

PART

1

Commercial Energy Provisions: Administration

Chapters 1 and 2

- Chapter 1 Scope and Administration
- Chapter 2 Definitions

The administration chapter of the *International Energy Conservation Code (IECC)* covers the general scope, intent, applicability and enforcement of the IECC. Section C101.2 establishes the criteria for buildings that are regulated by the IECC Commercial provisions. Buildings outside the scope of Section C101.2 are regulated by the Residential provisions of the IECC. The administration provisions of Chapter 1 also cover the applicability of the code to mixed-use buildings; alternative materials, design and methods of construction; construction documents; inspection fees; referenced standards; and stop work orders.

Definitions used throughout the IECC are found in Chapter 2. The definitions contained within the IECC are intended to reflect the special meaning of such terms within the scope of the code. As terms can often have multiple meanings in their ordinary day-to-day use or within the various disciplines of the construction industry, it is important that their meanings be understood within the context of the IECC. ■



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C 103.1

Digital Plans

C 103.2

Information on Construction Documents

C 202

Definition of Biogas and Biomass

C 202

Definitions of Fan Efficiencies

C103.1

Digital Plans

CHANGE TYPE: Clarification

CHANGE SUMMARY: Provisions related to energy code documentation clarify that construction documents and supporting data may be submitted digitally.

2021 CODE: C103.1 General. Construction documents and other supporting data shall be submitted in one or more sets, or in a digital format where allowed by the building official, with each application for a permit. The construction documents shall be prepared by a registered design professional where required by the statutes of the jurisdiction in which the project is to be constructed. Where special conditions exist, the code official is authorized to require necessary construction documents to be prepared by a registered design professional.

Exception: The code official is authorized to waive the requirements for construction documents or other supporting data if the code official determines they are not necessary to confirm compliance with this code.

CHANGE SIGNIFICANCE: This provision was first drafted when blueprints were the standard, and construction plans and documentation were submitted on paper. As more jurisdictions move to an online, digital submittal process, the construction documents provisions proved confusing because the requirement for “one or more sets” implied to some that paper copies are still required. This code change clarifies that the code official may choose to accept digital submittals in lieu of paper documentation. The digital format facilitates a comprehensive electronic permitting, plan review and inspection system, and includes these benefits:

- Streamlined online submittals, payments, reviews and inspection scheduling
- Standardized building site information
- Readily available project status and information
- Real-time inspection results from the field.



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Plans may be submitted digitally.

CHANGE TYPE: Modification

CHANGE SUMMARY: The information required on the construction documents has been expanded to include an indication of the energy compliance path used and additional air barrier details.

2021 CODE: C103.2 Information on construction documents. Construction documents shall be drawn to scale on suitable material. Electronic media documents are permitted to be submitted where approved by the code official. Construction documents shall be of sufficient clarity to indicate the location, nature and extent of the work proposed, and show in sufficient detail pertinent data and features of the building, systems and equipment as herein governed. Details shall include, but are not limited to, the following as applicable:

1. Energy compliance path.
2. Insulation materials and their *R*-values.
3. Fenestration *U*-factors and solar heat gain coefficients (SHGCs).
4. Area-weighted *U*-factor and solar heat gain coefficient (SHGC) calculations.
5. Mechanical system design criteria.
6. Mechanical and service water-heating systems and equipment types, sizes and efficiencies.
7. Economizer description.
8. Equipment and system controls.
9. Fan motor horsepower (hp) and controls.
10. Duct sealing, duct and pipe insulation and location.
11. Lighting fixture schedule with wattage and control narrative.
12. Location of daylight zones on floor plans.
13. Air sealing details, barrier and air sealing details, including the location of the air barrier.

