



December 12, 2023

Construction Industries Division

Regulation and Licensing Department

5500 San Antonio Drive NE, Suite F

Albuquerque, NM 87109

**ATTENTION: Public Comments – International Code Council Comments Supporting the Adoption of the 2021 New Mexico Energy Conservation Code**

I am writing on behalf of the International Code Council (ICC) in support of the State of New Mexico's adoption of the 2021 New Mexico Energy Conservation Code based on the 2021 International Energy Code (IECC).

The International Code Council is dedicated to providing the building industry with the tools necessary to realize safety, sustainability, and resilience goals. Building codes and standards provide a common language and requirements for the design, construction, and operation of buildings. The International Code Council – a nonprofit organization of roughly 700 employees driven by the engagement of its more than 60,000 members – facilitates the development of model building codes for adoption at the national, state, and local level. The International Codes (I-Codes) are updated every three years and developed through a consensus-based process, bringing together expertise from the public and private sector to capture the latest science and technology. Most U.S. states and communities, federal agencies and many global markets choose the I-Codes to set the standards for regulating construction and major renovations, plumbing and sanitation, fire prevention and energy conservation in the built environment.

In March 2021, the Code Council Board of Directors released a new framework, [Leading the Way to Energy Efficiency: A Path Forward on Energy and Sustainability to Confront Climate Change](#), committing to the development and support of the tools communities and the building industry needs to achieve their energy priorities. This includes leveraging the success of the International Energy Conservation Code (IECC) to drive more effective implementation and achievement of the energy and greenhouse gas emissions (GHG) savings captured in codes. The framework establishes a new scope and intent for future editions of the IECC that commits to continued improvement and the inclusion of zero energy pathways today and by 2030.

Modern energy codes are an impactful tool to increase energy efficiency and reduce the GHG emissions directly associated with new buildings. In addition, modern energy codes are a mechanism to deliver energy bill savings for consumers and enhance community resilience in the face of growing natural hazards like extreme heat and cold events. The International Code Council strongly encourages the State of New Mexico and the New Mexico Construction Industries Commission to update the New Mexico Energy Conservation Code to the 2021 IECC.

**Consensus-Based Code Language**



The I-Codes are recognized by the federal government as national “voluntary consensus standards” under Office of Management and Budget (OMB) Circular A-119 and the National Technology Transfer Advancement Act (NTTAA), meaning they are developed in an open forum—with a balance of interests represented and due process—that, ultimately, ensures a consensus outcome. The model codes are designed to support consistency in policy and reflect knowledge and practice from across the building industry. At the same time, the IECC offers design professionals the flexibility to use innovative materials, technologies, designs, and methods to create an efficient building that meets their compliance path of choice.

The IECC provides consensus-based code language to achieve energy conservation and GHG emissions reduction in new buildings. The 2021 IECC includes new provisions that increase efficiency and encourage greater flexibility in design and construction as well as changes to existing requirements that provide clarification and improve usability of the code. The 2021 IECC also includes three new additional energy efficiency package options, bringing the total number of energy efficiency compliance pathways to eleven. In addition, the 2021 edition incorporates Zero Energy appendices for both residential and commercial buildings. The Zero Energy provisions included in the 2021 IECC are not mandatory unless specifically referenced in the adopting ordinance. The provisions are included as appendices with the intention to provide options for jurisdictions with ambitious climate goals.

### **Benefits of Adopting the 2021 IECC**

The Department of Energy (DOE) has observed that energy efficiency is a low-cost resource across the country that can reduce household energy costs regardless of a given state’s climate, heating fuel and energy price factors. Implementation of updated energy codes is foundational to achieving energy savings and GHG emissions reductions across the national building stock, both for residential and commercial buildings. Modern building energy codes have made significant progress in advancing efficiency over the last 40 years. Each new edition of the energy code has provided for the cost-effective reduction of energy use. The 2021 IECC represents a roughly 40 percent improvement in energy efficiency for buildings compared to the 2006 edition, along with corresponding improvements in building, mechanical and material science and technology.

The Pacific Northwest National Laboratory’s (PNNL) final determination on the 2021 IECC found a 9.4 percent site energy savings improvement and an 8.7 percent reduction in carbon emissions for residential buildings relative to the 2018 edition, saving homeowners an average of \$2,320 over the life of a typical mortgage.<sup>1</sup> The U.S. Department of Housing and Urban Development (HUD) estimates that hard-working families will save over 35% on energy costs by building homes using the latest energy codes.<sup>2</sup> Specific to the State of New Mexico, PNNL determined that adoption of the 2021 IECC for residential buildings would provide annual savings of \$266 for residents with an annual energy cost

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<sup>1</sup> DOE, EERE, *Determinations*, <https://www.energycodes.gov/determinations>.

<sup>2</sup> U.S. HUD, Office of Community Planning and Development, [Minimum Energy Standards](#).



savings of 12.0 percent.<sup>3</sup> Adoption of the 2021 IECC in the State of New Mexico could also create roughly 231 jobs in the first year and over 6,500 cumulative jobs over 30-years.<sup>4</sup>

In addition to the residential provisions, DOE found that the commercial provisions of the 2021 IECC (which includes multifamily buildings over three stories) provide a 12.1 percent improvement in site energy use and a 10.2 percent improvement in GHG emissions over the 2018 edition.<sup>5</sup> The determination concluded that, on a national weighted average basis, the 2021 IECC is 6.5% more efficient for site energy use and 3.3% more for energy costs than ASHRAE Standard 90.1-2019.

