



September 8, 2023

Rep. Curtis Tarver  
Illinois Joint Committee on Administrative Rules  
401 S. Spring Street, #700  
Springfield, Illinois 62706

**Re: MEEA's comments in support of the adoption of the full 2021 International Energy Conservation Code for residential and commercial buildings**

Dear Representative Tarver,

Thank you for the opportunity to provide comments on the proposed Illinois Energy Conservation Code. The Midwest Energy Efficiency Alliance (MEEA) is a nonpartisan member-based non-profit organization promoting energy efficiency to optimize energy generation, reduce consumption, create jobs and decrease carbon emissions in all Midwest communities. We have provided technical assistance and education on energy efficient building policies since 2009 in Illinois and other states and, accordingly, we urge the Joint Committee on Administrative Rules (JCAR) to take the necessary action to adopt the full 2021 International Energy Conservation Code (IECC) in Illinois.

We strongly recommend the adoption of the 2021 IECC without weakening amendments as the statewide minimum building energy code for residential and commercial buildings. The statewide adoption of the unweakened<sup>1</sup> provisions of the 2021 IECC is essential for the state of Illinois to meet energy and climate ideals that were outlined in the Illinois Energy Transition Act (Act).<sup>2</sup> In addition to ensuring the state does not leave available energy savings on the table, adopting the full 2021 IECC has the following benefits:

- Reduced energy use and utility bills for residents and businesses
- Increased comfort and improved indoor air quality
- Increased resilience, allowing residents to shelter in place longer during extreme weather events and/or power outages
- Increased grid reliability, necessary for electrification and equity efforts
- Cost savings by installing efficiency measures at the time of initial construction, rather than retrofitting existing buildings
- Meeting the state's climate goals
- Ensuring successful adoption and implementation of the residential Illinois stretch code
- Reduced burden on the building industry by minimizing the gap between the base code and the stretch code
- Staying up to date with the most current model code and, thereby, staying up to date on improved building practices and technologies

**The Unweakened 2021 IECC Benefits Illinois Residents and Businesses**

The 2021 IECC would greatly improve energy efficiency in buildings over the 2018 IECC. U.S. Department of Energy (DOE) analysis indicates that buildings meeting the 2021 IECC result in state-

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<sup>1</sup> "Unweakened" refers to a version of the 2021 IECC that has not been amended to include reduced or lesser building standards than those contained in the full, unamended 2021 IECC.

<sup>2</sup> Also known as the Climate and Equitable Jobs Act (CEJA).

specific energy savings of 9.8%.<sup>3</sup> If adopted, DOE estimates Illinoisans will save \$4,212,000 the first year, resulting in more than \$1.37 billion dollars in energy savings over the next 30 years.

The unweakened 2021 IECC would reduce the burden on Illinois residents and businesses beyond lower energy bills. More efficient buildings also increase comfort and improve indoor air quality, both of which are much needed in low-income communities, and they provide increased grid reliability, which is necessary for electrification and equity efforts. Adoption of the 2021 IECC provides increased grid resilience in communities, allowing residents to shelter in place longer during extreme weather events and/or power outages if needed.

As mentioned above, adoption of the full 2021 IECC can also help Illinois minimize equity disparities. Decreasing the gap between the stretch code and the base code reduces the creation of inequities among communities. Regardless of which municipality you live in, **every Illinois resident deserves low energy bills and a well-built home**. To meet the equity intentions of the Act, it will be important for the state to update its energy code for *all* Illinoisans, not just those that have the political will and resources to adopt the stretch code.

### **The Unweakened 2021 IECC Benefits the Building Industry**

The model codes are intentionally designed to incrementally improve efficiency, minimizing “big leaps.” Not updating codes regularly creates bigger leaps in standards and increases the potential burden on the building industry. A large variance between the stretch code and state base code could potentially add an additional hurdle to the building industry. By adopting the most up-to-date model code (2021 IECC), which is developed through a rigorous stakeholder engagement process of multiple industries, the state would be **reducing its potential burden on industry**.

Increased cost is always a point of concern with energy code adoption processes. It is important to remember that the building industry touches a home once – at the point of its construction – but the residents who will live in that home for decades will feel the impact of its construction practices for much longer. It is also much more cost-effective to include energy efficiency at the time of initial construction rather than during renovations. Additionally, the energy code is considered the floor – the least efficient building that can be constructed by law – so builders who are only building to the bare minimum standards may see a slight cost increase with a code update. However, for builders who are already building “better than code” (and many of them affirm they do), there should be little to no actual increase in cost to meet an updated energy code. Furthermore, U.S. DOE estimates that adoption of the 2021 IECC would result in more than 11,000 new jobs in Illinois over the next 30 years.

Lastly, the United States federal government is prepared to provide billions of dollars in funding for updated energy code adoption and implementation, which should aid both the enforcement community and building industry. The Inflation Reduction Act specifically will provide states with \$1 billion – one third of this funding can go to states that meet or exceed the 2021 IECC, and two thirds can go to states that require net-zero homes. There will also be additional funding available to train the workforce in energy efficiency technologies and methods. Overall, the 2021 IECC is the most economical way to gradually increase the level of efficiency in buildings.

