



CODES & STANDARDS

THE MODEL ENERGY CODE

Buildings for the 21st Century

Buildings that are more energy-efficient, comfortable, and affordable...that's the goal of DOE's Office of Building Technology, State and Community Programs (BTS). To accelerate the development and wide application of energy efficiency measures, BTS:

- Conducts R&D on technologies and concepts for energy efficiency, working closely with the building industry and with manufacturers of materials, equipment, and appliances
- Promotes energy/money saving opportunities to both builders and buyers of homes and commercial buildings
- Works with State and local regulatory groups to improve building codes, appliance standards, and guidelines for efficient energy use
- Provides support and grants to States and communities for deployment of energy-efficient technologies and practices

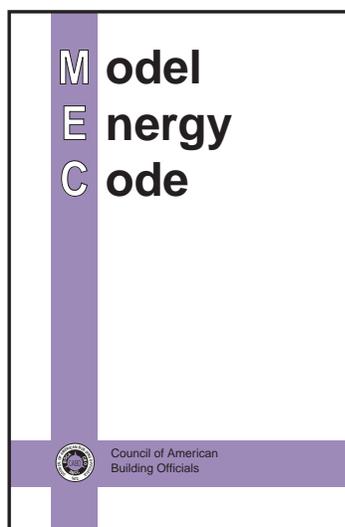


What is the Model Energy Code?

The Model Energy Code (MEC), published and maintained by the International Code Council (ICC) as the "International Energy Conservation Code" (IECC) as of 1998, contains energy efficiency criteria for new residential and commercial buildings and additions to existing buildings. It covers the building's ceilings, walls, and floors/foundations; and the mechanical, lighting, and power systems.

What editions of the MEC are available?

The MEC was first published in 1983, with subsequent full editions published in 1986, 1989, 1992, 1993, and 1995. The 1998 IECC is the successor to the 1995 MEC.



What edition of the MEC is enforced in my state?

A current list is available at www.energycodes.org. While some states have adopted the MEC without modifications, some states adopt one of the MEC editions with state-developed amendments. Still others adopt the MEC as recommended practice but have no state-wide requirement that all new construction use it.

Who developed the MEC?

The MEC was originally developed jointly (under the auspices of the Council of American Building Officials, CABO) by Building Officials and Code Administrators International, Inc. (BOCA), International Conference of Building Officials (ICBO), National Conference of States on Building Codes and Standards (NCSBCS), and Southern Building Code Congress International (SBCCI), under a contract funded by the U.S. Department of Energy.

What buildings must comply with the MEC?

The MEC applies to all new residential and commercial buildings, and additions to such buildings. *Residential buildings* are defined as detached one- and two-family dwelling units (referred to as single-family buildings or Type A1 in

For more information about the DOE Office of Building Technology, State and Community Programs, contact:

Energy Efficiency and Renewable Energy Clearinghouse (EREC)
1-800-DOE-3732
www.eren.doe.gov/buildings

Codes and Standards Home Page:
www.energycodes.org

For more information on MECcheck™ contact:

Stephen J. Turchen
Phone: 202-586-6262
FAX: 202-586-4617
Email:
Stephen.Turchen@ee.doe.gov

The Model Energy Code can be obtained from the International Code Council by calling 703-931-4533.

MECcheck™ materials can be ordered from DOE by calling 1-800-270-CODE or downloaded directly from the Web at:
www.energycodes.org/resid/resid.htm

HOTLINE:
1-800-270-CODE (2633)



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the MEC). Multifamily buildings three stories or less in height above grade must also comply with the MEC. Multifamily buildings, such as apartments, townhouses, and rowhouses that have three or more attached dwelling units and are referred to as type A2 in the MEC. Commercial buildings are defined as all buildings other than residential type A1 or A2, plus those residential buildings that are four stories or more in height above grade.

Q What additions must comply with the MEC?

Additions to residential buildings must be heated and/or cooled for the MEC to apply. Additions that are not heated and/or cooled, such as an unconditioned garage, need not comply. Energy-using systems that serve the addition must also comply with the MEC. For example, all new ductwork to an addition from an existing heating system must be insulated and sealed in accordance with the code.

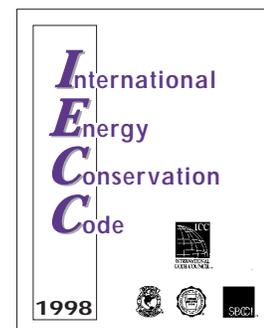
Q How do I demonstrate compliance with the MEC?

Commercial buildings must use ASHRAE Standard 90.1-1989 by reference, the 90.1 codified version, or Chapter 7 of the 1998 IECC. The U.S. Department of Energy has developed COMcheck-EZ™, a simple, prescriptive approach to demonstrating compliance with commercial energy codes. Methods for residential buildings include the use of a computerized building simulation tool to determine the energy use of the proposed design; a component-by-component approach that uses tables in the code appendix; and a whole building trade-off approach. The U.S. Department of Energy has developed a compliance tool set, MECcheck™, which makes it fast and easy for designers and builders to determine if new homes and additions to existing homes meet the MEC requirements.

Q How are changes made to the MEC?

The MEC is revised on a regular cycle through an open public-hearing process sponsored by the ICC. Anyone wanting to suggest a revision to the MEC can request a code change form, prepare a recommended change and substantiation, and participate in open public debate. For those who wish to suggest changes to the code, contact ICC at (703) 931-4533. All proposed changes are published and distributed for review prior to an open public hearing. Testimony for and against each change is heard, and a committee votes on a recommendation for each code change. The results of this first hearing are then published. Those wishing to have a proposed code change reconsidered and discussed at a second public hearing may submit a challenge to the committee's recommended action. Based on arguments at the second hearing, building officials could vote to overturn the committee's recommendation.

A new edition of the MEC (appearing every three years) or supplement to the previous edition (in years when a new edition does not appear) is published around the spring of each year.



Q How can I get a copy of the MEC?

Copies of the MEC are available from the model code organizations:

BOCA at (708) 799-2300
ICBO at (562) 699-0541
SBCCI at (205) 591-1853