Mike Pfeiffer  
Senior Vice President of Technical Services  
International Code Council  
500 New Jersey Avenue, NW  
6th Floor  
Washington, DC 20001

[via email]

RE: Comments to the International Code Council Appeals Board 2019 Regarding the Group B Code Changes – RE126, RE147, and CE 217 Parts I and II

Dear Mr. Pfeiffer,

On behalf of NRDC (Natural Resources Defense Council) and its more than 2 million members and online activists, we submit the following comments for consideration by the Code Council Appeals Board. We also request to participate in and present information at the Appeals Board hearings to be held on August 31, September 3, September 10, and September 14, 2020. We appreciate the opportunity to comment.

Overview

In these comments, NRDC will discuss the proposal-specific appeals of the 2021 International Energy Conservation Code (IECC), filed on proposals RE126, RE147, and CE217 Parts I and II. A subsequent set of comments will focus on the appeals related to the International Code Council (ICC) bylaws and policies.

In short, the arguments of the appellants are largely without merit and do not meet the requirements laid out by the ICC to be considered in the appeals process. ICC followed proper procedures to develop the 2021 IECC. The legal arguments claiming issues of federal preemption are entirely inappropriate to be considered in the appeals process, both because they deal with technical matters and because the ICC Appeals Board is not a legal body. The issues related to scope and intent have been decisively determined by the vote of the governmental members. Therefore, the vote of the body must stand and these appeals should be dismissed.

The ICC follows bylaws and policies to develop its codes. The code development process is laid out in Council Policy (CP) #28-05. The appeals process follows CP #1-03. NRDC has been deeply involved in the process to develop the IECC for many years, and was heavily engaged in developing the 2021 IECC. NRDC was the proponent of two of the proposals being appealed. As such, we have “direct and materially affected interests in the matter being appealed,” as described in CP #1-03, section 6.1.
In recent years, the ICC has taken important and productive steps to expand participation in the code development process, most notably with the addition of online voting for governmental members, first put into place for the IECC in the 2015 code development cycle. Participation by local and state officials in the development of the 2021 IECC was unprecedented: many proposals received more than 1,000 votes in the online voting period. In contrast, proposals received a maximum of around 70 votes during the in-person public comment hearings. The online voting turnout was also significantly higher in the 2021 code development cycle than in previous years; proposals in the 2018 code development cycle received a maximum of around 450 total votes, with most proposals receiving far fewer.\(^1\)

This increased voter engagement is a very positive development. Local government officials understand the importance of a strong energy code better than ever before. Building energy use has become a key component of city and state climate action plans, and a strong building energy code is a critical policy tool to achieve such goals. Online voting allows government officials to participate equitably: the development of the code is not simply left up to jurisdictions who can afford the time and resources to send the most members to vote in person. Per Article II of the ICC Bylaws, Governmental Members are entitled to 4, 8, or 12 voting members, depending on the population of the jurisdiction.\(^2\) Online voting ensures that each of those voters can have their fair say.

Of course, the success of an online voting process depends on the integrity of the system. Voters must be properly validated to ensure they meet all of the requirements put in place by the ICC, and the process of voting must be secure. The ICC has done a thorough and excellent job to ensure that all eligible voting members can participate in code development in a way that is equitable, secure, and valid. The ICC’s April 2020 Report on the Code Development Process – 2019 Group B Cycle details an extensive validation process, including review by third-party independent auditors, review by the ICC Board-appointed Validation Committee, and ICC Board review and action.\(^3\) Many of the issues presented as appeals were already brought to the attention of the Validation Committee, which decisively determined there were no voting irregularities. Quoting the April 2020 Report (emphasis added):

“On March 20, 2020, the Validation Committee again met and passed the following motion: In accordance with Section 10.1 of Council Policy (CP) 28 and the ICC Bylaws, the Validation Committee reviewed the 2019 Group B Validation Committee Packet during their January 15, 2020, conference call followed by the review of the staff report entitled “ICC Report to the Validation Committee” on their March 20, 2020, conference call. These two calls and review documents related to the 2019 Group B Code development cycle online governmental consensus vote, conducted November 18 – December 6, 2019. Having found no irregularities or concerns material to the outcome of the voting process, the Validation Committee hereby certifies the results of the online governmental consensus vote and confirms a valid voting


The ICC Board subsequently certified the results of the 2019 Group B code cycle.

