

September 2004

Louisiana Energy Topic

Department of Natural Resources

Technology Assessment Division

A Supplement to LOUISIANA ENERGY FACTS on Subjects of Special Interest

COMMERCIAL ENERGY CONSERVATION CODE UPDATE

Background

The 1997 Louisiana Legislature enacted the Commercial Building Energy Conservation Code. The state legislation was mandated by Congress as part of the National Energy Policy Act of 1992 (EPAAct) which requires that states incorporate energy efficiency standards into their building codes for commercial buildings.

The intent of Congress was to develop a national energy strategy that protects U.S. national security interests by reducing reliance on imported energy supplies, enhances the competitiveness of U.S. companies in a global economy by reducing energy costs, and protects the environment and quality of life of US citizens.

It is estimated that EPAAct mandated building energy codes will prevent 6.5 million metric tons of carbon from being dispersed into the atmosphere, result in energy savings equivalent to almost 1,000 new fossil-fueled power plants, and save building occupants over \$1.5 billion per year in energy costs.

Louisiana's legislation was prepared by a comprehensive commercial building industry advisory committee, representing all facets of the commercial building industry. In Louisiana, commercial buildings are defined as all buildings designed for human occupancy, except residential buildings of three stories or less. For multifamily residential buildings of three stories or less, the applicable code is the Council of American Building Officials Model Energy Code (CABO MEC). For all other commercial buildings, the applicable code is American Society of Heating, Refrigeration, and Air-conditioning Engineers/Illuminating Engineering Society of North America (ASHRAE/IESNA) Code 90.1-1989.

The code only applies to new commercial buildings and buildings that undergo major renovation. Exempt from the code are buildings of less than 1000 square feet gross floor area; buildings, or portions of buildings, with a peak energy use for space conditioning, water heating and lighting of less than 3.5 Btu/ft²; and buildings, intended primarily for manufacturing, or commercial or industrial processing. In addition, special allowances are made for historic buildings.

Implementation of the code is via plan review in the State Office of Facility Planning for state buildings, and in the State Fire Marshal's office for all other commercial buildings. It has been incorporated into their existing plan review processes. After evaluation of building plans, the

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reviewer provides the builder with a letter of apparent compliance or a letter of apparent noncompliance. Builders may appeal the issuance of a letter of apparent noncompliance, if they so desire.

The energy code took effect July 1, 1998, for state buildings; January 1, 1999, all other commercial buildings. However, beginning July 1, 1998, builders could voluntarily submit their energy code documents to the State Fire Marshal for review and determination of compliance.

Existing Code

Effective January 1, 2004, the State of Louisiana adopted the International Building Code (IBC) 2000 as its Uniform Construction Code. Since the IBC 2000 states, "The provisions of the International Energy Conservation Code (IECC) shall apply to all matters governing the design and construction of buildings for energy efficiency," the state is presently following the IECC 2000. IECC 2000 is based on ASHRAE / IESNA Standard 90.1-1989, except in the area of lighting, which is based on the 1999 Standard. Chapter 8 covers all commercial buildings, including those with multi-zone HVAC systems.

U. S. Department of Energy Determination

Approximately every three years the Department of Energy makes a determination regarding building energy efficiency. On July 15, 2002, the DOE published its determination in the Federal Register that the ASHRAE / IESNA Standard 90.1-1999 would improve commercial building energy efficiency (exclusive of low-rise residential buildings) in comparison to Standard 90.1-1989. This determination applies to all new commercial buildings and all major remodeling and renovation of existing buildings. All states have two years to adopt Standard 90.1-1999 or upgrade their existing commercial building energy codes to meet, or exceed, its requirements. Any states that are in the process of reviewing and updating their building codes, but will not have it completed by July 15, 2004, must submit a Request for Extension of Deadline prior to July 15, 2004. The State of Louisiana submitted the Request for Extension in mid-June 2004 and received an extension to August 4, 2005 to comply.

Adoption of New Code

As required by state law, the Office of the State Fire Marshal, the Department of Natural Resources and the Department of Administration / Office of Facility Planning and Control are working together to review and recommend the adoption of a building energy code which meets or exceeds ASHRAE / IESNA 90.1-1999. It has preliminarily been decided that ASHRAE / IESNA 90.1-2001 is the best choice at this time. The 2001 Standard is essentially the same as the 1999 version, but corrects many typographical errors and includes 34 addendas. The procedure for adopting a new code is detailed by Louisiana legislation in R.S. 40:1730.

Complying with the Energy Code

The accepted method of documenting compliance is COMcheck-EZ. COMcheck-EZ can be downloaded from www.energycodes.gov. After selecting "Louisiana" and "2000 IECC," all design characteristics of the proposed building are entered behind each of the four tabs via pull-down menus. Compliance or non-compliance with the code is shown at the bottom of the form on the screen. After entering all data, the three required compliance forms (Envelope, Lighting and Mechanical) are printed (File / Print Report) and mailed to the Office of the State Fire Marshal.