

Energy Codes are Life Safety Codes

Energy codes help manage conditions that can affect building integrity and occupant health such as moisture, temperature, and indoor air quality. Ice dams and window condensation, for example – common issues that can lead to adverse building and health conditions – are avoidable by adhering to the energy code. Energy codes go beyond energy and cost savings – energy codes are life safety codes.

What are Building Codes?

Building codes are sets of regulations and standards for the design, construction, modification, and maintenance of buildings. Building codes are adopted statewide to regulate fire safety, electrical, plumbing, mechanical, and other building systems as mandatory requirements to ensure structures are safe, durable, and resilient.

What are Energy Codes?

Energy codes are a type of building code that focus on energy conservation by addressing structural components such as envelope, HVAC, duct tightness, and insulation. The International Energy Conservation Code (IECC) and ASHRAE 90.1 are the two predominate model energy codes adoptable by state and local jurisdictions.

Energy Codes Help Mitigate Climate Change

Energy efficiency reduces greenhouse gas emissions – 2017 emissions would have been 12% higher if not for efficiency measures implemented since 2000.¹

Codes Save Lives, Saves Costs

Reducing energy consumption nationwide by 15% annually would save six lives daily, save \$20 billion in avoided health care costs, and prevent 30,000 asthma episodes.²

Energy Codes Provide Economic Returns on Investment

Energy codes are the only codes that reduce the cost of ownership and offer a return on investment. Studies demonstrate that, due to energy cost savings, those who own energy-efficient homes are less likely to default on mortgages than those who own less-efficient homes.³ Improved insulation and better windows, for example, can lower utility bills by better controlling home heating and cooling.



Energy codes regulate multiple building systems while working in tandem with other building codes (fire, electrical, gas codes) to create dynamic inhabitable structures and ensure safe and healthy occupants.

Thermal Distribution

Placing the air handler and sealed ducts in conditioned space contributes to overall system efficiency and occupant comfort.

Windows

Energy codes define the windows insulation (R-Factor) and SHGC values to control indoor temperature and overall occupant comfort.

Air Exchange

The energy code's focus on air-tight construction helps prevent harmful contaminants from spreading throughout the structure, ensuring greater control over ventilation and air quality. Smoke and flame spread is also reduced due to tight construction standards.

Moisture Management

By controlling moisture, heat, and airflow, the energy codes contribute to the prevention of condensation and the growth of harmful rots, molds, and mildews.

Ventilation

Provisions within common energy codes for air sealing and the number of whole-house air changes improve indoor air quality.

Lighting

LEDs dramatically lower energy usage and radiate less heat, reducing cooling loads and HVAC equipment sizing.

HVAC

Properly sizing HVAC systems saves costs, ensures fuel efficiency and better control of indoor temperatures, improves occupant comfort, and extends the life of the equipment.

Insulation

Well-insulated houses with highly efficient windows maintain comfortable temperatures longer in the event of power loss.

Resiliency

High-performance building codes optimize efficiency measures and durability to create a resilient, "passively survivable" structure that lets occupants remain in buildings for longer during vital system loss such as gas or electric.



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