2012 IECC®
CODE AND COMMENTARY

The complete IECC with commentary after each section

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2012 International Energy Conservation Code® and Commentary

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PREFACE

The principal purpose of the Commentary is to provide a basic volume of knowledge and facts relating to building construction as it pertains to the regulations set forth in the 2012 *International Energy Conservation Code*®. The person who is serious about effectively designing, constructing and regulating buildings and structures will find the Commentary to be a reliable data source and reference to almost all components of the built environment.

As a follow-up to the *International Energy Conservation Code*, we offer a companion document, the *International Energy Conservation Code Commentary*. The basic appeal of the Commentary is thus: it provides in a small package at a reasonable cost thorough coverage of many issues likely to be dealt with when using the *International Energy Conservation Code*—and then supplements that coverage with historical and technical background. Reference lists, information sources and bibliographies are also included.

Throughout all of this, strenuous effort has been made to keep the vast quantity of material accessible and its method of presentation useful. With a comprehensive yet concise summary of each section, the Commentary provides a convenient reference for regulations applicable to the construction of buildings and structures. In the chapters that follow, discussions focus on the full meaning and implications of the code text. Guidelines suggest the most effective method of application and the consequences of not adhering to the code text. Illustrations are provided to aid understanding; they do not necessarily illustrate the only methods of achieving code compliance.

The format of the Commentary includes the full text of each section, table and figure in the code, followed immediately by the commentary applicable to that text. At the time of printing, the Commentary reflects the most up-to-date text of the 2012 *International Energy Conservation Code*. Each section's narrative includes a statement of its objective and intent and usually includes a discussion about why the requirement commands the conditions set forth. Code text and commentary text are easily distinguished from each other. All code text is shown as it appears in the *International Energy Conservation Code*, and all commentary is indented below the code text and begins with the symbol ❖

Readers should note that the Commentary is to be used in conjunction with the *International Energy Conservation Code* and not as a substitute for the code. **The Commentary is advisory only;** the code official alone possesses the authority and responsibility for interpreting the code.

Comments and recommendations are encouraged for through your input, we can improve future editions. Please direct your comments to the Codes and Standards Development Department at the Chicago District Office.

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General Comments

The 2012 edition of the *International Energy Conservation Code*® (IECC®) represents the culmination of aggressive efforts to increase commercial and residential energy efficiency requirements. Construction enhancements include required energy savings for windows, doors and skylights; thermal envelope efficiency; and increased efficiencies for installed heating, ventilating and air-conditioning (HVAC) equipment for commercial buildings three stories or greater in height. The 2012 edition of the code represents a significant increase in energy efficiency levels over the 2009 edition of the code, which represents a significant increase over the 2006 code in energy efficiency. The aggressive code change proposals are reflective of a new national focus on reduction in energy consumption that stems not only from concerns about our oil reserves, but also from growing concerns over global warming.

Purpose

Though not stated specifically, the code is applicable to all buildings and structures, and their components and systems that use energy primarily for human comfort. The code does not regulate the energy for industrial equipment for manufacturing or that is needed for items such as computers or coffee pots. The code, therefore, addresses the design of energy-efficient building envelopes, and the selection and installation of energy-efficient mechanical, service water-heating, electrical distribution and illumination systems and equipment in residential and commercial buildings alike.

PART 1—SCOPE AND APPLICATION

SECTION C101
SCOPE AND GENERAL REQUIREMENTS

C101.1 Title. This code shall be known as the *International Energy Conservation Code* of **[NAME OF JURISDICTION]**, and shall be cited as such. It is referred to herein as "this code."

❖ This section directs the adopting jurisdiction to insert the name of the jurisdiction into the code. Because the IECC is a "model" code, it is not an enforceable document until it is adopted by a jurisdiction or agency that has enforcement powers.

C101.2 Scope. This code applies to *commercial buildings* and the buildings sites and associated systems and equipment.

❖ The code applies to residential and commercial buildings and the buildings' site and associated systems and equipment. The definitions for "Residential building," "Commercial buildings," and "Building site" will be important in correctly applying the provisions of the code. See the commentary related to the definitions in Chapter 2[CE]. Additional discussion also will be also found in Chapter 4[CE] commentary.

C101.3 Intent. This code shall regulate the design and construction of buildings for the effective use and conservation of energy over the useful life of each building. This code is intended to provide flexibility to permit the use of innovative approaches and techniques to achieve this objective. This code is not intended to abridge safety, health or environmental requirements contained in other applicable codes or ordinances.

❖ This code is broad in its application, yet specific to regulating the use of energy in buildings where that energy is used primarily for human comfort, or heating and cooling of a building to protect the contents. Thus, energy used for commercial or industrial processing is to be considered exempt from the code because that energy is not used for human comfort or conditioning the space. In general, the requirements of the code address the design of all building systems that affect the visual and thermal comfort of the occupants, including:

- Lighting systems and controls.
- Wall, roof and floor insulation.
- Windows and skylights.
- Cooling equipment (air conditioners, chillers and cooling towers).
- Heating equipment (boilers, furnaces and heat pumps).
- Pumps, piping and liquid circulation systems.
- Supply and return fans.
- Service hot water systems (kitchens and lavatories).