



Shaping Tomorrow's
Built Environment Today

Standard 100

ANSI/ASHRAE/IES 100, Energy Efficiency in Existing Buildings

Purpose

Provides criteria that will result in reduced energy consumption through improved energy efficiency and performance in existing buildings.

Significance

The standard is the basis for commercial and high rise residential energy codes. The standard is an alternative compliance path in the International Code Council's International Energy Conservation Code, mandated by the National Fire Protection Association 900 and lays the framework for the International Association of Plumbing and Mechanical Officials' Green Plumbing and Mechanical Code Supplement. The 2013 standard is referenced in the U.S. Energy Conservation and Production Act, which requires states to adopt commercial building codes that meet or exceed the standard's requirements.

Scope

The standard is directed toward:

- a. providing procedures and programs essential to energy efficient operation, maintenance, management and monitoring,
- b. increasing the energy efficiency of the energy-using systems and components, and
- c. upgrading the thermal performance of the building envelope.

The standard applies to existing buildings, portions of buildings, and complexes, including the envelope and all systems in the building. This Standard excludes industrial and agricultural processes in buildings for which the energy use targets do not include those processes.

Facts

- Standard 100 sets specific Energy Use Intensity targets by building type, occupancy and climate zone. Analysis and targets are derived from the Commercial Buildings Energy Consumption Survey (CBECS) and the Residential Energy Consumption Survey (RECS) data bases. Being performance based, the results are real, not modeled or subjective. On an aggregate basis, application of the standard will save 30 percent of all energy used in both commercial and residential buildings (on a cost effective basis).
- The standard addresses single and multiple activity buildings with variable occupant periods and identifies the approach for 53 building types in 17 climate zones/subzones.
- A national voluntary consensus standard developed under the auspices of ASHRAE. Consensus is defined by the American National Standards Institute (ANSI), of which ASHRAE is a member and which has approved this standard as an American National Standard. It is revised through publication of addenda using a continuous maintenance process that includes public review of each proposed addendum.