

January 11, 2021

To: International Code Council Board of Directors  
From: Christopher Perry  
Subject: Comments on IECC Using ICC Standards Process

The American Council for an Energy-Efficient Economy (ACEEE) is a nonprofit research organization that has long been involved in the International Energy Conservation Code (IECC) development process. On November 20, 2020 the ICC Long Term committee passed a proposal recommending that the ICC Board replace the IECC with a standard. On December 18, 2020 the Board requested public input on the proposed change. ACEEE appreciates the ICC Board's decision to move forward with providing a brief opportunity for allowing stakeholder input to help shape this potential major change.

The ICC has not yet issued a complete proposal for a standards development process for an IECC equivalent. Without details it is difficult to evaluate the concept. If the ICC Board decides to proceed, ACEEE urges it to issue a detailed proposal for public comment and use all stakeholder feedback to evaluate whether the proposed standard will accomplish its goals before making a final decision. This document outlines ACEEE's initial comments on what should be part of such a proposal. It should not be taken as support for the proposed change to a standard. As many others have stated, the existing IECC codes process has resulted in substantial energy savings, and it is unclear if this change can replicate those successes.

### **Timing**

Any change of this magnitude should be undertaken carefully and deliberately. Since the standards process does not end with an online vote of code officials, this change will greatly reduce the input of the majority of the ICC's governmental member voting representatives on the code. Although the standards process may improve some aspects of the IECC process, it is important to acknowledge that it would be at the expense of many people who traditionally participate in the development of the IECC, including building code officials, sustainability officials, and energy officials. If the ICC decides to proceed with such a major sacrifice, it should ensure that the change from a code to a standard will improve the IECC, not make it worse. If the ICC is unable to make an effective shift in a reasonable time for the 2024 IECC code cycle, then this change should not be implemented until a later cycle to allow for adequate planning and preparation.

### **Clear Mission and Goals**

An IECC standard must have a clear mission statement and goals. For example, ASHRAE's website states the organization's mission as, "To serve humanity by advancing the arts and sciences of heating, ventilation, air conditioning, refrigeration and their allied fields" and its vision as, "A healthy and sustainable built environment for all."<sup>1</sup> In addition, former ASHRAE 90.1 chair Drake Erbe stated in a 2020 webinar, "It is the overall goal of each version of Standard 90.1 to create a consensus standard

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<sup>1</sup> [www.ashrae.org/about/mission-and-vision](http://www.ashrae.org/about/mission-and-vision)

that saves energy and is technically feasible and cost effective.” ASHRAE’s Board of Directors also approved specific energy reduction goals in the Standard 90.1 and 189.1 Energy Target Direction, and the 90.1 committee adopts internal targets for each revision.

We believe that crafting a mission and vision statement for the IECC, as well as criteria for changes and goals for each revision, would help ensure the committee shares the same goal and framework. Certainly, the IECC should try to achieve all technically feasible and cost-effective energy savings in order to meet the needs of its governmental members that adopt the code. We also believe that the ICC should craft an even stronger mission for the IECC by including goals that align with state and local policy priorities such as “achieving zero energy and carbon buildings by 2030” (similar to ASHRAE’s goal) and “increasing building and grid resilience.” The ICC should also adopt a clear process for the committee to follow in setting goals in line with the mission.

### **Makeup of the Committees**

ACEEE’s top priority if ICC proceeds with this change is ensuring that the IECC committee or committees<sup>2</sup> are balanced so that cost-effective energy efficiency proposals can pass. ANSI defines two important terms relevant to ACEEE’s comments pertaining to committee makeup:

***Lack of Dominance:** The standards development process shall not be dominated by any single interest category, individual or organization. Dominance means a position or exercise of dominant authority, leadership, or influence by reason of superior leverage, strength, or representation to the exclusion of fair and equitable consideration of other viewpoints.*

***Balance:** The standards development process should have a balance of interests. Participants from diverse interest categories shall be sought with the objective of achieving balance. If a consensus body lacks balance in accordance with the historical criteria for balance, and no specific alternative formulation of balance was approved by the ANSI Executive Standards Council, outreach to achieve balance shall be undertaken.<sup>3</sup>*

In other words, committees must contain an even and fair mix of interested parties, and not be too heavily weighted in one party’s favor.

In the *ICC Consensus Procedures* document, which follows ANSI guidelines, the ICC outlines a list of types of committee members, and states, “No single interest category should constitute more than 1/3 of the membership of any committee.”<sup>4</sup> Using the ICC’s categories, ACEEE suggests the following example of the types of users that should be considered for balanced IECC committees:

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<sup>2</sup> It is currently unclear if the IECC will contain one committee or several committees.