As we discuss in more detail below and in subsequent comments to be submitted on August 26, 2020, the vast majority of the appeals do not meet the requirements outlined in CP #1-03, section 6, for review by the Appeals Board (excerpted below), and should warrant no further discussion. We request the Appeals Board limit the discussion at the forthcoming hearings to issues that are limited to matters of process and procedure, and reject any appeals that do not meet the requirements of CP #1-03.

6.3.7 Review by the Appeals Board shall be limited to matters of process and procedure. The Board of Appeals shall not render decisions on the relative merits of technical matters.

6.3.8 In order to sustain the appeal, or any part thereof, the Appeals Board must find that there was a material and significant irregularity of process or procedure.

Proposal-Specific Appeals

RE126-19
Proposal Topic
Residential Water Heating

Proposal Proponent
NRDC

Summary of Appeals
This proposal was appealed by the American Gas Association and the American Public Gas Association (AGA/APGA), the National Association of Home Builders (NAHB), and the Air Conditioning, Heating, and Refrigeration Institute (AHRI). The appellants’ concerns focus predominantly on the issue of federal preemption, specifically that the code provisions at issue here are invalid because they are inconsistent with federal efficiency standards. AGA/APGA claims that ICC staff should have ruled this proposal out of order due to preemption concerns. NAHB requests that RE126-19 be rejected by the Appeals Board because it “believes a court is highly likely to find that RE126 is preempted by the Energy Policy and Conservation Act (EPCA) as amended by the National Appliance Energy Conservation Act (NAECA) and the Energy Policy Act of 1992 (hereinafter EPCA).” AHRI makes a number of claims related to preemption, based on the efficiency and design requirements specified in the proposal, and also requests that the Appeals Board disapprove RE126. The Leading Builders of America (LBA) request reversal of twenty proposals including RE126, but only because the final governmental member vote overturned the recommendation of the technical committee. LBA’s arguments will be further discussed in subsequent comments on ICC bylaws and policies, to be submitted on August 26, 2020.
Response

First and foremost, none of the issues raised by AGA/APGA, NAHB, or AHRI constitute a “matter of process or procedure,” as is required by CP #1-03 to be considered during the appeals process. The issues raised are related entirely to technical matters, which the Appeals Board is expressly forbidden from considering per section 6.3.7. Therefore, the Appeals Board should not consider these matters any further.

The interaction of the code with state and local laws is a frequent discussion topic during code hearings, and was discussed and debated extensively for this proposal during the hearings. The ICC is not a court or a legal body; rather, it is a consensus-based standards-setting organization. Proponents and opponents argue for or against proposals during the code hearings, then the voting body determines which arguments they find the most persuasive. RE126 passed the online governmental member vote with 695 votes in favor and 332 votes against. ICC Staff had the opportunity to rule this – or any other -- proposal out of order, as AGA/APGA suggests they should have, yet ICC Staff chose not to do so.

The ICC does not have the power or authority to decide whether something is or is not legal, particularly for an issue as complex as federal preemption. Federal preemption is a legal and technical issue that is clearly outside the scope of the appeals as specified in CP #1-03 and may be outside the expertise of the Appeals Board members. Any legal concerns about preemption would need to be raised and decided by a court of law at the point a model code becomes law – i.e., once it is adopted by a jurisdiction within the United States. (If it is adopted by a province of Canada or a Middle Eastern jurisdiction there is also no legal issue, and the ICC cannot know where the potential adopters are.) Therefore, the arguments made by the appellants are not appropriate to this appeals process and must not be considered as such.

If the Appeals Board decides to consider these appeals, in spite of the fact they are clearly outside the scope of CP#1-03, then we refer the Appeals Board to the legal memo filed by NRDC with the original proposal, attached here as Appendix A. In short, these code changes are not preempted because they still give industry multiple paths to compliance utilizing equipment that meets federal standards. RE126 affects only the prescriptive path of the code, meaning builders that want to use minimally-efficient water heating equipment could do so by following the performance or Energy Rating Index paths of the code. Furthermore, even when following the prescriptive path of the code, builders can comply using minimally efficient tankless water heaters or grid-enabled water heaters, or other minimally efficient products if the home has an on-site renewable energy system. For more detail, please see Appendix A.

