

Building Codes: An Opportunity to Save Money and Energy

Buildings consume a significant amount of the nation's energy through their use of heat, air conditioning, and lighting. Improvements in the energy efficiency of the nation's building stock can significantly reduce energy use throughout the country. Energy codes were developed as a way to foster this reduction. Since most new construction and renovation is regulated by federal, state, or local construction codes, implementation of energy building codes offers a way to improve building energy efficiency by requiring subjected construction to certain energy efficiency standards. Local government adoption and enforcement of energy codes will create energy savings for their residents and businesses as well as result in many environmental benefits.

The National Energy Policy Act (EPAct), signed into law by President Bush in 1992, determined that the 1992 Model Energy Code (MEC) was the most energy-efficient standard for residential construction then available and required states to determine if it was appropriate to revise their energy codes to meet or exceed it. In subsequent years, many states have adopted this or newer version of the MEC (1993 and 1995, for instance). Typically, the energy code adopted by communities is the MEC, which is published and maintained by the International Code Council as the "International Energy Conservation Code" (IECC). The IECC 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.

The United States Department of Energy (DOE) has invested \$37.5 million in its building energy codes program which has resulted in energy savings of nearly \$1 billion per year. The efforts have improved the energy efficiency of nearly 3 billion square feet of new commercial floor space and nearly 4 million new households. The cumulative energy cost savings from this program is estimated to be over \$4.2 billion as of 2001 - enough to provide all of the energy requirements for over 3 million homes for a year. Every \$1 spent on the Program has yielded more than \$105 in annual energy savings.

DOE has many resources to help local governments understand and implement energy codes for their communities.

Resources

Because the application of energy codes to new construction and renovation of residential and commercial buildings is universally recognized as the easiest and most cost-effective way to help consumers save energy and money, DOE provides free technical assistance to states and local jurisdictions to promote the adoption, implementation, and enforcement of residential building energy codes.

Some examples:

Compliance Materials

Materials that simplify compliance with the Model Energy Code (MEC) and the International Energy Conservation Code (IECC) are provided by DOE.

- [Residential Code Compliance Tools](http://www.energycodes.gov/rescheck/index.stm)
(<http://www.energycodes.gov/rescheck/index.stm>)
- Commercial Code Compliance Tools
(<http://www.energycodes.gov/comcheck/index.stm>)

Training Materials

[Training tools](http://www.energycodes.gov/training/index.stm) (<http://www.energycodes.gov/training/index.stm>) have been developed to support energy code training activities throughout the country.

Additional Resources

- [State-Shared Resources](http://www.energycodes.gov/implement/state_library/state_materials.stm)
(http://www.energycodes.gov/implement/state_library/state_materials.stm)
- [DOE Status of State Energy Codes](http://www.energycodes.gov/implement/state_codes/index.stm)
(http://www.energycodes.gov/implement/state_codes/index.stm)
- [Building Code Assistance Project \(BCAP\)](http://www.bcap-energy.org) (www.bcap-energy.org)
- [States Receiving DOE Technical Assistance](http://www.energycodes.gov/implement/doe_assist_states.stm)
(http://www.energycodes.gov/implement/doe_assist_states.stm)
- [State Technical Assistance Reports](http://www.energycodes.gov/implement/tech_assist_reports.stm)
(http://www.energycodes.gov/implement/tech_assist_reports.stm)