February 13, 2026

NBI Comments on the Revised 2030 IECC and IECCX Scope and Intent

On January 15th, 2026, the International Code Council (ICC) Board published the Draft Scope & Intent for the 2030 International Energy Conservation Code (IECC) development cycle, including the cost benefit analysis requirements. The Draft Scope & Intent outlines what shall be considered in scope for the code and establishes a framework for how interested parties will engage with and develop proposals to modify the 2027 IECC. Notably, in this draft the ICC Board proposes splitting the IECC in two with the introduction of the IECC-Expanded (IECCX), which "may include optional or mandatory provisions incorporating additional energy efficiency and greenhouse gas reduction resources and provisions that lead to advancement of zero energy buildings."

New Buildings Institute (NBI) has serious concerns regarding the Draft Scope & Intent for the IECC 2030 code. If the energy code is split into two code books with separate development processes and committees, as proposed, meaningful participation from a broad range of stakeholders will be made prohibitive by fragmenting efforts and creating a process that is overly burdensome for users and interested parties to participate in. Most importantly, this will disenfranchise governmental and building office officials who already struggle to engage in the code development and committee processes.

Many organizations in the "G – Public" Interest Category, including NBI, are losing confidence in the process and the products, given the continually moving goalposts, shifting scope, and burdensome development process that has been modified repeatedly over past code cycles, continuing into 2030. Given our experience and deep relationships with states and jurisdictions adopting the IECC and those interested in advanced energy and carbon policies, the elimination of core building energy management strategies and technologies from the IECC and the lack of direction towards advanced energy and carbon performance targets in the IECCX, the proposed Scope & Intent for 2030 will fall well short of meeting the needs of jurisdictions looking to adopt either code.

NBI has hosted several roundtable discussions with jurisdictions, energy advocates, and industry stakeholders, and through these a common sentiment has emerged that it will not be worthwhile, productive, or tenable to engage in separate committees to develop the newly envisioned IECCX. As such, NBI's core position is that the ICC should retain all energy-related provisions within one code book developed through IECC consensus committees. Our comments are primarily organized around that position.

NBI's recommendations address several primary concerns regarding the 2030 IECC Draft Scope and Intent. Our recommendations are as follows, and the related concerns are detailed below.

1. **The scope of the IECC should be developed through the consensus committee process or allow topics included in the 2024 and 2027 codes.**

The most qualified parties to determine the Scope and Intent of the IECC are the users and industry stakeholders who engage directly with code development, adoption, implementation, compliance, and enforcement. As such, the Scope and Intent should be developed through a transparent and accountable consensus process led by these parties. Short of this, the scope should allow topics included in the last two code cycles in which renewable energy, electric energy storage, demand response, and grid interoperable technologies – essential tools which contribute to efficient and cost-effective management of building energy, enhance building- and grid-level energy resilience and reliability, and advance energy affordability – are permitted. The proposed scope weakens the code by removing commercial solar requirements, kneecaps a key policy tool for jurisdictions to manage electric grid load growth, and is in direct conflict with building energy resilience. NBI supports the addition of explicitly allowing embodied carbon provisions as appendices, which will settle an important scoping question that has caused confusion and disagreement for several cycles.

2. **IECCX should be structured as an integral element of the existing IECC (as an overlay, appendices, compliance path, etc.) and be developed through IECC consensus committees and subgroups. Additionally, the IECCX should have explicit goals towards emissions reductions and advanced energy performance.**

The proposed bifurcation into two code books creates several challenges; not least of which are the increased time burden for interested parties to engage in the development process, the disenfranchisement of building officials and departments due to these time burdens, and increased barriers to adoption for jurisdictions. Structuring the IECCX as an integral element of the IECC, developed through the two standing consensus committees, addresses some of the time burdens and adoptability challenges. Additionally, as scoped, the IECCX has no goals towards advanced energy and carbon performance – it is merely allowed – so it is unclear who this code book and structure is intended to serve, or why interested parties, including energy and climate advocates, would dedicate time to a directionless effort.

3. **The cost effectiveness approach should be developed through the consensus committee process.**

The most qualified parties to determine the cost effectiveness approach are the professionals and industry experts working in design, construction, manufacturing, adoption, implementation, and enforcement. As such, the cost effectiveness approach should be developed through a transparent and accountable consensus process led by these parties, as has historically been done successfully. The use of tenant and owner tenure-based simple payback periods is divorced from established, tested, and trusted approaches. The proposed approach prioritizes first costs over

long-term affordability, and favors energy payback to the first buyer over long-term durability, reliability, and affordability of the building and systems for future owners and occupants.