---

4 From the ICC Bylaws: [The ICC] is organized under the Nonprofit Public Benefit Corporation Law for public and charitable purposes. Such purposes specifically include: With respect to buildings and structures: (a) the lessening of burdens of government through the development, maintenance and publication of model statutes and standards for the use by federal, state and local governments in connection with the administration of building laws and regulations, and (b) the lessening of the burdens of government through the performance of certain services for the benefit of federal, state and local governments in connection with the administration of building law and regulation.
Legal and Technical Issues Response

In the following section, we provide a brief response to the legal and technical arguments raised by AHRI. Again, we do not believe these issues are germane to the appeals process and they should not be considered by the Appeals Board. The AHRI argument is italicized, with the NRDC response following below:

A. Federal preemption is essential and sound public policy
   NRDC agrees, but only in the context of mandatory use of the IECC within the United States. The IECC is adopted and used internationally.

B. DOE holds exclusive authority to regulate EPCA-covered products
   RE126 does not attempt to regulate EPCA-covered products. The U.S. National Appliance Energy Conservation Act (NAECA) provides that state building codes may include provisions concerning the efficiency of appliances covered by federal efficiency standards if they meet seven specified requirements. RE126 meets those requirements. In addition, RE126 affects just one compliance path of the residential energy code. There are two additional code compliance pathways that have no requirements whatsoever on the types of water heaters used for compliance.

C. RE126 is an appliance standard that violates preemption
   1. The IECC cannot increase federal minimum efficiencies for gas-fired water heating equipment
      RE126 does not increase federal minimum efficiencies. It requires a more efficient gas water heater if a builder chooses to use the prescriptive path, which is one of three code compliance pathways for residential buildings. Furthermore, this is a technical issue that is not appealable.
   2. The IECC cannot prescribe design requirements for federally regulated electric water heating equipment
      RE126 does not prescribe design requirements. A design requirement would change the pre-market design of the federally-regulated equipment, for instance by prescribing the amount of insulation required surrounding the tank. This proposal does not affect equipment design whatsoever. The choice of certain types of equipment may need to be coupled with additional measures, like renewable energy, but that is not an equipment design requirement. That is a post-market requirement and is not affected by federal preemption law. Furthermore, this is a technical issue that is not appealable.
   3. The IECC cannot define “grid-enabled” water heaters differently than Congress
      This is a technical issue that should not be considered in the appeal process. At its heart, this is a question of semantics. It invites post facto criticisms of what definitions are acceptable and which definitions are not, and whether it is preferable to reference existing definitions or develop definitions unique to the IECC. In this case, this issue has been settled by the voting membership. In the 2018 code cycle, NRDC proposed to define “grid enabled” to be consistent with the statutory language, and received
feedback through the code development process that it was inappropriate to use statutory language in a code, hence our intentional decision to propose a broader definition for the purpose of the IECC. This is not a matter of process or procedure.

4. **Solar water heating is an EPCA-covered product**
   This is not an issue of process or procedure.

D. **RE126 does not meet the expectations of EPCA’s preemption provisions as alleged by NRDC**

   These are legal and technical arguments that are wholly inappropriate to be considered in the appeals process.

   However, we must address AHRI’s claim that RE126 “eliminates federally compliant products from the market.” It does not. According to data from the U.S. Census bureau, there were approximately 83 million existing single family homes (attached and detached) in the country as of 2018, the most recent year for which data is available. In that same year, there were approximately 875,000 new single family housing starts, which equates to 1 percent of the total single-family housing stock. RE126 affects only the prescriptive compliance path of the code, meaning any new home built to the performance or Energy Rating Index paths of the code may use any minimally efficient water heater. The vast majority of existing homes has a water heater which will need to be replaced on a regular basis, and can be replaced with any product that meets the federal minimum standard. Therefore, RE126 does nothing to impact the water heater market for more than 99 percent of the country’s housing stock.

---

**RE147-19**

**Proposal Topic**

Residential electrification readiness

**Proposal Proponent**

NRDC

**Summary of Appeals**

This proposal was appealed by AGA/APGA, NAHB, and LBA. AGA/APGA and NAHB claim that RE147 does not meet the “intent” of the energy code. LBA claims the proposal is beyond the scope of the IECC.