### **The Weakening of Roofing Provisions Weakens the Entire Code**

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<sup>3</sup> [https://www.energycodes.gov/sites/default/files/2021-07/IllinoisResidentialCostEffectiveness\\_2021\\_0.pdf](https://www.energycodes.gov/sites/default/files/2021-07/IllinoisResidentialCostEffectiveness_2021_0.pdf)

**Ceiling/Roof R-value should remain as written in the 2021 IECC.** While it's true that the draft residential 2024 IECC lowers the latest (2021 IECC) R-60 ceiling cavity prescriptive insulation requirement to R-48 (the current Illinois/2018 IECC requirement), Illinois should not attempt to "make it consistent" by dropping the draft code to R-48 while adopting the rest of the 2021 IECC. Of note:

- The change in the draft 2024 IECC occurred because other requirements were amended to offset the lower R-value efficiency. Without also adopting those changes, lessening the prescriptive R-values from R-60 to R-48 weakens the overall efficiency of the 2021 IECC/Illinois Energy Conservation Code, and removes the intended "building as a system" functionality that is considered during the energy code development process.
- The 2021 IECC does not require R-60 on all compliance pathways. Only by using the prescriptive table would a builder need to install R-60 in the ceiling/roof. The Alternative UA Performance path and the Energy Rating Index (ERI) path are two alternative compliance methods available in the 2021 IECC where the builder could choose to build to R-48 by gaining efficiency in other components.

**Roof replacements are the best time to improve insulation.** Existing buildings are among the largest energy users in Illinois, as recognized through the passage of the Climate and Equitable Jobs Act. Insulation in existing buildings is difficult to access, making a roof replacement is the best time to improve the insulation of existing buildings. Removing this provision severely weakens the energy code and deprives building tenants of the benefits of lower energy bills. Additionally, this weakening language was proposed for the upcoming 2024 IECC and was rejected by consensus committee members comprised of experts in the building industry. The state should not remove or redefine any requirement to improve roof insulation while doing a roof replacement.

### **Energy Codes Are the Most Cost-Effective Way to Improve Building Energy Efficiency**

Buildings, of course, do not just impact builders, and cost-effectiveness for the lifetime of a building should not only be determined through a first-time installation cost. As described above, energy codes provide utility cost savings for Illinois residents over the **lifetime of the home** and are the **only** building code that provides any fiscal payback. Additionally, there are existing and upcoming utility and federal programs providing rebates or financial assistance for energy efficient building components

### **The Unweakened 2021 IECC Is Crucial to Illinois Climate and Equity Goals**

The statewide adoption of the full provisions of the 2021 IECC is essential for the state of Illinois to meet energy and climate ideals that were outlined in the Governor-supported Illinois Energy Transition Act. Buildings account for approximately 40% of GHG emissions nationally, and no climate strategy will be successful if it fails to reduce building sector emissions. In fact, U.S. DOE estimates that adoption of an unweakened 2021 IECC would result in reducing CO<sub>2</sub> emissions by 12,500,000 tons over the next 30 years.<sup>4</sup>

Meanwhile, adoption of a *weakened* 2021 IECC will also likely cause difficulties for municipalities to adopt the Act's new stretch code. A large gap between the state base code and the stretch code may create a lift too large for some municipalities to pass a stretch code policy. For example, the first efficiency target of the stretch code for residential buildings is 32.4% more efficient than the current Illinois residential energy code. This is a substantial divergence caused by historic weakening amendments to the state base code. To ensure successful adoption and implementation of the residential Illinois stretch code, the state should adopt the unweakened 2021 IECC and lessen the gap between the state base and stretch codes.

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<sup>4</sup> [https://www.energycodes.gov/sites/default/files/2021-07/IllinoisResidentialCostEffectiveness\\_2021\\_0.pdf](https://www.energycodes.gov/sites/default/files/2021-07/IllinoisResidentialCostEffectiveness_2021_0.pdf)



20 N. Wacker Drive, Suite 1301  
Chicago, Illinois 60606

312.587.8390 [Main Line](tel:312.587.8390)

312.587.8391 [Fax](tel:312.587.8391)

[www.mwalliance.org](http://www.mwalliance.org)

While the Act's stretch code will give municipalities a new opportunity to meet their own climate goals by requiring newly constructed buildings to be more energy efficient than the state code, adopting a weakened 2021 IECC for the rest of the state may exacerbate inequity by leaving some communities behind in energy efficiency. Low income and low-capacity communities are less likely to be able to consider and adopt stretch codes, so the unweakened 2021 IECC provides greater efficiency to *all* communities more equitably.

### **Conclusion**

Based on the information provided, MEEA believes the State of Illinois should take the necessary steps to adopt the unweakened provisions of the 2021 IECC. Adoption of the full 2021 IECC in Illinois will reduce energy use and costs for residents and business owners, create more comfortable and healthier indoor environments, and protect low-income residents from paying high energy costs that could significantly impact their way of life. Adopting the 2021 IECC without weakening amendments would also result in more efficient, resilient buildings and put the state on track to meet its established climate goals.

If you have any questions or need more information, please contact Maddie Liput at [mliput@mwalliance.org](mailto:mliput@mwalliance.org). Thank you for your time and consideration.

Sincerely,

Bill Angelos  
Acting Executive Director