

**Testimony of the International Code Council
to the
Committee on Energy and Commerce
Subcommittee on Energy and Air Quality**

“Climate Benefits of Improved Building Energy Efficiency”

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Good morning, Mr. Chairman, and distinguished Members of the Subcommittee. My name is Richard Weiland, Chief Executive Officer of the International Code Council. I am delighted to be here to discuss the benefits of increasing energy efficiency in the built environment, speaking on behalf of the tens of thousands of code safety officials, “First Preventers,” as they are increasingly known, who have the crucial role of implementing the codes that protect people, property and health and reduce risks to First Responders when accidents occur.

The Code Council was formed in 1994 as a nonprofit organization dedicated to developing a single set of comprehensive and coordinated national model construction codes. The founders of the ICC were the Building Officials and Code Administrators International, Inc. (BOCA), International Conference of Building Officials (ICBO), and Southern Building Code Congress International, Inc. (SBCCI). Since the early 1900s, these nonprofit organizations developed three separate sets of model codes used throughout the United States. Although such regional code development was effective at the time, a global marketplace and technological advances in construction made a single set of codes a practical necessity. The nation’s three model code groups responded to this need by creating the International Code Council and by developing codes without regional limitations — the *International Codes*.

Today our International Codes have been adopted at the state or local level in all 50 states and the District of Columbia. Numerous federal agencies, including the General Services Administration, the Department of Defense and the Architect of the Capitol, have implemented the I-Codes, as have Puerto Rico and the U.S. Virgin Islands. The Code Council’s 46,000 members and 300 chapters include state, county and municipal code enforcement and fire officials, architects, engineers, builders, contractors, elected officials, manufacturers and others in the construction industry.

Recognizing that buildings are responsible for 40 percent of annual energy consumption and 25 percent of landfill deposits in the United States and that energy efficiency is central to environmental security and health safety, the Code Council embraces its national and international leadership responsibility in helping communities everywhere become better stewards of the safety of our people and the health of our planet. The stronger and more sustainable homes and buildings are, the safer and more affordable to maintain they become and the less impact they have on the world’s limited resources. Energy efficient buildings save money by greatly reducing operating and maintenance costs. Helping communities build safe, sustainable and green is a core element of ICC’s mission for the 21st Century.

The Code Council is the proper forum for the development of an energy efficiency code for buildings. Long before the use of the term “green” came into vogue, in the mid-70’s, ICC’s legacy organizations developed with the Department of Energy the first energy efficiency construction code — a model code still used today as the basis for state and local energy codes. Our widely adopted family of codes set the minimum performance standards for energy efficiency, demonstrating the significant benefits that can accrue through compliance with codes and standards that are consistent and coordinated to achieve the maximum benefit for the lowest cost. The model codes also provide the platform from which state and local governments can move to even higher standards.

Each of the 13 model codes developed by the Code Council is written for direct adoption by government authorities as legally enforceable requirements. As important as our codes are, it is the professional commitment and capabilities of design and build professionals and compliance officials that ensures that code requirements are actually met. The professional certification and training programs we provide prepare and qualify building and fire safety professionals across the country. These certification and training programs are based on a thorough understanding of these codes as mandatory engineering and architectural requirements for design professionals, and as readily measurable requirements for inspectors.

The Subcommittee is specifically interested in the question of improved energy efficiency for buildings as it relates to our model codes. Before I address that issue, I would like to take a moment and explain how the code development process works. Our model codes are regularly updated and amended through an open and thorough democratic process in which any individual or group can propose a change. ICC committees, comprised of a balance of interests, hear all code change proposals. These members are the same people who work every day as design, construction and compliance professionals, saving lives, protecting property and reducing recovery costs. Final decisions are made by our voting members, who have no vested interests beyond public safety.

Through this Governmental Consensus Process, we reach a grassroots national position on how responsibly to address America’s needs, priorities and expectations for the built environment. It is undoubtedly true that in a democratic process like ours not every jurisdiction or industry sector will be completely satisfied with the outcome. Inevitably some will say we are moving too fast, and others, that we are not moving fast enough. Because the decisions are consensus driven and arrived at democratically, the result does not represent an extreme, but rather a prudent and practical result based on technological feasibility, economic purpose and public benefit.