**Response**

The issues of intent and scope are related but not identical.

---


6 [https://www.census.gov/construction/nrc/historical_data/index.html](https://www.census.gov/construction/nrc/historical_data/index.html)
Intent
The issue of whether a proposal meets the intent of the IECC is not a “matter of process or procedure," as is required by CP #1-03 to be considered during the appeals process. Whether or not a proposal fits within one party's view of the intent of the code is a substantive issue which is not appealable. The intent of the code (in this case IECC section R101.3, excerpted below) is not static: it is a feature that can be changed just like any other part of the code, through the consensus process. The issue of whether or not the voting membership felt this proposal meets the intent of the code was laid to rest by the overwhelmingly supportive governmental member vote, with 874 votes in favor and 302 votes against. Therefore, the Appeals Board should not consider the issue of intent raised by AGA/APGA and NAHB any further.

R101.3 Intent. This code shall regulate the design and construction of buildings for the effective use and conservation of energy over the useful life of each building. This code is intended to provide flexibility to permit the use of innovative approaches and techniques to achieve this objective. This code is not intended to abridge safety, health or environmental requirements contained in other applicable codes or ordinances.

If the Appeals Board decides to consider the intent-related appeals, in spite of the fact they are clearly outside the scope of CP#1-03, there are a number of reasons why this proposal clearly meets the intent of the code. The purpose of RE147 is to ensure that a home constructed using natural gas equipment is easily able to switch to electric equipment at some point in the future, should that become desired or necessary. The useful life of a residential building can be 50-100 years or more. The fact that energy use will look very different in that timeframe is not speculative, as the appellants claim: cities and jurisdictions are already considering policies that will make natural gas and other fossil fuels more expensive or obsolete in the future. Two dozen states have pledged to reduce their economy-wide carbon emissions by specific target years. Six of those states – California, Hawaii, Maine, Nevada, New York, and Colorado, plus Washington D.C. - have legislatively-mandated requirements or plans for economy-wide carbon reductions of 90 percent or greater, across their entire economy.

Such goals simply cannot be achieved without addressing fossil fuel use in buildings, and current and forthcoming policies will reflect that. With such rapidly changing policies, the options are either to prepare new buildings ahead of time for this future reality through a modern and forward-looking energy code, or subject homeowners to significantly higher costs and inconvenience at a later date. Changes in technology and policy are exactly why the energy code is updated on a three-year basis. Ignoring the broader realities of a changing world is counterproductive and will make the cost of homeownership more expensive over time.

Furthermore, electrification conserves fossil fuel resources, and will continue to do so as the electricity grid becomes powered by increasing amounts of renewable energy. Even with today’s electricity grid

---

8 [https://www.nrdc.org/resources/race-100-clean](https://www.nrdc.org/resources/race-100-clean)
mix, less gas is used to create electricity than to meet the same need with direct on-site combustion, which clearly conserves energy. RE147 meets the intent of the IECC because it is an innovative approach to address how residential buildings use energy over the useful life of the building.

Scope

CP #28-05, section 1.3 states that “The ICC Board of Directors (ICC Board) shall determine the title and the general purpose and scope of each Code published by the ICC.” The scope of the residential sections of the IECC is specified in body of the code:

R.101.2 Scope. This code applies to residential buildings and the building sites and associated systems and equipment.

RE 147 clearly applies to residential buildings and the equipment within those buildings, so it is unequivocally within the scope of the IECC.

Issues of scope were raised during the code validation process, and the ICC’s April 2020 report states that, “Further assessment of scope is not part of the validation process but is subject to appeal in accordance with Section 12.1 of CP 28.” Questions about the scope were raised during the code hearings, but there was no indication from ICC Staff that they had any concerns about the proposal being out of scope of the IECC. In previous code cycles, any proposals which ICC Staff felt may be out of scope were specifically noted as such. In the 2018 IECC development cycle, the following disclaimer was prominently displayed on proposals that Staff felt may have had a scope that overlapped with the International Plumbing Code (including CE170-16, CE175-16, and CE247-16):

“This code change proposal addresses the scope and application of the International Energy Conservation Code and the International Plumbing Code. The action taken by the Commercial Energy Conservation Code Committee on this proposal coupled with the final action taken at the 2016 Public Comment Hearings and subsequent Online Governmental Consensus Vote will be limited to an advisory recommendation to the ICC Board of Directors who will determine the final disposition on this proposed change in accordance with Section 1.3 of CP28, which stipulates that the ICC Board of Directors determines the scope of the I-Codes.”

