

# 2021 International Energy Conservation Code (IECC)

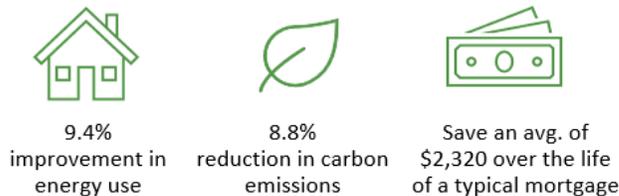
The energy code lays out *minimum* energy efficiency requirements for new and renovated buildings. While the primary goal is to conserve energy, its impact goes far beyond improving the efficiency of our homes and commercial buildings.

## Ensuring Buildings Operate as Intended

Where do people go when our structures do not offer enough protection from poor outdoor air quality and extreme weather events? It is a tough question to answer, especially as we grapple with the immediacy of our changing climate. However, by adopting and complying with the most updated energy code, municipalities can provide residents safe, healthy, and comfortable places to live and work.

## Introducing the 2021 IECC<sup>1</sup>

As awareness grows over the importance of indoor and outdoor air quality and efficient building practices, we have a roadmap in hand for new buildings and those undergoing major renovations: the 2021 International Energy Conservation Code (IECC). U.S. Department of Energy analysis indicates buildings meeting requirements in the 2021 IECC, compared to meeting those in the previous edition, the 2018 IECC, would result in the following:



## What's New in the 2021 IECC?

The International Code Council created a [fact sheet highlighting the key changes in the 2021 IECC](#).<sup>2</sup> Not only will the new provisions improve the energy efficiency of our building stock, but they make the code more user-friendly and increase flexibility for builders and developers. The increased clarity and flexibility will help local building officials ensure buildings meet and comply with the energy code.

**The 2021 IECC also offers a Zero Energy Appendix for residential & commercial buildings.** The optional appendixes will empower local governments to meet the U.S. Administration's goal for all new buildings to achieve zero-energy by 2030 and the remaining building stock by 2050.

## What's Next?

We have the tools to confront poor air quality and our changing climate. *Now we need the will to act.* Contact [Metropolitan Energy Center](#) to learn how we can work together to create a brighter, healthier, and cleaner future for all.

## Impact in the Kansas City Metro

*In home-rule states, which include Kansas and Missouri, municipalities can amend building codes as they see fit. Amendments can significantly reduce the health and cost saving benefits of the energy code. Adopting the unamended 2021 IECC will have a much greater impact in local municipalities who follow a heavily amended or older edition of the IECC.*

**Kansas Citizens want affordable, clean, and reliable energy:** [The Yale Climate Opinion Maps](#) estimate 82% of adults in the metro area support tax rebates for the purchase of energy-efficient vehicles or solar panels, and over half think their local officials should do more to address climate change. By adopting the unamended 2021 IECC, the City of Kansas City, MO can meet residents' needs and build the momentum for other municipalities in the metro to follow suit.



<sup>1</sup> <https://www.federalregister.gov/documents/2021/07/28/2021-15969/analysis-regarding-energy-efficiency-improvements-in-the-2021-international-energy-conservation-code>

<sup>2</sup> [https://cdn-web.iccsafe.org/wp-content/uploads/IECC\\_Whats\\_New\\_FLR.pdf](https://cdn-web.iccsafe.org/wp-content/uploads/IECC_Whats_New_FLR.pdf)

# Impact of a Stringent Energy Code

The energy code has a critical role in the intersection of health, affordable housing, and energy equity.



**Protects the health of residents:** According to a joint study by the American Council for an Energy-Efficient Economy (ACEEE) and the Physicians for Social Responsibility, reducing annual electricity use by 15% nationwide would save more than six lives every day and save Americans up to \$20 billion through avoided health harms annually.<sup>3</sup> This is because when people and businesses save energy, less needs to be produced. The result is less power plant pollution. Outdated or unenforced energy codes can also lead to buildings with poor indoor air quality, dangerous mold growth, and rotting structural members—wreaking havoc on occupants' health, especially those with respiratory issues. A Children's Mercy Hospital community health assessment found asthma was a top health issue identified by parents of children ages 0-5 years old in the Kansas City metro.<sup>4</sup> Investing in energy efficiency is an opportunity to protect one of our most vulnerable populations: children.



**Boosts economic development:** The energy code, and the provisions in it, are tested for their cost-effectiveness. **It is the only code that pays for itself.** Economic analysis indicates every dollar spent on energy code compliance and enforcement yields \$6 dollars in energy savings.<sup>5</sup> When governments invest in energy codes, their residents have additional money to invest in their futures and the local economy. As energy codes and standards are updated and adopted, new employment opportunities also become available. In 2019, the energy efficiency sector continued to produce more new jobs of any energy sector, representing 72% of clean energy jobs in Kansas and 73% in Missouri.<sup>6</sup> *It is crucial we keep energy efficiency on track to continue the demand for good, local jobs.*



**Benefits contractors and property owners:** A building that follows minimum construction practices is a building with fewer problems. Builders offer warranties on their finished product, and it can be extremely costly to have to go back and fix problems created by poorly sealed ducts and inadequate insulation and air sealing, especially if it means cutting into drywall. It is important to note a more stringent code typically does not have a negative impact on a city's construction income. The City of St. Louis, MO was one of the first adopters of the 2018 IECC without major amendments and has since seen an *increase* in requested building permits.<sup>7</sup> Requiring buildings to be more energy efficient also benefits landlords. To combat tenant turnover, which can be extremely costly for tenants AND property owners, *Realtor Magazine* suggests property managers invest in energy solutions.<sup>8</sup>



**Protects residents from extreme weather:** The Federal Emergency Management Agency (FEMA) stated mitigation efforts such as building code adoption and enforcement is one of the strongest strategies jurisdictions can take to protect a community against natural disasters.<sup>9</sup> This is especially important for renters and families with lower incomes who often experience higher utility costs and disproportionately high climate-related risks because of poor construction and maintenance of buildings. During the cold snap earlier this year and record-breaking temperatures this summer, residents experienced firsthand the detrimental impacts of living in homes with outdated energy codes.

<sup>3</sup> <https://www.aceee.org/research-report/h1801>

<sup>4</sup> <https://www.childrensmercy.org/siteassets/media-documents-for-depts-section/documents-for-in-the-community/community-benefit/2019-community-health-needs-assessment-kansas.pdf>

<sup>5</sup> [https://www.energy.gov/sites/prod/files/gcprod/documents/Energy\\_Code\\_Enforcement\\_Funding\\_Task\\_Force\\_-\\_Fact\\_Sheet.pdf](https://www.energy.gov/sites/prod/files/gcprod/documents/Energy_Code_Enforcement_Funding_Task_Force_-_Fact_Sheet.pdf)

<sup>6</sup> <https://www.cleanjobsmidwest.com/>

<sup>7</sup> Building Permits Survey > Permits by Metropolitan Area Annual (census.gov)

<sup>8</sup> Combat Tenant Turnover Costs With Property Upgrades | Realtor Magazine

<sup>9</sup> <https://www.fema.gov/emergency-managers/risk-management/building-science>