

May 11, 2024

Finance, Governance and Public Safety Committee
City Council of Kansas City
414 East Twelfth Street, Floor 26
Kansas City, Missouri 64106

Re: MEEA's comments related to the weakening/repealing of the full, unamended 2021 IECC

Dear Vice Chairman Lucas and Members of the Finance, Governance and Public Safety Committee,

Thank you for the opportunity to provide comments regarding the City's implementation of the full, unamended 2021 International Energy Conservation Code (IECC). The Midwest Energy Efficiency Alliance (MEEA) is a member-based, non-profit organization promoting energy efficiency to optimize energy generation, reduce consumption, create jobs and decrease carbon emissions in all Midwest communities. MEEA has experience supporting states and municipalities across the region as they develop building energy policies and implement codes programs and trainings.

MEEA does not support weakening or repealing the 2021 IECC as Kansas City's building energy code. More specifically, MEEA does not support the adoption of a Home Energy Rating System (HERS) compliance pathway with a minimum required score of 68. First, a 68 HERS score equates roughly to the 2012 IECC prescriptive pathway (for Climate Zone 4A),¹ which is extremely outdated, and second, the proposed HERS compliance pathway does not include any envelope backstop (essentially allowing unlimited HVAC and or renewables/envelope tradeoffs) or any additional minimum requirements from the prescriptive path (e.g., Table R405.2 or Table R406.2 for the other two performance pathways). These proposed provisions would significantly reduce the energy efficiency of residents' homes and businesses while also increasing their utility bills and overall cost of ownership. Additional reasons to keep the 2021 IECC in place are as follows:

1. The memorandum being circulated and used to support such code changes is inaccurate.

The increased costs cited in the referenced memorandum (memo) are taken out of context and are not accurate, as they only represent the costs associated with the prescriptive path of the 2021 IECC. The other two compliance path options included in the 2021 IECC have been shown to be less expensive to implement and are generally supported by the industry for their flexibility. For example, air sealing and tightening of the building envelope has the highest impact on increasing energy efficiency and is also the least expensive improvement to make. A builder could choose to build a tighter building envelope (e.g., 2 ACH(50) instead of 3 ACH(50))² and then trade off that efficiency so that continuous insulation in the walls and R60 in the roof would not be required. Choosing another path also means that double frame walls (as represented in the cost calculations) would not be necessary.

¹ Pacific Northwest National Laboratory, Identification of RESNET HERS Index Values Corresponding to Minimal Compliance with the IECC Performance Path, [HERSAndIECCPerformancePath_TechnicalReport.pdf](https://www.energycodes.gov/HERSAndIECCPerformancePath_TechnicalReport.pdf) (energycodes.gov)

² This is an estimate; actual trade-offs vary per building.

Moreover, MEEA calculated the cost attributed to continuous wall insulation using Means Construction Cost Data and arrived at a number about three times less than that proposed in the memorandum (i.e., \$6,958 as compared to \$18,137).

The “Additional Energy Package” that is cited to cost around \$3,000 is also unnecessary if a builder puts all the ducts in conditioned space, which is a common building practice in many Midwestern homes (and is better for air quality in general).

2. The flexibility of the 2021 IECC is beneficial to builders and designers.

With the inclusion of several alternative compliance pathways, the 2021 IECC offers project-level flexibility, which allows builders and designers to take different pathways to achieve the same goals. For example, there are three compliance pathways for residential buildings in the 2021 IECC which makes the building process more adaptable for builders. Additionally, there are two compliance pathways for commercial buildings in the IECC, and an optional ASHRAE 90.1-2019 path. Home builders advocated for these options during the development of the model code, as they assist with the ease of construction and the cost of construction.

3. Stronger building energy codes bring Kansas City closer to its savings and climate goals.

The updated Kansas City Climate Protection and Resiliency Plan lays out strategies to achieve “a carbon-neutral...Kansas City by 2040.”³ Interim targets include reducing greenhouse gas (GHG) emissions from city municipal operations 70% by 2025 (with the goal of being climate neutral by 2030) and reducing citywide GHG emissions 30% by 2025 and 50% by 2030 (with the goal of being climate neutral by 2040).⁴

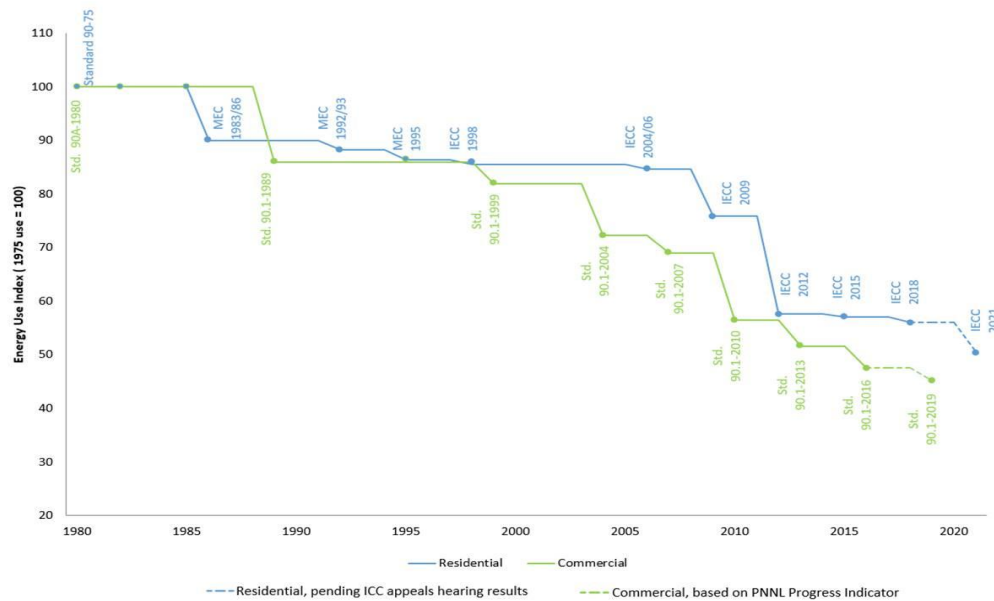
If Kansas City wishes to effectively contribute toward the goals of the Climate Protection and Resiliency Plan, the unamended 2021 IECC is undoubtedly a step in the right direction. Indeed, these goals were one of the primary reasons the City Council skipped over the 2015 IECC and 2018 IECC in order to update to the 2021 IECC.

