

CHAPTER 15

ENERGY EFFICIENCY

SECTION 1501

ENERGY EFFICIENCY

1501.1 Objective

The energy efficiency chapter provides the requirements for building systems and portions of a building that impact energy use in new construction, and it promotes the cost-effective use of energy. This section permits flexibility in the application of code provisions as long as performance requirements are met.

1501.2 Functional statement

Energy efficiency is needed to conserve depletable energy sources. The cost of the required action compared to the energy that will be saved over the life of the action must be considered when applying conservation methods. Therefore, the building must be designed to take these concerns into account.

1501.3 Performance requirements

1501.3.1 Energy performance indices

To provide for the efficient use of depletable energy sources, the building envelope must be designed and constructed within stated parameters called “energy performance indices.” These indices indicate the amount of energy from a depletable energy source needed to maintain the building at a constant internal temperature, measured per square foot (m²) and per degree-day under standard conditions. These indices are based on the region of the country as well as the use of the building. In some cases, the local jurisdiction may choose not to specify energy performance indices for certain types of buildings.

1501.3.2 Temperature control

For buildings requiring a controlled temperature, the building design and construction must take into account various factors. Normally, only insulation, types of windows, etc., are considered when addressing energy conservation. However, to provide for the efficient use of energy, there are several other items that need to be taken into consideration such as thermal resistance, solar radiation, air tightness, and heat gain or loss from building services.

ACCEPTABLE METHODS

The *International Energy Conservation Code* is an acceptable prescriptive method related to the objectives of Chapter 15 of this document.