<sup>3</sup> [www.ansi.org/american-national-standards/ans-introduction/essential-requirements](http://www.ansi.org/american-national-standards/ans-introduction/essential-requirements)

<sup>4</sup> [www.iccsafe.org/wp-content/uploads/Revision-of-ICC-Consensus-Procedures\\_2-of-2\\_revised-12.6.18B.pdf](http://www.iccsafe.org/wp-content/uploads/Revision-of-ICC-Consensus-Procedures_2-of-2_revised-12.6.18B.pdf)

<b>Interest category</b>	<b>May include</b>
Manufacturer	HVAC, lighting, water heating, and building envelope manufacturing representatives or trade associations
Builder	Architectural and engineering firm consultants and contractors, builders, builder trade associations
Standards Promulgator/Testing Laboratory	ICC representatives, ASHRAE representatives, national government laboratories
User	Architects, energy efficiency consultants, low-income housing owners
Utility	Utilities, state regulators
Consumer	Consumer representative
Public Segment	Energy efficiency research and advocacy organizations, university researchers, independent experts
Government Regulator	Building code officials, city and local government officials including sustainability directors, state energy officials, U.S. Department of Energy
Insurance	Insurance companies

If there are roughly nine categories of interests, 1/3 in any category is too much and instead a much lower cap per category should be set.

To pass a proposal through an ANSI process, a 2/3 vote is required. Therefore, committees must be comprised of members that actively support energy efficiency and sustainability (the mission of the committee) to make reasonable progress in the standard each cycle. A committee with greater than 33% of members representing groups that most often oppose efficiency-related proposals (e.g., certain homebuilders, certain trade associations, etc.) will result in perpetual gridlock, which will produce standards that do not meaningfully advance efficiency beyond the 2021 IECC in subsequent cycles. Such a halt in progress would be unacceptable to the users of the IECC representing cities and states using building codes as one method to achieve their climate and carbon reduction goals.

More directly, ACEEE is primarily concerned about a homebuilder and homebuilder-aligned majority, particularly in a residential committee or subcommittee, which could create a group dominated by anti-efficiency and anti-sustainability representatives. As a simplified example, if a 9-person committee included a trade association representative from the National Association of Homebuilders (NAHB), a testing laboratory representative from NAHB's Home Innovation Research Labs, and a producer representative that is a contractor closely aligned with the homebuilders, then homebuilders would effectively represent 33% of the committee before considering a diversity of other members. A committee such as this, although it may appear balanced to outsiders, would be dominated by one party that almost completely opposes energy efficiency and sustainability improvements in the code, and thus could not achieve its mission. This homebuilder-aligned voting bloc would have the power to veto all significant efficiency proposals, and the committee members' time would largely be wasted. Additionally, if the committee included a representative from the American Gas Association (AGA) or American Public Gas Association (APGA), which generally oppose efficiency measures that might favor

electric equipment, including those that reduce greenhouse gas emissions, then the committee would be further cemented as unbalanced in favor of anti-efficiency and anti-sustainability members.

To achieve a committee that works it is important both that the balance of categories reflect a range of expertise and that individual members within the categories support the energy-saving mission of the IECC. Industry interests include architects, engineers, or contractors that specialize in energy-efficiency projects, and manufacturers of energy-saving equipment, as well as green home builders. Governmental members should include sustainability directors and energy officials. Additionally, the committee should reflect that the IECC is the basis for government regulation, not just a technical standard—the regulated entity (the home builders and building contractors) must not be able to block improved regulations, and the governmental members that adopt the regulations should have weight in their development.

### **Makeup of the Subcommittees**

Subcommittees should be used to vet and develop proposals, which are then brought to the main committee. Using ASHRAE 90.1 as a model, these subcommittees could include lighting, envelope mechanical, and energy cost budget (ECB). Subcommittee membership should be given the same consideration to balance as the full committee. A balanced subcommittee is extremely important to allow credible proposals to move forward for full committee consideration.

### **Relevant Cost-Effectiveness Criteria**

Developing and using fair and reasonable cost effectiveness criteria is an important consideration. At a minimum, the IECC could replicate ASHRAE 90.1's "cost-effectiveness criteria based on standard engineering economics using a "scalar" method."<sup>5</sup> However, ACEEE urges the ICC to consider including additional metrics that account for the differences in the time of use of energy, to account for the value provided by distributed energy resources (DERs) like energy storage and grid-connected devices. Such metrics have been developed by the Pacific Northwest National Laboratory (PNNL) for ASHRAE standard 90.1 and 189.1. The committee should be expected to adopt cost-effective energy-saving measures unless they are demonstrated to be infeasible.

### **Technical Expertise**

The development of a standard requires deep technical analysis. Similar to ASHRAE subcommittees, IECC subcommittees should include technical consultants from government labs, such as PNNL. These consultants are typically nonvoting members that leverage their organization's technical expertise, modeling capabilities, and other skills to provide crucial support to help develop complex proposals. Such analysis has been critical to the IECC as well as 90.1, including the development of a comprehensive commissioning informal appendix and the ongoing work to evaluate different options for energy credits in ASHRAE 90.1.

We appreciate the opportunity to provide feedback on the proposed change to the IECC development process. Thank you for your consideration.

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<sup>5</sup> [www.csemag.com/articles/achieving-compliance-with-ashrae-90-1/](http://www.csemag.com/articles/achieving-compliance-with-ashrae-90-1/)

Sincerely,

A handwritten signature in blue ink, appearing to read "Chris Perry". The signature is fluid and cursive, with a large initial "C" and a long, sweeping underline.

Christopher Perry  
Manager of Codes and Standards  
American Council for an Energy Efficient Economy