

Mississippi Energy Code Adoption

- Financial savings
- Healthier environment
- Economic development

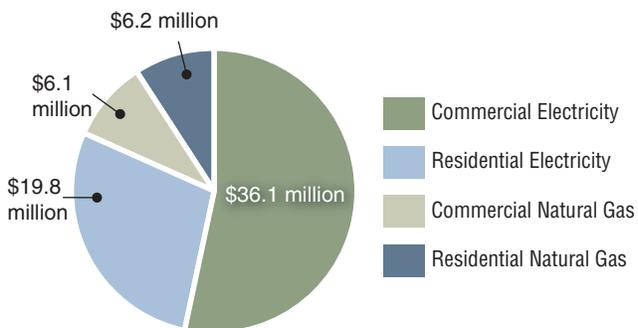
Benefits of adopting a Mississippi energy code

Mississippi consumers, design and construction professionals, utility companies, economy, public health, and environment will all benefit from adoption of a statewide building energy code.

Financial savings

Energy codes will save residents and businesses money immediately by reducing energy consumption, which lowers utility bills. These savings will continue well into the future, and reduced energy consumption will conserve energy resources, which guarantees a constant energy supply and consistent energy prices. Energy savings increase consumer purchasing power, ultimately helping to expand Mississippi's economy. According to a study by the Building Codes Assistance Project (BCAP), the estimated five-year cumulative energy savings from statewide energy code adoption for residential and commercial buildings would exceed \$53 million.¹

Mississippi Energy Savings



Job creation

Statewide adoption and enforcement of energy codes can result in job growth within the building sector by boosting demand for skilled professionals whose products and services enable buildings to meet code. New services spurred by the adoption of building codes could include building inspectors, certified Home Energy Rating System (HERS) raters, and independent energy specialists.

Reduced infrastructure demands

By improving the energy performance of all new buildings, energy code adoption reduces end-use demand on power generators, therefore extending the life of generation assets and delaying the need for construction of new generation facilities. Building energy codes also reduce pressure on the supply of natural gas, propane and other fossil fuels, which can help stabilize prices.¹

Enhanced public health

Inefficient buildings can contribute to serious health concerns, especially for children, the elderly, and those suffering from illness. Energy-efficient buildings can reduce health risks such as:

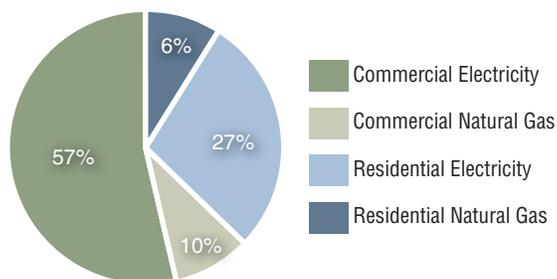
- mold
- dust and dust mites
- radon
- pollen
- rodents
- insects
- combustion by-products

Buildings are not often thought of as causing pollution related health risks, but the energy used by operating buildings is generated by burning fossil fuels which contributes to climate change, acid rain, smog, and other serious environmental problems. These environmental pollutants in turn can cause respiratory, reproductive, and pulmonary health issues.² The bottom line is—energy efficient buildings protect Mississippi residents as well as their pocket books.

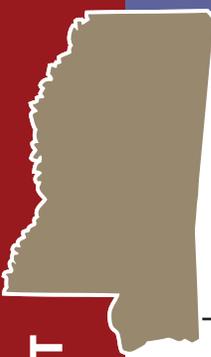
A cleaner and healthier environment

Burning fossil fuels produces emissions of sulfur dioxide, nitrous oxides, carbon dioxide, heavy metals, and other pollutants. Power generation from fossil fuels and nuclear fusion also have a significant impact on our state's water resources. Energy codes have proven to be one of the most cost-effective means to address air pollution and other environmental impacts. BCAP estimates that Mississippi could reduce CO₂ emissions by 350,086 metric tons between 2012 and 2017 by implementing residential and commercial energy codes. This is the equivalent to the emissions of burning over 35 million gallons of gasoline.¹

