use and simpler compliance.

Revise Normative Appendix C, Section C3.1, as shown below.

C3.1 Simulation Program. The *simulation program* shall be a computer-based software program for the analysis of energy consumption in *buildings*. The *simulation program* shall include calculation methodologies for the *building* components being modeled.

~~**Informative Note:** Examples of *simulation programs* include, but are not limited to, EnergyPlus and DOE-2.~~

Revise Normative Appendix G, Section G2.2, as shown below.

G2.2 Simulation Program. The *simulation program* shall be a computer-based program for the analysis of energy consumption in *buildings* ~~(a program such as, but not limited to, DOE 2, BLAST, or EnergyPlus).~~ The *simulation program* shall include calculation methodologies for the *building* components being modeled. For components that cannot be modeled by the *simulation program*, the The exceptional calculation methods requirements in Section G2.5 shall be used for components that cannot be modeled by the *simulation program*. The *simulation program* shall include calculation methodologies for all other *building* components being modeled.

Informative Note: For the ease of use and consistent application, the *simulation program* should automatically implement the requirements of this appendix to generate the baseline design and *proposed design* models based on the user model of the *proposed design*.

POLICY STATEMENT DEFINING ASHRAE'S CONCERN FOR THE ENVIRONMENTAL IMPACT OF ITS ACTIVITIES

ASHRAE is concerned with the impact of its members' activities on both the indoor and outdoor environment. ASHRAE's members will strive to minimize any possible deleterious effect on the indoor and outdoor environment of the systems and components in their responsibility while maximizing the beneficial effects these systems provide, consistent with accepted Standards and the practical state of the art.

ASHRAE's short-range goal is to ensure that the systems and components within its scope do not impact the indoor and outdoor environment to a greater extent than specified by the Standards and Guidelines as established by itself and other responsible bodies.

As an ongoing goal, ASHRAE will, through its Standards Committee and extensive Technical Committee structure, continue to generate up-to-date Standards and Guidelines where appropriate and adopt, recommend, and promote those new and revised Standards developed by other responsible organizations.

Through its *Handbook*, appropriate chapters will contain up-to-date Standards and design considerations as the material is systematically revised.

ASHRAE will take the lead with respect to dissemination of environmental information of its primary interest and will seek out and disseminate information from other responsible organizations that is pertinent, as guides to updating Standards and Guidelines.

The effects of the design and selection of equipment and systems will be considered within the scope of the system's intended use and expected misuse. The disposal of hazardous materials, if any, will also be considered.

ASHRAE's primary concern for environmental impact will be at the site where equipment within ASHRAE's scope operates. However, energy source selection and the possible environmental impact due to the energy source and energy transportation will be considered where possible. Recommendations concerning energy source selection should be made by its members.

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As an industry leader in research, standards writing, publishing, certification, and continuing education, ASHRAE and its members are dedicated to promoting a healthy and sustainable built environment for all, through strategic partnerships with organizations in the HVAC&R community and across related industries.

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