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Docket No. EERE-2011-BT-BC-0046
Building Energy Codes Cost Analysis

COMMENTS OF:
THE INTERNATIONAL CODE COUNCIL (ICC)
500 New Jersey Ave, NW
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The International Code Council (ICC) offers the following comments on the Request for Information, Docket No. EERE-2011-BT-BC-0046, published on September 13, 2011.

The International Code Council (ICC) is a membership association dedicated to building safety, fire prevention, and energy efficiency. The International Codes, or I-Codes, published by ICC, provide minimum safeguards for people at home, at school and in the workplace. Building codes benefit public safety and support the industry's need for one set of codes without regional limitations. Among the codes published by ICC is the, International Energy Conservation Code (IECC), which is referenced in the Energy Conservation and Production Act (ECPA, Public Law 102-486), and the Energy Independence and Security Act (EISA) of 2007, and is a national requirement in the American Recovery and Reinvestment Act of 2009. ICC also publishes the International Green Construction Code (IgCC), which contains energy efficiency, water efficiency, air quality, siting and location considerations and sustainability provisions.

Fifty states and the District of Columbia have adopted the I-Codes at the state or jurisdictional level. Federal agencies including the Architect of the Capitol, General Services Administration, National Park Service, Department of State, U.S. Forest Service and the Veterans Administration also enforce the I-Codes for the facilities that they own or manage. The Department of Defense references the International Building Code for constructing military facilities, including those that house U.S. troops, domestically and abroad.

ICC was established in 1994 as a non-profit organization dedicated to developing a single set of comprehensive and coordinated national model construction codes. The founders of the ICC are Building Officials and Code Administrators International, Inc. (BOCA), International



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Conference of Building Officials (ICBO), and Southern Building Code Congress International, Inc. (SBCCI). Since the early part of the last century, these non-profit organizations developed three separate sets of model codes used throughout the United States. Although regional code development was effective and responsive to our country's needs, the time came for a single set of codes. The nation's three model code groups responded by creating the International Code Council and by developing codes without regional limitations; the International Codes.

Background

We begin by noting with approval the background statement that indicates that DOE supports the development of the ICC International Energy Conservation Code, as well as other voluntary building energy codes, such as the International Green Construction Code (IgCC). Traditionally, DOE's support has been in the form of providing expert testimony regarding proposed modifications to the codes, including analysis of the improvement in energy efficiency and the cost effectiveness of proposed modifications.

We would also agree strongly with DOE's background statement that describes the DOE process used in the past for developing these analyses as "ad hoc," as well as the assertion that there is a strong need for a "consistent and transparent methodology for assessing the cost effectiveness of code change proposals and for assessing the cost effectiveness of new code versions." ICC has, in fact, encouraged DOE officials to provide transparency on its methodology and assumptions for analyzing code changes in the past, and continues to believe that making the methodology and underlying assumptions and modeling inputs transparent to all code development participants would further DOE goals as well as improve the ability of all code development participants to understand and appreciate code change proposals and their impact and cost.

We agree with the requests of other participants in the code development process who have asked DOE to release information related to its methodology, including cost and efficiency assumptions, inputs and modeling calculations, so that all participants can understand how DOE has developed its information.

We also agree strongly with DOE's stated intention in the background section of the Request for Information to divide the cost effectiveness calculation into three discrete steps: Energy savings, estimated first cost, and calculated economic impacts of the changed code provision(s). Dividing the analysis into these three sections allows each to be reviewed separately, and allows for agreement where possible in one segment, where there may be differing views on one or more of the other elements of "cost effectiveness." This is a sensible and reasonable way to proceed, when, as DOE's background information acknowledges, calculations of both first cost and cost effectiveness are subject to a variety of differing views and assumptions, by various code development participants.



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Request for Information

The RFI requests information on several issues. We will comment on those individually:

1. General comments on DOE's use of cost-effectiveness calculations to evaluate code-change proposals and new code versions.
We believe that it is useful for DOE to develop and use cost-effectiveness calculations, but only if all the assumptions, inputs, and modeling calculations are fully transparent and available publicly. In this way, those who agree with DOE calculations can be comfortable in using the DOE analysis, and those who disagree, can make their case as to why certain assumptions, inputs, and/or calculations should be different, to reach more accurate results. An open and transparent DOE process, as part of the overall open government consensus code development process utilized by ICC to develop its codes, makes sense, and will result in the highest quality codes.
It should be noted that under current ICC Code Development published procedures, as described in our ICC Council Policy #28, Section 3.3.5.6 of that policy, entitled "Cost Impact," the proponent of a code change proposal is required to indicate if the proposal will increase or will not increase the cost of construction. Therefore, it is appropriate and very useful for DOE to develop a standardized, transparent methodology for the determination of cost effectiveness, which will include the cost of construction as one of its inputs.
2. The appropriateness of DOE's use of cost effectiveness calculations to evaluate code change proposals and new code versions.
ICC will not comment on the specific cost effectiveness tools recommended by DOE, including the Energy Plus tool, the default assumptions, or the methodology and approaches to assessing code proposals. ICC believes that decisions on these issues are decisions that are best made based on DOE policy and expertise, and that such choices are within DOE's technical and legal purview.
We believe that the more important consideration is that all of these tools, assumptions, approaches and methodologies be transparent and public, and subject to public review and challenge. If there is full transparency, then the specific choices are less important, since they can then be reviewed and supported or challenged within the code process.
3. The appropriateness of DOE's approach to assessing the first cost of new code requirements.
As with the previous issue, ICC believes that the most important consideration is that the assessment methods used by DOE and/or its contractors, labs and employees are fully transparent, and all assumptions and methodologies are subject to public review. Full transparency benefits the process, as well as DOE's credibility.
4. The appropriateness of DOE's cost-effectiveness methodology.
ICC, as the forum for code development, and consistent with antitrust considerations, does not typically itself develop or review cost-effectiveness calculations. Instead, we



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rely upon both public and private sector participants in the code development process to provide useful and expert input on such considerations, as part of the code development process. In particular, our ICC Council Policy #28, Section 3.3.5.6, "Cost Impact," requires the proponent of a code change proposal to indicate if the proposal will increase or will not increase the cost of construction. Therefore, having a transparent cost effectiveness methodology that all participants can use and refer to, including defined cost inputs, will be of great value to the code development process.

As such, we believe that DOE should make determinations on the appropriateness and sufficiency of its cost effectiveness methodology based on its own legally mandated and policy considerations, as well as comments from the various public and private sector participants in the code development process, who are in a better position to evaluate the proposed methodology.

5. How DOE's methodology should evolve in response to changing economic and social conditions

ICC believes that DOE's methodology should be informed both by its legal authority and the comments and input of the regulated community, as well as by the public officials and entities that rely upon model building codes as a means to insure minimum levels of building performance within the areas of their jurisdiction and authority.