

March 18, 2022

The Department of Energy Resources
100 Cambridge Street, Suite 1020
Boston, MA 02114
Attn: Nina Mascarenhas

Re: Stretch Code Straw Proposal Comments

Dear Ms. Mascarenhas:

I am a licensed architect specializing in sustainable design working for a large architectural firm based in Massachusetts. I work with owners of most commercial building types of varying sizes throughout the Commonwealth. I see firsthand how architects, engineers, contractors and owners/developers work together to create very energy efficient and low carbon buildings that meet the financial, aesthetic, and programmatic needs of the project. The majority of projects I design exceed the current MA Stretch Code by at least 20% and if looked at by gross square feet most exceed Stretch Code by over 30%. Many of these projects are net zero or net zero ready totaling 3 million gross square feet.

I support the research, effort and diligence of the Stretch Code straw proposal put forth by DOER. I look forward to reviewing the detailed code language that results from the general overview and compliance pathways included in the proposal. I offer the following comments for consideration of furthering the development of the Stretch and Specialized Opt-in codes.

- **TEDI:** I support the proposed separation by building type into separate performance compliance paths for Targeted Performance and Relative Performance. However, for the Targeted Performance pathway I would recommend in addition to the TEDI heating and cooling demand metrics there be a whole building energy metric for EUI. The building industry is most familiar with EUI and it aligns with other codes, standards, and initiatives that the industry is following.
- **Relative Performance Path:** For the Opt-in Relative Performance pathway, there is no threshold above the ASHRAE baseline required. I recommend that DOER determine an appropriate reduction percentage beyond the ASHRAE baseline.
- **Renewables:** The Stretch code as well as the Specialized Opt-in code should include language for on-site, off-site, or SRECs. Renewables are covered in the IECC 2021 Appendices CC and RC that were recommended as optional compliance paths to the base code. In the Stretch code SRECs should not be required when on-site or off-site is not feasible to install. However, in the Specialized Opt-in code, SRECs should be required when on-site or off-site is not feasible to install. In the Stretch code, these renewable requirements should be required for buildings with fossil fuel use and in Opt-in code regardless of energy source.
- **Curtainwall:** The proposed Stretch and Opt-in codes allow an exception for curtainwall buildings to not meet enhanced performance and to meet embodied carbon reductions instead. I recommend that the curtainwall exception be removed in the Opt-in code.
- **Thermal Bridging:** I support the inclusion of thermal bridging in the proposed codes and look forward to understanding the details of requirements and assessment of thermal bridging. It is

unclear if the thermal bridging efficiency requirement is part of the Targeted and Relative Performance pathways, it should be included in both pathways.

- **Existing Buildings:** The proposed Stretch and Opt-in codes lower the thresholds of applicability to 20,000sf. I support this proposal. In addition, the applicability should extend to Existing Building additions and alterations as covered in IECC Chapter 5 of the base energy code. I understand there may be jurisdictional confusion on this point and encourage DOER to work through BBRS to incorporate this applicability.
- **Embodied Carbon:** I support the inclusion of embodied carbon in the Stretch and Opt-in code. I recommend that the Opt-in code require a Life Cycle Assessment (LCA) be required for both codes with the Stretch code demonstrating a 5% reduction in global warming potential (GWP) and the Opt-in code to demonstrate a 10% reduction in GWP based on an accepted LCA protocol.
- **Net Zero Definition:** The Opt-in code proposal lacks clarity in the definition of a net zero building. The definition should be coordinated with other accepted definitions and include both the need to meet specific energy use targets and provide renewables equal to or exceeding that energy use.

Sincerely,

A handwritten signature in black ink that reads "Kate Bubriski". The signature is written in a cursive, flowing style.

Kate Bubriski, AIA, LEED AP BD+C, CPHC