4. **The IECC should reference the 2023 EPA Report for the Social Cost of Carbon as what is used to evaluate any decarbonization impacts, or include public health cost impacts of energy.[1]**

Social cost of carbon is an essential tool for evaluating the cost effectiveness of decarbonization measures. Referencing reputable research for where social cost of carbon is referenced will prevent discussion into discount rates and methodology from derailing otherwise productive conversations about the effectiveness of decarbonization measures. Alternatively, the public health costs of fuel combustion and electricity generation should be included by evaluating the health impacts of criteria pollutants associated with building energy use. This would support the evaluation of full-scope costs associated with building energy use, and a trajectory towards a holistic lens of affordability.

5. **The ICC Board should have a transparent process for establishing the Scope and Intent, make public all comments, and publish the written responses and justification for responses to comments on the Draft 2030 IECC Scope and Intent.**

The current process for revision of the Scope and Intent of the IECC Standard lacks transparency, opportunities for public review, and accountability of decision-making to stakeholders. We strongly recommend incorporating into the Scope and Intent revision process a substantive level of transparency whereby public comments are formally considered and responded to by the Board. It would greatly assist the quality of the revisions if there were an open forum or ad hoc committee including code officials from impacted jurisdictions. This would extend member input beyond those pre-selected by the Board, and that body could make recommendations on Scope and Intent issues for IECC. This is essential to maintaining trust and integrity in the IECC standard and the process to develop it.

[1] U.S. Environmental Protection Agency. EPA Report on the Social Cost of Greenhouse Gases: Estimates Incorporating Recent Scientific Advances November 2023. https://www.epa.gov/system/files/documents/2023-12/epa_scghg_2023_report_final.pdf

Concerns

Our recommendations, listed above, address the following concerns.

1. Prohibitive time commitment for engaging in the code development process

A chorus of voices from consensus committee members and interested parties, especially from building office officials, has pointed out the enormous time commitment needed to participate in each of the last two development cycles. The result is that the process heavily favors interested parties who have the time and dedicated funding to support the major time commitment. The draft 2030 IECC Scope and Intent suggested that adding two more consensus committees would result in a lower time commitment for each consensus committee. Despite this suggestion, the time and effort burden of tracking and engaging in both processes will present the greatest challenge for building officials, who must fulfill this role on top of their already demanding regular job requirements. The ICC already had difficulty recruiting sufficient government members to staff two consensus committees for the 2027 development cycle. This challenge would compound if the IECC moves forward with four consensus committees. Additionally, if the ICC were to reduce the percentage requirement of government members on the consensus committees to form four viable committees, it would give increased weight to special interests with dedicated funding. This creates the worrisome prospect of a development process that does not address the needs and priorities of adopting states and jurisdictions throughout the US.

2. Adoptability of IECCX

Many states are required by statute to review and/or adopt the IECC. As currently proposed, the IECCX would likely not be adoptable by states that are required to use the IECC. If the IECCX moves forward as proposed, each impacted state would need to review how the IECC is referenced in state statute and potentially modify legislation/statute to consider it for adoption. This is a significant political undertaking, and, at a time when the ICC already changes direction every three years, there is little confidence that any updated legislation would be durable to the whims of the ICC Board. While some states required to review and adopt the IECC could potentially borrow measures from the IECCX as amendments, such a process would present significant additional hurdles for adoption, since the proposed structure of the IECCX is not as an overlay, but as a standalone code book.

3. Removal of renewable energy and electric energy storage measures from the IECC

The 2024 IECC and the 2027 IECC Scope and Intent statements allow decarbonization and other energy-related measures including renewable energy generation, electric energy storage, and demand responsive and load management systems, for both commercial and residential codes, as optional credits and appendices/resources. Additionally, the 2024 IECC and the 2027 IECC public comment draft require mandatory commercial renewable production (with exceptions) as well as a credit minimum in C406 for non-efficiency (including the renewable and load management)

measures. These energy-related measures, allowed in 2024 and 2027, should remain because they support critical national goals of grid reliability and security. The North American Electric Reliability Corporation's (NERC) mission is "to assure the effective and efficient reduction of risks to the reliability and security of the grid." NERC issues an annual assessment of the seasonal and long-term reliability of 20 electric grids in North America. In the 2024 Long-Term Reliability Assessment, only one grid region was identified as "high-risk," while 10 more were "elevated risk." Just two years later, the 2026 report identified five areas as "high-risk" while eight more were "elevated risk."[2]