The Subcommittee asked whether model building codes give the same priority to energy efficiency as to fire protection and other safety elements. The fundamental mandate of model codes is to protect the health, safety and general welfare of building occupants, both in regular building usage and in emergency situations. The Code Council publishes 13 codes, relating to different aspects of construction and building use — each is developed in the same fashion and offered for adoption, but individual jurisdictions are free to choose which of these codes to adopt and enforce. In that respect, the Energy Efficiency Code is treated just like every other code we publish. Within the building codes, increasing energy efficiency must remain consistent with our responsibility to provide for structural safety, fire prevention, water use, sanitation, disaster

resilience, indoor air quality, emergency egress and the like. The minimum requirements of the codes are based on the voting action of our membership and reflect broad, expert consensus regarding the very least that can and should be done in achieving energy efficiency in tandem with other building requirements.

Yet in the development of our nation's model building codes, there is a long and proud history of public safety professionals using the code development process as a forum for addressing broad and growing social expectations in building requirements. In this way, advances in energy efficiency can most directly and effectively be translated into widely understood, adopted and enforced policies and practices.

Clearly, expectations for more stringent requirements in the ICC energy code for new buildings are increasing. Interest in the ICC Energy Conservation Code has grown in each code development cycle since it was first produced. During the 2007-2008 cycle, a record 150 code change proposals were submitted related to the energy code. One hundred of those proposals will be considered for inclusion in the 2009 I-Codes during the Final Action Hearings in Minneapolis this September. Of those 100 proposed changes, I will highlight two that would affect energy efficiency in buildings.

Both proposals are essentially the same, but one (EC-14) would mandate the reduction of energy use in buildings by 30 percent, while the other (EC-154) would make the reduction optional. This so-called "30 percent solution" has been proposed by the Energy Efficient Codes Coalition and would add new efficiency measures for lighting, insulation, ventilation and other building components that contribute to energy use. The proposals are in direct response to DOE's Energy Efficiency Campaign, which calls for the evaluation and strengthening of residential and commercial building codes.

As the Subcommittee suggests in its questions, residential energy efficiency could be higher, and the Code Council is committed to providing a forum for that outcome. It is our view that the most significant barrier to achieving compliance with a significant number of state and local energy efficiency requirements based on the ICC Energy Efficiency Code is a lack of financial support for code offices and code officials. The quality and effectiveness of codes are ultimately dependent on having professionals in the field in every local community who have the tools and training to ensure compliance.

For more than two years now, the Code Council has been working with Congress to establish a competitively available grant program dedicated exclusively to the purpose of funding improvements in local and state code enforcement capacity. We are, of course, incredibly pleased with the House passage last week of HR 4461, the "Community Building Code Administration Grant Act of 2007," sponsored by your colleague from Kansas, Rep. Dennis Moore. With the support of over 100 nationally endorsing organizations, including some of my fellow panelists, we are actively working to encourage Senate action on S 2458, the companion to the House bill.

The Code Council, in partnership with the National Association of Home Builders, has also just completed initial development of the National Green Building Standard, which is expected to be

the first ANSI-accredited standard for green residential construction. This new standard will make it easier for builders to adapt to green building methods, techniques and materials, and it will give jurisdictions a means to scale up and provide requirements for even higher energy efficiency.

The green building standard is just one way in which we are seeking to lessen the environmental impact of the built environment. The Code Council already offers a Residential Energy Inspector Certification, and is developing a new certification for code officials to demonstrate an inspector's ability to assess compliance with green building programs. The Inspector of Green Building Technologies will help "First Preventers" provide assurances that green building projects are both safe and meet current energy codes and standards. ICC also supports sustainable building through a working agreement with the U.S. Green Building Council to develop green educational materials.