It is important for the Committee to recognize the importance of staying up to date on the energy codes published by the International Code Council (ICC). The ICC updates the code every three years, and the 2024 version is set to be published this Spring. This cycle is purposeful as it provides states with consistent, incremental steps to adopt and implement with ease – each new code standard is a steppingstone towards the next.

Moreover, building energy codes become more efficient and cost-effective with each new version that is developed. Indeed, the U.S. Department of Energy (DOE) is required by law to issue a determination as to whether the latest version of the IECC will improve energy efficiency compared to the previous edition of the corresponding standard or code. For example, DOE found that the 2021 IECC improved efficiency by 9.4% and reduced greenhouse gases (GHG) by 8.7% over the 2018 IECC. Those improvements save homeowners an average of \$2,320 over the life of a typical mortgage.

³ Kansas City, Missouri Climate Protection and Resiliency Plan (<https://indd.adobe.com/view/04e8f07a-1fdb-4c92-91b8-8f4ec1a83f4c>)

⁴ This is based off a 2005 baseline.



Model Energy Codes Efficiency Updates. Source: ACEEE, Data from Pacific Northwest National Laboratory & U.S. DOE Building Codes Program

That being said, it is crucial for Kansas City to continue regularly updating its energy code standards if it wants to get the most “bang for its buck.” Failing to do so only diminishes all the economic and sustainability benefits that strong codes have to offer.

4. There are already opportunities available for additional compliance support.

MEEA, the Metropolitan Energy Center, and others offer training to the building industry (including builders and building code officials) to educate on the specific provisions of the 2021 IECC (and now the 2024 IECC) and how best to implement them. Additionally, MEEA created and manages the Missouri Code Compliance Collaborative, which is a group of stakeholders that comes together regularly to explore common interests and address obstacles related to energy code compliance. The Collaborative establishes a neutral, cooperative forum for identifying and tackling obstacles to improving energy code compliance.

These strategies help citizens better understand the codes and apply them successfully. Especially when coupled with other state-created resources, these programs can help designers and builders feel confident that they won't be left to fend for themselves when it comes to implementing stronger energy efficiency standards.

5. The U.S. Department of Housing and Urban Development (HUD) and Department of Agriculture (USDA) just [announced on Thursday \(4/25\)](#) that their new building construction standards would be those of the 2021 IECC and ASHRAE 90.1-2019, as those standards were found to be not cost-prohibitive.

An analysis conducted on behalf of HUD and USDA concluded that updating minimum standards to the 2021 IECC and ASHRAE 90.1-2019 is not cost-prohibitive,⁵ even to households in need of the most affordable types of housing. The previous requirements, updated in 2015, were equivalent to those of the 2009 IECC and ASHRAE 90.1-2007 and represent a larger increase in energy efficiency than the recent KCMO update from the 2012 IECC to the 2021 IECC.

The federal study considered many factors, including the internal rate of return (IRR), net present value, incremental and aggregate costs and savings, single family and multifamily buildings, home size, climate zone, cash flow impacts for homebuyers, inflation and interest rates. According to the analysis, "the impacts will vary across climate zones, states, and localities depending on changes in market conditions; however, **HUD found the standards to be affordable and cost effective within each state.**" The ruling concluded that HUD and USDA should update their minimum energy efficiency requirements to the 2021 IECC and ASHRAE 90.1-2019, providing energy savings to America's most vulnerable households and keeping them affordable. The final report stated, "energy costs are one of the few household expenses where significant cost savings can be achieved through efficiency, both in the short- and long-term, resulting in decreased costs for the resident."

6. It requires a broad range of experts and stakeholders to consider and determine the appropriate code standards that should be in place for the city.

This responsibility should not belong solely to city officials and home builders. Rather, it should be a collective effort among those who have training and expertise in topics like building science, energy use and efficiency, economics, environmental impact assessment, environmental justice and more. People spend the majority of their lives inside buildings; therefore, it is crucial that they are safe, affordable and environmentally sustainable, and energy codes guarantee these protections by prescribing strong, educated building standards.

The continued implementation of the full, unamended 2021 IECC as Kansas City's building energy code is the most cost-effective way to ensure an improved level of efficiency for residential and commercial buildings over time. The 2021 IECC (and more updated model energy codes) reduces long-term energy use and costs for residents and businesses and advances the city's savings and climate goals.

If you have any questions about this testimony, noted reports and references or general impact and analysis of building energy codes, please contact Maddie Liput, Building Codes & Policy Manager for MEEA, at mliput@mwalliance.org. Thank you for your consideration.

Sincerely,



Paige Knutsen, Executive Director

⁵ [Minimum Energy Standards | HUD.gov / U.S. Department of Housing and Urban Development \(HUD\): \(https://www.hud.gov/program_offices/comm_planning/environment_energy/mes_notice\)](https://www.hud.gov/program_offices/comm_planning/environment_energy/mes_notice)