No such disclaimer was included on RE147 at any stage of the code development process, nor was there any indication from ICC Staff that these proposals should be heard in the processes to develop the International Residential Code or National Electric Code (NFPA 70), as NAHB suggests. LBA provides no further support or justification for its statement that “RE147 is completely beyond the scope of the IECC,” and therefore have not met any burden of proof that the decisive vote of the membership should be overturned.

---

9 https://rmi.org/its-time-to-incentivize-residential-heat-pumps/
CE217-19, Parts I and II

Proposal Topic
Electric vehicle charging infrastructure

Proponent
Southwest Energy Efficiency Project

Summary of Appeals
This proposal was appealed by AGA/APGA, NAHB, and LBA. AGA/APGA and NAHB claim that CE217 Parts I and II does not meet the “intent” of the energy code. LBA claims the proposal is beyond the scope of the IECC.

Response
NRDC defers to the proponents of CE271 Parts I and II, and co-signs their comments in support of this proposal. In addition, the entirety of our response to the appeals related to RE147 applies to CE217 as well.

If the Appeals Board decides to consider the intent-related appeals, in spite of the fact they are clearly outside the scope of CP#1-03, there are a number of reasons why CE217 clearly meets the intent of the code. The purpose of CE217 is to ensure that homes and buildings constructed today have the proper infrastructure for electric vehicle charging. Residential buildings have a lifespan of 50-100 years; commercial buildings tend to be in use for more than 25 years (often significantly longer).\(^\text{10}\) There is no doubt that the shift to electric vehicles – and critically, the impact of that energy use on the buildings where these vehicles are charged – is fundamental to the energy use over the useful life of the building. Again, there is nothing speculative here. Two dozen states, as referenced above, are working to reduce economy-wide carbon emissions, which encompass the transportation, industry, and buildings sectors.\(^\text{11}\) Electric vehicles are a critical component to achieving such a goal, and the energy to charge those vehicles is inextricably linked to buildings. As with residential electrification readiness, the option is either to prepare new buildings ahead of time for this forthcoming reality, or subject homeowners and business owners to significantly higher costs and inconvenience at a later date. CE217 meets the intent of the IECC because it is an innovative approach to address how residential and commercial buildings use energy over the useful life of the building.

Conclusion
The arguments made by the appellants against RE126, RE147, and CE217 Parts I and II do not meet the requirements laid out by the ICC to be considered in the appeals process. The arguments presented are


\(^\text{11}\) [https://www.nrdc.org/resources/race-100-clean](https://www.nrdc.org/resources/race-100-clean)
largely without merit. The ICC followed proper procedures to develop the 2021 IECC. The legal arguments claiming issues of federal preemption are entirely inappropriate to be considered in the appeals process, both because they deal with technical matters and because the ICC Appeals Board is not a legal body. The issues related to scope and intent have been decisively determined by the vote of the governmental members. Therefore, the vote of the body must stand and these appeals should be dismissed.

Sincerely,

Lauren Urbanek
Senior Energy Policy Advocate
Appendix A: Legal Memorandum Concerning NRDC’s Proposed R403.5.1 and the National Appliance Energy Conservation Act

Originally submitted in January 2019, supplemental to the reason statement of proposal RE126-19

Introduction

The Natural Resources Defense Council (NRDC) proposes the addition of R403.5.1 to Chapter 4 of the 2021 International Efficiency Conservation Code (IECC). The proposed addition prescribes six types of water heaters which may be installed by builders in order to comply with the prescriptive compliance pathway of IECC Chapter 4. Some commenters on similar past proposals expressed concern that such a provision would be preempted by the National Appliance Energy Conservation Act, which amended the Energy Policy Conservation Act and set up the energy efficiency standards program for appliances, including water heaters. This is not the case. The proposed code addition comports with the federal statutory provision for building codes because it does not require installation of water heaters that exceed the current federal minimum level.