Research by Deloitte illustrates the impressive degree to which residential distributed energy resources (DERs) can meet peak demand growth on the electric grid over the next 10 years – but also acknowledges the need for coordinated action across utilities, codes, and agencies delivering supportive energy policies. On-site renewable generation, electric energy storage, and demand response and grid-interoperable systems are critical to building-level energy performance and resilience and contribute to grid-level reliability.[3] Removing these energy topics from the IECC would be deleterious to the nation's progress in grid reliability and energy security. Furthermore, these are well-established market-ready technologies that are rapidly increasing in market adoption. They do not present any unreasonable challenge or burden to adopting jurisdictions.

4. Limitations on the base code language

The proposed scope of the IECC Expanded (IECCX) largely contains the scope for the 2024 and 2027 versions of the IECC, with the addition of allowing embodied carbon provisions in appendices. In effect, this would result in a drastically reduced IECC, with a wide range of important energy topics moved out of the IECC. We strongly believe that all jurisdictions are entitled to an energy code that is comprehensive and coordinated, rather than being reduced to very limited base code language with myriad appendices. Furthermore, the proposed scope of IECCX is in no way *"expanded"* from the established scope of the 2024 and 2027 IECC. The current scope of IECC-Commercial already allows for mandatory renewables and a minimum number of load management credits. There are also existing appendices addressing electric and solar readiness, demand response, grid-interoperability, electric energy storage, and renewables.

The deviations between the topics scoped for the main body of the IECC and IECCX are noted below:

Measure Type	Main Body

[2] 2025 Long-Term Reliability Assessment. NERC. Jan 23, 2026. https://www.nerc.com/globalassets/our-work/assessments/nerc_ltra_2025.pdf

[3] "Households transforming the grid: Distributed energy resources are key to affordable clean power: Distributed energy resources like solar panels, EVs, and smart thermostats can help utilities meet rising peak demand and decarbonization goals to achieve net-zero electricity." Deloitte Energy & Industrials. 12 June 2024. https://www.deloitte.com/us/en/insights/industry/power-and-utilities/der-grid-modernization.html

	IECC	IECCX
Electric Energy Storage	Not Allowed	Allowed as optional credit
Electric Ready Buildings	Not Allowed	Allowed as optional credit
EV/Charging (required or readiness)	Not allowed	Allowed as optional credit
Offsite (renewables)	Not allowed	Allowed
Onsite (renewables)	Not Allowed	Allowed
Operational Carbon Rating	Not Allowed	Allowed
Solar Readiness	Not Allowed	Allowed as optional credit

The effect of the proposed structure of the main body of the code is that the IECCX without appendices is also severely limited in how it addresses energy performance criteria beyond efficiency. The main body allows requirements for zero net energy and decarbonization through onsite and offsite renewables, and operational carbon ratings, but does not allow for more intentional and cost-effective optimization towards zero net energy and decarbonization through mandatory requirements relating to the design and use of electric energy storage, grid interoperability, and demand responsive technologies. Beyond this, all the technologies listed have market-ready applications to lower energy cost and increase energy reliability, regardless of decarbonization priorities and objectives. Limitations on EV charging / EV readiness and electric readiness all decrease lifecycle cost-effectiveness of phased zero net-energy and decarbonization strategies that jurisdictions looking to adopt provisions scoped for IECCX are often implementing.

If the IECCX is intended to meet the needs of jurisdictions looking for greater advanced energy and decarbonization policy tools, it needs to have expressed goals and targets related to advanced energy and carbon performance – not merely allow these measures. To do this, electric and solar readiness, demand response, grid-interoperability, electric energy storage, and renewables should be eligible to be included as mandatory requirements. Adopting jurisdictions looking for a nationally vetted code to meet their advanced energy and climate goals would not find that in IECCX as currently proposed.

5. Alterations to cost-effectiveness approaches in the IECC and IECCX

The Draft 2030 IECC and IECC-Extended Scope and Intent outlines two separate cost-effectiveness approaches for the two codes. IECC measures would be evaluated using only simple payback, while IECCX would use a simplified lifecycle cost analysis (LCCA). This is a deviation from previous development cycles, where the cost-effectiveness approach was determined through consensus process, and overall cost effectiveness for the code is determined by PNNL/DOE analysis and methodology. We hold that the consensus committee development process has been successful for past cycles in reaching industry consensus. It is not clear why the ICC Board deviated from precedent and is dictating the approach for the next cycle, or how the assumptions in the proposed approach were determined.

