

SIGNIFICANT CHANGES TO THE

INTERNATIONAL ENERGY CONSERVATION CODE AND ANSI/ASHRAE/IES STANDARD 90.1

IECC 2012 EDITION ANSI/ASHRAE/IES 90.1—2010 EDITION



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Significant Changes to the International Energy Conservation Code and ANSI/ASHRAE/IES Standard 90.1 IECC 2012 Edition ANSI/ASHRAE/IES 90.1—2010 Edition McHenry Wallace Jr., PE, LEED AP; Joseph Deringer, AIA, LEED AP; William H. (Bill) Hudson, C.B.O., M.C.P.

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Preface

Significant Changes to the International Energy Conservation Code[®] 2012 and ASHRAE/IES 90.1-2010 Edition is intended to familiarize code officials, mechanical engineers and design professionals, contractors, and others in the construction industry with many of the important changes in the 2012 International Energy Code (IECC[®]) and ASHRAE/IES 90.1-2010. This publication will assist those code users in identifying the specific code changes that have occurred and, more important, understanding the reason for the change. It is also a valuable resource for jurisdictions in their code adoption process.

Only a portion of the total number of code changes has been included in this book. The changes selected were identified for a number of reasons, including their frequency of application, special significance, or change in application. However, the importance of the changes not included is not to be diminished.

This book is organized into two sections. Section 1 covers the significant changes for the IECC and Section 2 covers the significant changes to ASHRAE/IES 90.1. The arrangement follows the general layout of the IECC and ASHRAE/IES 90.1, including code and standard sections and section number format. The table of contents, in addition to providing guidance in use of this publication, allows for quick identification of those significant code changes that occur in the 2012 IECC and ASHRAE/IES 90.1–2010. The 2012 IECC Significant Changes for Chapters 1 through 3 of the code include both residential and commercial, followed by Chapter C4 on Commercial Provisions, and then followed by Chapter R4 on Residential Provisions.

Throughout the book, changes are accompanied by a photograph, an application example, or an illustration to assist and enhance the reader's understanding of the specific change. A summary and a discussion of the significance of the changes are also provided. Each code change is identified by type, be it an addition, modification, clarification, or deletion.

The code or standard change itself is presented in a format similar to the style utilized for code-change proposals. Deleted code or standard language is shown with a strike-through, whereas new code or standard text is indicated by underlining. As a result, the actual 2012 IECC and ASHRAE/IES 90.1–2010 language is provided, as well as a comparison with the language in the previous edition, so the user can easily identify changes to the specific code and standard text.

Significant Changes to the International Energy Conservation Code 2012 and ASHRAE/IES 90.1–2010 Edition is best used as a companion to the 2012 IECC and ASHRAE/IES 90.1. Because only a limited discussion of each change is provided, the code and standard should always be referenced in order to gain a more comprehensive understanding of the change and its application.

The commentary and opinions set forth in this text are those of the authors and do not necessarily represent the official position of the ICC or ASHRAE. In addition, they may not represent the views of any enforcing agency; as such, agencies have the sole authority to render interpretations of the code and standard. In many cases, the explanatory material is derived from the reasoning expressed by the code-change proponent. Comments concerning this publication are encouraged and may be directed to the ICC at <code>significantchanges@iccsafe.org</code>.

About *The International Energy Conservation Code®*

The International Energy Conservation Code[®] (IECC[®]) is recognized as the national model energy code of choice for U.S. cities, counties, and states that adopt codes. The IECC and its predecessor, the Model Energy Code (MEC), are cited throughout federal law for national private and public housing initiatives.

The 2012 edition of the IECC is intended to provide flexibility to permit the use of innovative approaches and techniques. This is achieved by allowing the choice of a prescriptive or performance-related compliance path for both commercial and residential buildings. The IECC is kept up to date through the open code-development process of the International Code Council (ICC). The provisions of the 2009 edition, along with those code changes approved in the 2009–2012 code development cycle, make up the 2012 edition.

The IECC is 1 of 15 International Codes published by the ICC. This comprehensive code establishes minimum regulations for building systems by means of prescriptive and performance-related provisions. It is founded on broad-based principles that make possible the use of new materials and new building designs. The IECC is available for adoption and use by jurisdictions internationally. Its use within a governmental jurisdiction is intended to be accomplished through adoption by reference, in accordance with proceedings establishing the jurisdiction's laws.

About ANSI/ASHRAE/IES Standard 90.1–2010

Standard 90.1 has been a benchmark for commercial building energy codes in the United States and a key basis for codes and standards around the world for more than 35 years. This standard provides the minimum requirements for the energy-efficient design of most buildings, except low-rise residential buildings, and offers, in detail, the minimum energy-efficient requirements for the design and construction of new buildings and their systems, new portions of buildings and their systems, and new systems and equipment in existing buildings as well as the criteria for determining

compliance with these requirements. The 2010 edition has been expanded to include new features, an expanded scope, and more detailed requirements, as well as incorporating changes from more than 100 addenda.

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About the International Code Council

The International Code Council is a member-focused association dedicated to helping the building safety community and construction industry provide safe, sustainable, and affordable construction through the development of codes and standards used in the design, build, and compliance process. Most U.S. communities and many global markets choose the International Codes. ICC Evaluation Service (ICC-ES), a subsidiary of the International Code Council, has been the industry leader in performing technical evaluations for code compliance fostering safe and sustainable design and construction.

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ASHRAE, founded in 1894, is a building technology society with more than 50,000 members worldwide. The society and its members focus on building systems, energy efficiency, indoor air quality and sustainability within the industry. Through research, standards writing, publishing, and continuing education. ASHRAE shapes tomorrow's built environment today.

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ASHRAE/IES Notice

The ASHRAE/IES portions of this publication familiarize users with changes in the ANSI/ASHRAE/IES Standard 90.1-2010 from the 2007 edition. ASHRAE/IES members knowledgeable with both editions of Standard 90.1 have compiled the ASHRAE/IES portions of this publication with care, drawing on their experience with each edition's development. However, this publication has not been reviewed by the ASHRAE/IES 90.1 Standing Standards Project Committee.