Legal Analysis

As explained in greater detail below, the issue is whether these proposed additions would effectively require builders to use products that are more efficient than required by federal efficiency standards and thus would trigger preemption. Because they do not there is no preemption concern here.

The National Appliance Energy Conservation Act provides that state building codes may include provisions concerning the efficiency of appliances covered by federal efficiency standards if they meet seven specified requirements. Commenters in the past expressed concern that the provision would not meet two of these requirements: Sections 6297(f)(3)(B) and 6297(f)(3)(E). The basic requirement of these two provisions is that the building code not require use of an appliance more efficient than the level set by the Department of Energy under the Act.

The first of these focuses on the code as a whole. It states, in relevant part, that the code may not “require that the covered product have an energy efficiency exceeding the applicable energy conservation standard … .” The second provision concerns building codes that offer optional combinations of items. Our proposed changes easily satisfy this provision because, as discussed below,

---

12 This memorandum is submitted as an attachment to NRDC’s July 21, 2016 proposed amendment.
14 It is not clear whether the optional “combinations of items” applies to the prescriptive pathway at all. 42 U.S.C § 6297(f)(3)(E). Assuming that it does, we believe the relevant “combination” would be the combination of each of the different water heater options and the rest of the prescriptive options. The
four of the six options do not involve products that exceed existing federal standards. (A fifth option may not require a standard-exceeding product depending on the first hour rating of the water heater.)

The presence of some more efficient options does not trigger preemption. In interpreting these provisions, the Ninth Circuit Court of Appeals has recognized that “a builder is not ‘required’ to select a [more efficient] option . . . simply because there is an economic incentive to do so.”\textsuperscript{15}

The proposed amendment would be not preempted because it allows installation in new residential buildings of minimum-efficiency water heaters. The statutory preemption test focuses on the “covered product,” which is defined in this case as water heaters.\textsuperscript{16} Thus, a building code is not preempted so long as it does not require installation of a covered product – in this case a water heater – that is above the minimum efficiency level. The proposed amendment plainly does not do so for several reasons. First, the performance path (Section 405) and the Energy Rating Index path (Section 406) focus on overall energy use and include no water heater requirements at all.

Second, even just considering the prescriptive pathway, the proposed amendment still does not require use of a water heater that exceeds minimum federal standards. The proposed amendment allows builders to select any of the six prescribed types of water heaters, at least two of which clearly do not exceed the federal requirements: tankless water heaters (R403.5.1.4) and grid-enabled water heaters (R403.5.1.5). For tankless water heaters, the proposed code amendment contains no minimum efficiency standard and thus the federal standards would apply.\textsuperscript{17} For grid-enabled water heaters, the proposed code complies with the federal provision.\textsuperscript{18} As such, builders can comply with the standard by using water heaters that meet, but do not exceed, federal efficiency standards. Indeed, even if these minimum efficiency options were not available, the prescriptive path would still not “require” use of higher efficiency water heaters since any type of water heater can be used under the prescriptive approach if combined with other options such as a solar water heater.\textsuperscript{19}

The proposed amendment is also similar to existing building code provisions. The prescriptive compliance path in California’s 2016 building code, for instance, requires installation of either gas/propane instantaneous water heaters or gas/propane storage type water heaters in new residential

\textsuperscript{15} Building Industry Ass’n of Wash. v. Wash. State Bldg. Code Council, 683 F.3d 1144, 1151 (9th Cir. 2012).

\textsuperscript{16} 42 U.S.C. § 6292(a)(4).


\textsuperscript{18} Id.

\textsuperscript{19} See Building Industry Ass’n of Wash., 683 F.3d at 1151.
dwellings.\textsuperscript{20} California’s prescriptive compliance path allows use of certain minimum efficiency water heaters but does not allow use of every type of minimum efficiency water heater. Like the proposed code, the California code allows builders to choose an alternate compliance path, which allows use of any water heater.\textsuperscript{21}

\textit{Conclusion}

The core requirement for a building code to avoid preemption is that it not require above-minimum efficiency appliances. This requirement is met by the NRDC proposal because the proposal offers multiple ways that minimum efficiency water heaters can be used under both the prescriptive and performance pathways.