Simple payback falls short in correctly evaluating the cost and benefits of an energy code measure by excluding cashflows after payback (which could be significant), ignoring the time value of

money, and neglecting the social and environmental implications of a project. Simple payback may provide some insight into the short-term viability of a measure, but when used to analyze long-term investments put into building projects, it will encourage short-sightedness and prohibit broader energy efficiency advancements that provide long-term benefits to and advance energy affordability for building owners and occupants.

The maximum payback period for the cost-effectiveness approach says it references industry average tenures for first-time home buyers and long-term commercial leases. Additionally, many building components in commercial buildings (like those in envelope systems) are not replaced at each tenant turnover. The idea that a building energy efficiency measure needs to be cost-justified by a simple payback within the time period of the average first-time home buyer tenure is in direct conflict with long-term energy affordability. First-time home buyers would typically recoup the costs associated with building systems and components when they sell the property, and the future owner will benefit and see increased energy affordability through increased efficiency. The National Association of Home Builders (NAHB) statistics show that 95% of first-time homebuyers do not buy new homes.[4] The proposed payback structure and tenure-based payback periods create a prioritization of first-cost reductions over long-term energy affordability and lifecycle cost-effectiveness.

The terms of the proposed cost-benefit test are also inconsistent with the well-established life cycle cost-effectiveness historical analysis used by U.S. DOE for IECC and ASHRAE 90.1. ICC's proposed cost-benefit analysis is heavily skewed toward reducing first costs, rather than maintaining building and energy affordability for owners and occupants over the long-term.

6. No social cost of carbon in IECCX, unclear objectives of IECCX, issues with equipment "neutrality," and narrow consideration of energy impacts

As previously stated, the proposed IECCX would not adequately respond to the market's need for an advanced or "expanded" energy code due to the severe limitations on advanced energy criteria in the main body of the code as proposed. Jurisdictions that are looking to adopt an advanced energy standard are largely doing so in pursuit of zero-energy and zero-carbon policy goals – which are largely prohibited from the main body as proposed. Not only does IECCX limit how technologies that support such policy goals can be integrated into the code, but the code itself lacks any clear directive or objective guiding targets. The lack of a stated objective or goal towards advanced energy efficiency, net zero energy performance, or decarbonization, makes it unclear what the IECCX is intended to achieve, and who it is intended to serve. Jurisdictions reviewing the IECCX for potential adoption need to have confidence that the code will meet their policy priorities, either initially or over time. Without a clearly stated objective and goals to work towards through the 2030

[4] National Association of Homebuilders "New and Existing Home Sales Reports." https://www.nahb.org/news-and-economics/housing-economics/national-statistics/new-and-existing-home-sales-reports

and subsequent development cycles, the proposed code will fall short of being applicable to states and jurisdictions looking to exceed IECC.

Beyond the lack of an objective and any performance targets, the proposed code does not allow cost-justification for decarbonization through the use of social cost of carbon (SCC), or consideration of the public health impacts associated with fuel combustion for on-site energy use or electricity generation. This does a disservice to the industry by not providing a framework for evaluating the lifecycle cost consideration of energy criteria that impact energy efficiency, fuel selection, and operational and embodied carbon. SCC and public health costs are essential frameworks through which to weigh the short-term first costs associated with energy measures against their long-term societal costs. This framework functions as a decision-making tool to evaluate and prioritize decarbonization investments, and its absence from the cost-effectiveness approach will undermine industry confidence that code proposals are being evaluated and considered on their true lifecycle economic merits.

The IECC's Commentary and Direction from the Board of Directors states "Provisions of the code shall not promote or penalize specific types of equipment or fuel sources." This position is in direct conflict with the IECC's stated intent to pursue "safe and life cycle cost effective" solutions. The World Health Organization estimates that "Ambient air pollution alone caused some 4.2 million deaths in 2016, while household air pollution from cooking with polluting fuels and technologies caused an estimated 3.8 million deaths in the same period."[5] While an emergent consideration, evaluating and minimizing the social cost of carbon is already a regulatory prerogative in New York State for policymakers (and is being considered elsewhere). New York Department of Environmental Conservation Commissioning and Climate Action Council Co-Chair Basil Seggos stated, "Identifying the costs and benefits of reducing harmful greenhouse gas emissions is critical to New York's robust efforts to address the urgency of the climate crisis."[6] A full accounting of the lifecycle health and safety impacts of equipment categories would inherently require the incorporation of decarbonization measures. Gas equipment in buildings nationwide produces more than twice the amount of Nitrogen Oxides (NOx) than all U.S. power plants combined.[7] This is a recognized health hazard, and it impacts disadvantaged communities at a

