To: Board of Directors, (BoD)
International Code Council

From: Vanessa Hostick
Chair, Sustainability, Energy, and High-Performance Code Action Committee (SEHPCAC)

Don Mock
Chair, Sustainability Membership Council (SMC)

RE: Scoping for development of embodied greenhouse gas (GHG) requirements

Council Policy 31-07 (CP 31) says that Code Action Committees (CACs) "*should consider the overall scope of the ICC Family of Codes in their work.*" CP 31 then assigns the primary responsibility to enhance the technical requirements of the International Codes to CACs by code or chapters of code to align CAC expertise with code content. The SEHPCAC is assigned primary responsibility for the International Energy Conservation Code (IECC), the International Green Construction Code (IgCC), and Chapter 11 of the International Residential Code (IRC).

Historically, provisions related to the regulation of embodied carbon[1] in construction materials have been addressed through the IgCC. Within the scope of the ICC family of codes, embodied carbon is a measure of emissions (GHGs)[2] attributed to the manufacture, transportation, construction, maintenance, replacement, and end-of-life treatment of construction materials. It is distinct and separate from the GHGs that are attributed to energy use in the building, also known as operational carbon. Requirements for reporting or minimizing embodied carbon are implemented using Environmental Product Declarations (EPDs) and Life Cycle Assessment (LCA) and continuous maintenance of that technical work continues at Work Group 9 of the ASHRAE Standard 189.1 committee. The participation in the development of future IgCC changes related to embodied carbon, therefore, falls to SEHPCAC through formal comment and informal coordination with members of the Standard 189.1 committee.

Similarly, ICC 700, the National Green Building Standard, which is referenced by the IgCC, provides requirements for residential buildings that are out of the scope of the IgCC. It also regulates embodied carbon through requirements related to EPDs and LCA. More,

[1] Embodied carbon is a term of art encompassing carbon dioxide, methane, and nitrous oxides.
[2] The IECC, IgCC, IRC, and ICC 700 regulate operational carbon (GHGs) through energy efficiency and load management and renewable generation requirements.

RESNET/ICC Standard 1550 intends to provide a standardized method to calculate and report the embodied carbon impact of homes.

However, advocates for broader adoption of embodied carbon regulation, seemingly dissatisfied with the pace of adoption of the IgCC, have proposed to include embodied carbon requirements in the International Building Code (IBC) in multiple cycles (S178-22, G206-25). Further, proposals to regulate embodied carbon – incorrectly confusing embodied energy and embodied carbon – are currently active in IECC development (RE137-24, RE 196-24).

Additionally, the draft ICC Performance Code (ICC PC) regulates embodied carbon in Chapter 10 and, further, building energy performance in Chapter 9 (even though the IECC has multiple performance paths). Further, ASHRAE/ICC Standard 240P addresses both embodied and operational carbon.

SEHPCAC and the SMC have concerns with the scattershot approach to GHG regulation across the ICC family of codes. We see the following as problematic:

- Development of technical provisions addressing the same content in multiple codes and standards will almost certainly lead to conflicting provisions.
- The SEHPCAC, ICC's expert technical body for the topic, has no responsibility or authority to advocate in IBC, ICC PC, ICC 700, ASHRAE/ICC Standard 240P, or RESNET/ICC Standard 1550 development.
- IBC code hearing committees (Structural in 2022 and General in 2025) have been tasked with making decisions on embodied carbon content outside of their specific committee expertise.
- Affected industries are over-taxed addressing the same content in multiple codes, leading to diminished expert participation in content development and challenging designers and enforcers where such content has been adopted.

SEHPCAC and the SMC request the BoD take the following actions to optimize the ongoing development of requirements in the family of International Codes to address embodied GHGs:

- Explicitly state that the regulation of embodied carbon, as related to the sustainability attributes of materials, is within the scopes of the IgCC and ICC 700 and not the IBC, IECC, or other members of the International family of codes.

  SEHPCAC and the SMC believe it inadvisable to create a precedent whereby the embodied carbon of piping materials would be regulated by the International

Plumbing Code or the embodied carbon of duct materials by the International Mechanical Code, et cetera.

- Direct staff to reject proposals made to the IBC, IECC, or other members of the International family of codes that propose to regulate embodied carbon with guidance to proponents to pursue such proposals in the development processes of the IgCC and ICC 700.
- Assign the content of ICC 700, ASHRAE/ICC Standard 240P, and RESNET/ICC Standard 1550 as primary responsibilities of the SEHPCAC consistent with Section 3 of CP 31. Doing so would permit SEHPCAC to comment on proposed changes to these standards.
- If energy performance or embodied carbon requirements are to remain in the ICC PC, assign that content as a primary responsibility of the SEHPCAC consistent with Section 3 of CP 31.

SEHPCAC welcomes the possibility of participation in development of the ICC PC, ICC 700, ASHRAE/ICC Standard 240P, and RESNET/ICC Standard 1550 and trusts the BoD sees the merit of that participation.