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May 5, 2022

Neighborhood and Community Development Standing Committee
701 North 7th Street
Kansas City, Kansas 66101

Re: MEEA's comments on the proposed 2018 International Energy Conservation Code

Dear Chairman McKiernan and members of the Neighborhood and Community Development Standing Committee:

Thank you for the opportunity to testify on the City of Kansas City, Kansas's code adoption process and the proposed update to the 2018 International Energy Conservation Code (IECC). The Midwest Energy Efficiency Alliance (MEEA) is a member-based, collaborative non-profit organization that promotes cost-effective energy efficiency policies in order to reduce energy waste in the Midwest. We have worked with states and localities across the region on energy code adoptions.

MEEA commends the city for taking steps to improve the efficiency of new and existing buildings in its' jurisdiction. Updating the City's building energy codes will provide numerous economic, health, and resilience benefits to residents and businesses living and working in the Kansas City area. However, the inclusion of the proposed amendments to the residential and commercial energy code will result in missed opportunities to capitalize on these benefits. Specific amendments like removing testing requirements for envelope and ducts, and especially allowing building cavities to be used as ducts and plenums, are archaic building practices that significantly reduce the energy efficiency of the building and increase operating costs while removing the benefits of improved indoor air quality.

MEEA recommends the adoption of the unamended 2018 IECC as the citywide minimum energy code for residential and commercial buildings. There are multiple benefits to the unamended code which maximizes cost-effective improvements to the efficiency and resilience of buildings, reduces energy costs, and encourages innovation and economic development.

1. Energy efficiency is the most cost-effective way to ensure lower utility bills

Energy efficiency simply means using less energy to get the same job done. By lowering energy use, energy efficiency also cuts monthly energy bills and makes energy more affordable. The adoption of the unamended 2018 IECC presents a cost-effective way to reduce the energy consumption of homes in the Kansas City area and save residents money. Updating to the unamended 2018 IECC would result in homes that are nearly 28% more energy efficient than those constructed to the 2009 IECC and would provide homeowners and renters significant savings on their utility bills for years to come.¹ The easiest and most cost-effective time to make these long-lasting improvements is during initial construction, making the baseline energy code a significant driver of energy cost savings in the city.

¹ See U.S. DOE's Determination of Efficiency (<https://www.energycodes.gov/determinations>).



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2. Energy code adoption does not result in less construction

There is no evidence that stronger energy codes lead to less new construction. In fact, data collected from 2008 to 2018 shows that the amount of Midwest building permits stay relatively the same regardless of the IECC standard in place. The fact is simple – people and businesses will continue to build where they want to live and not based on the energy code in place; so, municipalities may as well require buildings in their jurisdiction to be built as efficiently and cost-effectively as possible.

3. Stronger codes provide opportunity for designers and builders to learn and utilize new construction techniques and technologies

Newer building energy codes leverage the latest building science and technology and so provide various building professionals with valuable learning opportunities. This technical assistance may include analysis of energy savings and cost impacts associated with code adoption, comparative analysis of future code options, customized educational materials, web-based or in-person training programs, or compliance resources and software tools (like COMcheck and REScheck).

If the Kansas City area adopts the unamended 2018 IECC, there are more available resources to educate local designers, builders, building operators, and code officials (among others) about how to properly comply. MEEA itself offers training sessions and webinars to building professionals, municipalities, states, utility companies, etc., and once these entities learn how to properly use the newest building techniques and technologies, they start to realize significant cost savings, as well. MEEA's energy code trainings have improved compliance in Kentucky, Missouri, and Nebraska. The Metropolitan Energy Center also provides energy code trainings.

Overall, updated energy codes provide localities with a great opportunity to build up their workforce. The building industry is constantly evolving, and industry professionals understandably want to remain ahead of the curve. Their businesses improve if they know something their competitors do not. Updated energy codes give them that chance.

By adopting and implementing the full 2018 IECC, Kansas City will see increased economic development and technical innovation within the construction industry. In supporting a lower standard, the result will be an undertrained workforce that falls behind neighboring jurisdictions and an out-of-date building stock that wastes energy and money.

4. Building energy codes effect the life of a building – not just its initial construction

Another key point for the Committee to consider is that the life of a building does not end as soon as it has been constructed. A builder touches a home one time – a family (and families after it) lives in the home for years and years, and that family deserves a safe, efficient, cost-effective building in which to live. The city must give as much consideration to building owners and occupants as it gives to *builders*. After all, owners and occupants are the ones suffering the consequences of inefficient homes through higher energy bills and maintenance costs and poorer indoor air quality. However, if buildings are constructed as efficiently as possible, owners and occupants will see the direct benefits for years to come.

5. Nebraska has successfully adopted the full, unamended 2018 IECC

In May 2019, Kansas's neighboring state Nebraska updated its statewide residential and commercial energy code to the 2018 IECC without amendments. Prior to that, Nebraska had not updated its energy code since 2012, when the state adopted the 2009 IECC for all residential and



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commercial buildings. The state should serve as a model, especially for other Midwest municipalities, of what can be accomplished by updating an energy code without weakening amendments.