5-Year Total, Averted CO₂ Emissions



Cumulative avoided CO₂ emissions: 350,086 metric tons¹



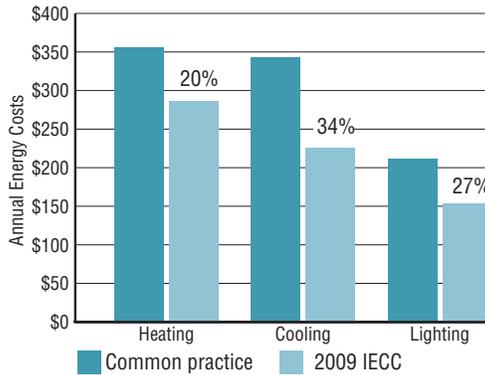
Market stability

Statewide energy code adoption offers flexibility to Mississippi design and construction professionals, allowing them to optimize the cost-effectiveness of energy efficient features and to satisfy the variety of consumer preferences. A statewide code also enables product manufacturers and suppliers to respond more effectively to market demand. In addition, a uniform building energy code across the state's 82 counties will provide consistency and avoid the confusion that would occur if there were a variety of codes throughout the state.

The Current Energy Code in Mississippi

Mississippi has a **voluntary** energy code, which is **more than three decades old**. The state's current standards for energy efficiency, based on American Society of Heating, Refrigerating and Air Conditioning Engineers (ASHRAE) 90-1975, are far behind typical building practices in the rest of the country. It is in the best economic interest of the state to immediately adopt statewide ASHRAE Standard 90.1-2007 and the 2009 International Energy Code Council (IECC) to encourage energy efficiency in residential and commercial building design and construction throughout the state.

Comparison of Building Operating Costs



Residential Energy Codes

The adoption of the 2009 IECC will result in over \$12 million of energy savings for Mississippi residents over its first five years.¹ These savings, realized through reductions in monthly utility bills, directly benefit Mississippi consumers, and in turn flow into local economies.

Increasing the energy efficiency of homes does not have to add greatly to construction costs, nor does it require special materials or construction skills. The chart below compares the estimated cost of a standard Mississippi house with the cost of a code-compliant house. In the code-compliant house, the annual energy savings exceeds the difference in mortgage payments, which provides the owner with a positive cash flow during the first year of ownership.

Mississippi Residential Annual Expense Comparison

	Common Practice House	Code-Compliant House	Cost Difference
Price of Home	\$176,000	\$177,092	+\$1,092
Annual Mortgage (5% interest)	\$9,072	\$9,126	+\$54
Annual Energy Cost	\$1,826	\$1,557	-\$269
Total Annual Expenses	\$10,898	\$10,683	-\$215
			Annual Savings of \$215

Commercial Energy Codes

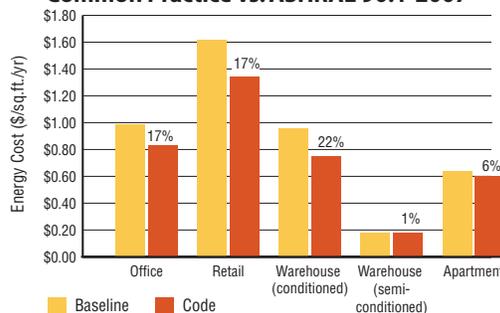
Adoption of ASHRAE 90.1-2007 will result in more than \$42 million of energy savings for Mississippi businesses during its first five years.¹ The energy code will help all building types save energy.

Energy code adoption results in savings for the building owner. Assuming a 20% equity contribution to a conventional 30-year mortgage at a 5% rate, the following average returns on investment (ROI) have been found:¹

- Office buildings: 3.5-year ROI
- Apartment buildings: immediate ROI
- Semi-heated warehouses: 4-month ROI

In addition to providing annual savings on utility costs, energy efficiency measures can improve comfort and indoor air quality.

Energy Use Comparison: Common Practice vs. ASHRAE 90.1-2007



Savings of code-compliant buildings over common practice.

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Footnotes

1. Mississippi Energy Codes Economic Analysis, June 2011, BCAP-Ocean.org
2. www.cdc.gov/Environmental