---

[5] World Health Organization, "9 out of 10 people worldwide breathe polluted air, but more countries are taking action." May 2, 2018. https://www.who.int/news/item/02-05-2018-9-out-of-10-people-worldwide-breathe-polluted-air-but-more-countries-are-taking-action#:~:text=WHO%20estimates%20that%20around%207%20million%20people%20die,obstructive%20pulmonary%20diseases%20and%20respiratory%20infections%2C%20including%20pneumonia.

[6] New York State Department of Environmental Conservation, "DEC Announces Update to 'Value of Carbon' Guidance to Help Measure Impacts of Greenhouse Gas Emissions." August 30, 2023. https://dec.ny.gov/news/press-releases/2023/8/dec-announces-update-to-value-of-carbon-guidance-to-help-measure-impacts-of-greenhouse-gas-emissions

[7] [4] US Environmental Protection Agency. *Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990–2018. April 2020.* *https://www.epa.gov/sites/default/files/2020-04/documents/us-ghg-inventory-2020-main-text.pdf*

disproportionate rate.[8] These are among the true costs of building design decisions, and ASHRAE 90.1 has recognized this in revisions to their cost effectiveness test.

7. Inconsistency and misalignment with ASHRAE 90.1

Running parallel to the provisions scoped for IECCX, ASHRAE 90.1-E is being developed with the goal of meeting two thirds' emissions reductions in new construction commercial buildings in the 2028 cycle, and 100% reductions through the 2031 cycle. 90.1-E is proposed to consider the social cost of carbon (SCC) to justify code measures associated with the reduction of operational emissions and will include all the associated requirements in the main body to achieve the emissions reductions goals. The Draft Scope and Intent for IECCX does not consider SCC, and has limited many topics to being allowed only as optional credits in the main body or as appendices. This distinction is important, as ASHRAE 90.1-E's inclusion of all associated criteria in the main body of the text and the expressed goal of achieving emissions reductions supports a clear and consistent pathway for jurisdictions and project teams looking to achieve reduced emissions through compliance with the standard. The divergence from ASHRAE's direction, and lack of clarity in the IECCX objectives, will create challenges for both development and adoption.

Besides the divergence between the proposed IECCX and ASHRAE 90.1-E, the Draft Scope & Intent introduces deviations between IECC-Commercial and ASHRAE 90.1 by removing allowance of renewables and electric energy storage from the main body and appendices of the IECC. This will exacerbate misalignment between the base requirements of both standards, raising questions and complications regarding equivalency between the two, and driving increased compliance complexity for building officials, builders and developers, and design professionals.

8. No Transparency

The process for revision of the Scope and Intent of the IECC Standard lacks transparency and opportunities for public review. At ASHRAE, revision of Title, Purpose, and Scope is the most consequential "Standards Action" of the entire Standards Process. It involves review and approval by the Standards Project Liaison Subcommittee, the Technology Council, and the Standards committee before it goes out for a full ANSI public review, in which comments are received and substantively addressed through the same internal ANSI/ASHRAE process. NBI strongly recommends incorporating into the ICC Scope and Intent revision process a substantive level of transparency whereby public comments are addressed by a committee formed for this purpose, or at least formally considered and responded to by the Board. It would greatly assist the quality of the revisions if there were an open forum or an ad hoc committee, including code officials from impacted jurisdictions. This would extend member input beyond those pre-selected for the Board,

[8] RMI, "Factsheet: Why EPA Must Address Appliance Pollution." April 2021. https://rmi.org/wp-content/uploads/2021/04/rmi_factsheet_appliance_pollution.pdf

and that body could make recommendations on Scope and Intent issues for the IECC. This is essential to maintaining trust and integrity in the IECC standard and the process to develop it.

We appreciate the opportunity to submit comments and strongly encourage the ICC to integrate the proposed recommendations into the 2030 IECC Scope and Intent and its development process. To reiterate, NBI does not believe that the IECCX as proposed meets the needs of jurisdictions, and NBI will not participate in its development if the concerns described are not substantially addressed.

Sincerely,

Ben Rabe
IECC-Commercial Consensus Committee Member (2027 cycle)
IECC-Residential Consensus Committee Member (2024 cycle)
Associate Director, Codes & Policy
New Buildings Institute