Since the 2018 IECC adoption, Nebraska has seen numerous benefits directly related to the code, including significant energy and cost savings. By one estimate from Vandemusser Design LLC, a study commissioned by the Nebraska Energy Office, homeowners and occupants would use 15% less energy, saving nearly \$200 on their energy bills annually. Those savings are expected to continue over the lifetime of the home. Furthermore, despite modest increases in construction costs, homeowners would see positive cash flow in less than a year according to a Nebraska-specific U.S. Department of Energy (DOE) study. Expected energy savings for commercial buildings are even higher.²

6. Adopting the full, unamended 2018 IECC will bring Kansas City closer to its savings and climate goals

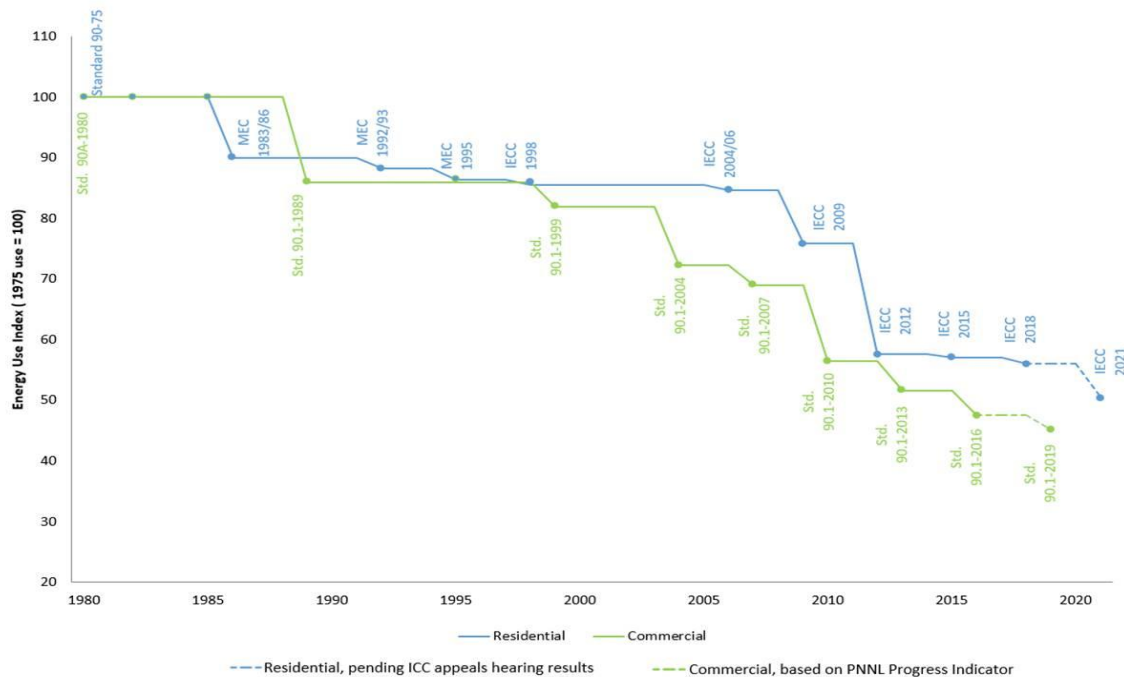
To conclude, it is important for the Committee to recognize that the 2018 IECC is already four years old. The International Codes Council (ICC) updates the code every three years, so the 2024 version is set to be released next Fall. This cycle is purposeful as it provides municipalities with consistent, incremental steps to adopt and implement with ease – each new code standard is a steppingstone towards the next.

Building energy codes become more efficient and cost-effective with each new version that is developed. Indeed, the DOE is required by law (the Energy Conservation and Production Act, as amended) 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.³ For example, the department found that the 2021 IECC improved efficiency by 9.4% and reduced greenhouse gases by 8.7% over the 2018 IECC. These improvements would save homeowners an average of \$2,320 over the life of a typical mortgage.⁴

² See Midwest Energy Efficiency Alliance – “Nebraska Just Passed the Midwest’s Leading Energy Code” (<https://www.mwalliance.org/blog/nebraska-just-passed-midwests-leading-energy-code>)

³ See U.S. DOE’s Determination of Efficiency (<https://www.energycodes.gov/determinations>)

⁴ See ICC’s Reasons for Adopting the 2021 IECC (<https://www.iccsafe.org/products-and-services/iecc-on-a-mission-toolkit/>)



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

All that being said, the age of the 2018 IECC must be considered by the Committee when determining how to best utilize the code. Amending an already-outdated standard would only make it that much weaker and more ineffective. Moreover, if the region hopes to eventually adopt and implement the 2024 IECC, it would be beneficial to start moving towards that goal now, rather than try to make such a big, potentially burdensome leap later.

Lastly, the Kansas City Regional Climate Action Plan recently laid out strategies to achieve net zero greenhouse gas emissions by 2050.⁵ Interim net zero goals focus on local government operations (by 2030), energy generation (by 2035), and homes and buildings (by 2040). This Climate Action Plan serves five counties in Kansas, including Wyandotte County. If Wyandotte County and Kansas City, Kansas wish to effectively participate in and contribute to the goals of the Regional Climate Action Plan, the unamended 2018 IECC would undoubtedly be a step in the right direction.

If you have any questions about this testimony, noted reports and references, attached fact sheets, or the general impact and analysis of building energy codes, please don't hesitate to contact Alison Lindburg, Senior Building Policy Manager, at alindburg@mwalliance.org or 312.784.7257.

⁵ See Climate Action KC's Net Zero Kansas City Region by 2050 (<https://climateactionkc.com/plan>)



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Sincerely,

Stacey Paradis
Executive Director