The Committee also asked whether code requirements are readily enforceable by local code inspectors. This was one of the issues raised years ago when the first energy codes were developed. Since then and through our process many enhancements have been made to the code that include clear labeling of products, simplicity of requirement presentation, availability of software, and minimization of calculation. Code enforcers can also request an interpretation or review support materials available through the Code Council.

The Committee asked why the energy requirements in the codes are not higher. The short answer is that the process determines the requirements. Considering where the requirements started in 1977 they have become significantly higher and should continue to do so commensurate with available research and analytical documentation.

While the focus on global warming is important, the consensus process allows for other issues to be taken into account. When dealing with buildings that are expected to last for 50 or 100 years, factors such as safety, longevity, life-cycle cost and potential unintended problems must also be considered. Our process ensures that those who must implement design and product changes at the level of building construction and renovation are actually aware of those new technologies, and that building officials can assure installation in compliance with the code.

We welcome and encourage heightened Federal involvement and participation in the development and dissemination of our codes, including revisions to the International Energy Conservation Code, where support for higher efficiency standards would be helpful, and the National Green Building Standard. We also welcome the participation of our colleagues and friends at the witness table, some of whom are already extensively involved.

Federal agencies and officials have long played an important role in the code development process. Like Code Council members and the public at large, Federal agencies can offer code changes, present evidence and act in advocacy for the adoption, amendment or rejection of proposals.

The Department of Energy, represented here on the panel, is among the most active. The history of DOE's involvement with model codes goes back more than 30 years, to the development,

adoption and implementation of the first nationally recognized stand-alone model energy code. Other agencies adopting and utilizing model codes include the Department of Housing and Urban Development, especially for elements addressing accessibility and the Fair Housing Act; the General Services Administration; the Department of Defense; and the Architect of the Capitol.

Because we are addressing national imperatives to increase energy efficiency and reduce greenhouse gas emissions, DOE and the Environmental Protection Agency must be supported and funded to actively participate in the ICC model code development process at a level on par with our national priority to achieve these results. True to the nature of our democratic process, acceptance of code change proposals is based on the development and presentation of supporting research and actively providing background and education to other participants. It is through grassroots efforts that code advancements are accepted, then made local policy by jurisdictional adoption, and then put into force by design, building and compliance professionals across the country.

For maximum effectiveness, building energy code development and advocacy must remain principally focused on the ICC model code process. The federal/state/local partnership in development and enforcement of policies to achieve building energy code requirements must continue to respect the jurisdictional independence of local and state authorities.

We also need to address the fact that the majority of our present and near-future energy consumption is by buildings that already exist. Unless a building is remodeled or renovated, it will not be affected by building code requirements for new construction. Steadily and responsibly advancing requirements for new building is part of the equation, but we also need to continue to increase our investment, as a nation, in incentive policies that will successfully encourage existing property owners, both commercial and residential, to voluntarily retrofit older buildings with cost-effective improvements that will get their properties to perform as close as possible to – or even outperform – new building requirements.

Market barriers to greater energy efficiency are being identified through the work of organizations that prepare product evaluation reports to facilitate the acceptance of new technology. These reports are used by code compliance officials to recognize and accept the installation of new technologies that can support energy and environmental goals. Our affiliate, ICC Evaluation Service, is one such national organization.

ICC's efforts to facilitate the application and use of Building Information Model (BIM) technology will help address the productivity issues facing the building industry, and cost savings can be applied toward making buildings more energy efficient. A BIM prepared from a building design can be quickly analyzed for energy code compliance. This is particularly useful since a building designed to be compliant in one geographic region may need different features for compliance in another. BIM technology can also reduce the energy consumed in constructing a building through more efficient management and use of time and materials.

In closing, the Code Council and its members are proud of their support of the environment through the development of responsible and innovative codes and standards for the regulation of

building construction. I applaud the work of your Subcommittee and encourage continued collaboration between the public and private sectors to achieve the important goal of increased energy efficiency in our nation's buildings. Thank you again for the opportunity to appear before you today. I will gladly answer any questions.