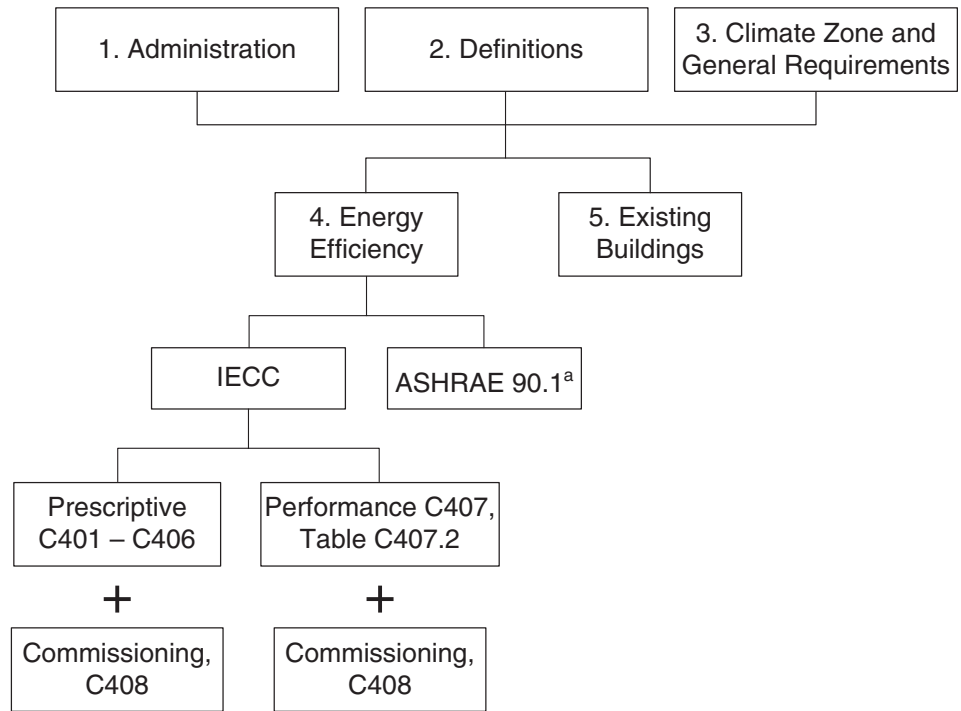
CHANGE SIGNIFICANCE: Two additions were made to the information required on construction documents to aid in plan review and inspection. The first is the identification of the compliance path. This information is essential for the plan reviewer to determine if the project demonstrates compliance with the specific energy requirements. When this information is not provided on the construction documents and plans examiners are required to investigate, the review process is lengthened. This extension may be in the form of a review comment or the time it takes to retrieve the information by email or phone. Providing the energy code compliance path details at submittal allows the plans examiner to review the plans according to the intended energy compliance path the architect/designer chose for the project.

Additionally, the requirement for air sealing documentation is clarified, providing all parties involved a clear understanding of what is required and, thus, what is to be reviewed and inspected.

C103.2

Information on Construction Documents

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^a. ANSI/ASHRAE/IES Standard 90.1-2019

Energy compliance path must be noted on construction documents.

CHANGE TYPE: Addition

CHANGE SUMMARY: Definitions for biogas, biomass and renewable energy resources are introduced and the definition of on-site renewable energy is clarified.

2021 CODE: BIOGAS. A mixture of hydrocarbons that is a gas at 60°F (15.5°C) and 1 atmosphere of pressure that is produced through the anaerobic digestion of organic matter.

BIOMASS. Nonfossilized and biodegradable organic material originating from plants, animals and/or micro-organisms, including products, by-products, residues and waste from agriculture, forestry and related industries as well as the nonfossilized and biodegradable organic fractions of industrial and municipal wastes, including gases and liquids recovered from the decomposition of nonfossilized and biodegradable organic material.

ON-SITE RENEWABLE ENERGY. Energy derived from renewable energy resources harvested at the building project site. solar radiation, wind, waves, tides, landfill gas, biogas, biomass or the internal heat of the earth. The energy system providing onsite renewable energy shall be located on the project site.

RENEWABLE ENERGY RESOURCES. Energy derived from solar radiation, wind, waves, tides, landfill gas, biogas, biomass or extracted from hot fluid or steam heated within the earth.

CHANGE SIGNIFICANCE: The definition of on-site renewable energy was first introduced in the 2012 IECC. When it was written in 2010, it was the first time that renewable energy had been defined in an I-code,



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Biomass is a form of renewable energy.

C202

Definition of Biogas and Biomass

and it reflected a very early understanding of the industry. The definition had not been significantly revised until the 2021 IECC clarified that the resources must be harvested at the project site to be considered on-site renewable energy.

A new definition for renewable energy resources delineates exactly what constitutes a renewable energy resource and includes both biogas and biomass. The definition for biomass sources is limited to those that meet specifications as waste products, as defined in the glossary of the Energy Information Administration. There are many types of biomass energy and this definition ensures that virgin material of unknown origin is not used as a steady source of energy. Collectively, these new and revised definitions support the provisions in Section C406 for on-site renewable energy, which are covered in Part 3 of this text.