

The Value of Building Energy Codes

Building energy codes define the minimum requirements for the envelope (insulation, windows and air sealing), mechanical equipment, and lighting of a building in terms of energy efficiency/conservation for new construction or major renovations.

Michigan has adopted the 2015 International Energy Conservation Code with state-specific amendments as the statewide energy code for residential and commercial buildings. These standards for energy efficiency provide valuable benefits to Michigan building owners and occupants.



Why are building energy codes necessary?

Buildings consume nearly 50 % of Michigan's energy. The adoption and implementation of building energy codes is a cost-effective way to reduce the energy use of commercial and residential buildings. These codes also provide a multitude of benefits to Michigan residents, regardless of where they live or work.

Without energy codes, consumer expectations for energy efficiency cannot be reliably met. Building energy codes serve as a critical consumer protection and reduce the energy burden on residential and commercial building owners by lowering energy use. The energy code also produces more resilient buildings and can improve indoor environmental quality, resulting in healthier, more comfortable homes and workplaces.

How do building energy codes benefit Michiganders?

Energy Savings

Building energy codes reduce energy consumption in buildings. This helps building owners and occupants save on their utility bills, leaving more money to spend in the local economy.

Resilience

Insulation and efficient window requirements in the energy code enable buildings to better maintain indoor temperatures, allowing for residents to shelter in place for longer periods during extreme weather events. By lowering the energy use of buildings, energy codes reduce the stress on the grid, lower infrastructure costs, and improve reliability.

Air Quality

Properly sealing the building shell and ductwork while introducing controlled fresh air helps reduce the build up of harmful indoor pollutants and creates better indoor air quality. Lowering the energy demand of buildings can also reduce pollution from power generation, improving outdoor air quality.

Comfort

Efficient buildings maintain indoor temperatures better, resulting in a more comfortable indoor environment. Improving comfort has been found to enhance productivity and mental health for building owners and occupants.

Jobs

The energy efficiency sector supports more than 85,000 jobs in Michigan alone, and of these jobs, 22% are in the construction industry, making energy efficiency a significant source of employment for Michiganders.

How energy codes benefit...

Homeowners

Reduced Energy Costs: Energy codes require the construction of more energy efficient buildings, which reduce energy costs every year for the life of the building, making home ownership more affordable.

Improved Indoor Environmental Quality: Energy efficient homes provide improved indoor environmental quality, which has associated health benefits for occupants including decreased instances of asthma, allergies, and other respiratory issues.

More comfortable and resilient homes: Insulation and air sealing requirements in the energy code allow for homes to maintain comfortable interior temperatures, even in extreme weather.

Better resale value: Energy efficient homes have a higher market value and often sell quicker than similar, less-efficient homes.

The Building Industry

Promotes Job Creation: Energy codes promote job creation in the building industry, including third-party compliance personnel and building performance raters.

Promotes Best Practices: Building energy codes help identify and promote best practices for energy efficient construction and sets uniform standards for Michigan.

The Energy Industry

Decreased Peak Demand: By being able to maintain a comfortable indoor environment for longer periods, energy efficient buildings can help reduce consumer energy costs during the most expensive peak demand periods.

Reduced Energy Use: Energy codes help reduce overall energy usage, allowing utilities to better manage their customers energy demand.

Municipalities

Climate Goals: Improving building energy efficiency through the adoption and implementation of building energy codes is a critical step for Michigan municipalities in meeting their established climate and sustainability goals.

Baseline Efficiency Standards: Building energy codes set the baseline for efficiency, giving municipalities, utilities and residents an opportunity to support more efficient construction.

Sets Uniform Standards: Energy codes provide uniform standards which simplifies enforcement and allows jurisdictions to pool resources.

Available Technical Assistance: Because Michigan's energy code is based on the 2015 IECC, municipalities are eligible for technical assistance and compliance tools for code officials, contractors and design professionals from the U.S. Department of Energy.

Energy Codes and Sustainability Goals

The Michigan Energy Code sets the key building efficiency standards that are necessary for state and local governments to meet their climate and sustainability goals. By reducing energy consumption and lowering generation demand, energy codes significantly contribute to carbon reduction goals. What's more, energy codes also facilitate the shift towards clean energy by decreasing the energy required to meet our needs.

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