DOE has also found that modern building energy codes play an important role in community resilience, both in grid resilience as well as passive survivability of structures built to the latest editions of the IECC.<sup>6</sup> A recent report by DOE and three national labs<sup>7</sup> found that the 2021 IECC can reduce deaths during a disaster-induced power outage coupled with extreme heat by 80% and extreme cold by 30%. Benefit-cost ratios for these resilience benefits ranged from 2 to 6 to 1. These benefits are additive to the energy bill savings the IECC provides. Given the trend that extreme weather events are growing in severity and frequency, the resilience benefits associated with current energy codes represent a meaningful piece of our national resilience to hazard events.

### **Existing Energy Codes and Custom Code Publication**

Currently, many states and the Federal government have adopted energy codes based on the 2021 IECC to promote increased energy savings and GHG emissions reduction in support of their climate, resilience and energy goals. To date, the 2021 IECC is currently adopted statewide in 8 states, in use in 17 states, and is required by the Federal Emergency Management Agency (FEMA) for post-disaster recovery construction and HUD for manufactured housing.<sup>8</sup>

The International Code Council has significant custom code publication expertise, assisting states to develop state-specific building codes that incorporate specific requirements to meet their needs. For example, ICC worked with New Jersey to develop and publish the State's custom edition of their 2021 International Residential Code (IRC). Chapter 11 of the New Jersey edition of their 2021 IRC parallels the 2021 IECC residential provisions to provide minimum design requirements that will promote efficient utilization of energy in buildings. ICC, in partnership with ASHRAE and the Massachusetts Department of Energy Resources (DOER), published a base and stretch code titled *2020 Massachusetts Energy Codes*. This ninth edition of the Massachusetts Building Energy Code is based on the 2018 IECC and ANSI/ASHRAE/IES8 Standard 90.1-2019, which contains specific requirements designed to meet the needs of the commonwealth. The International Code Council supported the publication of this custom code, providing a single Massachusetts energy code book which provides greater convenience and clarity on our building energy codes for both base code and stretch code communities. The International

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<sup>3</sup> DOE, [Cost-Effectiveness of the 2021 IECC for Residential Buildings in New Mexico](#) (July 2021).

<sup>4</sup> *Id.*

<sup>5</sup> DOE, EERE, [Energy and Energy Cost Savings Analysis of the 2021 IECC for Commercial Buildings](#).

<sup>6</sup> DOE, EERE, *Energy Resilience*, <https://www.energycodes.gov/energy-resilience>.

<sup>7</sup> [https://www.energycodes.gov/sites/default/files/2023-07/Efficiency for Building Resilience PNNL-32727\\_Rev1.pdf](https://www.energycodes.gov/sites/default/files/2023-07/Efficiency%20for%20Building%20Resilience%20PNNL-32727_Rev1.pdf).

<sup>8</sup> [FEMA Recovery Interim Policy FP- 104-009-11 Version 2.1](#).



Code Council can support the State of New Mexico in publishing a streamlined custom energy code following the development process.

### **Federal Funding Opportunities**

The Federal Government has allocated more than \$1.2 billion in federal funding to encourage the adoption and effective implementation of safe, resilient, and sustainable building energy codes through the Infrastructure Investment and Jobs Act (IIJA) and Inflation Reduction Act (IRA).

The IIJA has made available \$225 million for the Resilient and Efficiency Codes Implementation (RECI) program to support the cost-effective adoption of an updated building energy code that improves energy efficiency. The IIJA also established financial assistance through the Energy Efficiency and Conservation Block Grant Program (EECBG) and State Energy Program (SEP) to promote energy conservation and electric grid stability through the development, adoption, and effective implementation of building energy codes, like the IECC.

In addition, the IRA provides \$1 billion to support jurisdictions seeking to adopt, update and improve the implementation of current energy codes. In September, DOE announced \$400M in formula funding for states to either (1) adopt the 2021 IECC or zero-energy appendix or (2) achieve full compliance with the 2021 IECC or its zero-energy appendix. This funding supports adoption of the 2021 IECC for both residential and commercial buildings.<sup>9</sup> DOE has designated up to \$8.65 million for the state to support energy code updates that meets these requirements. Funding can also be used for International Building Code and International Residential Code adoptions as part of an energy code adoption. To access any of this funding, a letter of intent from the state is due to DOE by November 21, 2023. Final applications are accepted on a rolling basis through September 30, 2025. This is the first of at least two funding rounds, with \$600M remaining after this announcement.

New Mexico is encouraged to leverage their current energy code development and subsequent related activities to successfully apply for these unprecedented funding opportunities. The International Code Council is poised to support communities in funding and executing energy code activities through these grant opportunities, such as development and implementation of a stretch energy code. Stella Carr ([scarr@iccsafe.org](mailto:scarr@iccsafe.org)), ICC's Energy and Resiliency Grants Manager, can assist the State in applying and implementing funding to support this effort.<sup>10</sup>

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The International Code Council is happy to serve as a resource to the State of New Mexico throughout the Building Code Council's proposed energy conservation code update process. On behalf of our New Mexico members and Chapters, the Code Council thanks the New Mexico Construction Industries

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<sup>9</sup> DOE SCEP, [Assistance for Latest and Zero Building Energy Code Adoption \(Sec. 50131\)](#), Administrative and Legal Requirements Document.

<sup>10</sup> Visit [www.iccsafe.org/federalgrants](http://www.iccsafe.org/federalgrants) to learn more.



Commission for the opportunity to comment in support of the proposed adoption of the 2021 edition of the New Mexico Energy Conservation Code based on the 2021 IECC.

Sincerely,

Rick Bluntzer  
Regional Manager, Government Relations  
[rbluntzer@iccsafe.org](mailto:rbluntzer@iccsafe.org)