



SMART GROWTH AND REGIONAL COLLABORATION

March 15, 2022

Commissioner Patrick Woodcock
Director Maggie McCarey
Department of Energy Resources
100 Cambridge Street, Suite 1020
Boston, MA 02114

Re: Stretch Code Straw Proposal Comments

Dear Commissioner Woodcock and Director McCarey:

Thank you for the opportunity to provide comment on the straw proposals released February 8, 2022. We appreciate that these proposals encompass both an update to the existing Stretch Code and a framework for a new Specialized Stretch Code, as required by the 2021 Climate Act. We are writing to share our strong support for the increased stringency of the energy efficiency provisions in the Stretch Code update and to urge additional action to uphold the net zero intent and resultant benefits of the Specialized Code.

As you know, the Metropolitan Area Planning Council (MAPC) is the Regional Planning Agency serving the people who live and work in the 101 cities and towns of Greater Boston, which comprises roughly half of the state's population and two-thirds of the state's jobs. We are committed to smart growth, sustainability, regional collaboration, and advancing equity. MAPC has long recognized that mitigating climate change and making our Commonwealth more resilient for residents of all income levels will lead to healthier and stronger communities, and we have focused much of our work on this end.

The transition to better buildings presents tremendous opportunities beyond greenhouse gas (GHG) emissions reductions alone. If properly managed, this transition can improve public health, strengthen local economies, increase resilience to extreme weather, and redress environmental injustices many decades in the making. Thousands of well-paying jobs and expanded workforce opportunities, lives saved through reduced pollution, and more cost-effective and healthier housing developments will result from constructing and retrofitting our buildings to be green, healthy, efficient, and affordable. MAPC's experience working to expand access both to clean energy and affordable housing across the Greater Boston region, and beyond, has shown us that the goals of mitigating climate change and addressing the housing crisis are not mutually exclusive. The Commonwealth must move quickly to facilitate this transition by massively scaling up its investments in the codes, policies, programs, grants, and incentives necessary to decarbonize the Massachusetts buildings sector to reach our 2030, 2040, and 2050 commitments.

The large majority of MAPC communities have already adopted the Stretch Code, and a good number of these are eager to adopt a strong net zero Specialized Code. Communities in our region are committed to building a future in which residents are not only housed affordably, but

where those homes are also safe, healthy, and resilient. A robustly energy-efficient and climate-smart building code can improve public health outcomes and reduce the operational costs of buildings, while also decreasing peak energy demand. At the same time, such a code can improve building resilience and strengthen the power grid overall. We consider the life, safety, and equity implications of these codes to align with our inherent duty to protect and improve the wellness of our region's residents.

We have long called on the Commonwealth to update the Stretch Code, which is already in effect in 299 cities and towns, with others planning to join. The rigorously efficient Stretch Code update proposed could have a powerfully positive impact on the large number of buildings developed through new construction and major renovations. We were pleased to see a strong update proposal for the existing Stretch Code, and particularly commend the Department on adjusting the code to touch all buildings, in alignment with the intent and design of the original Stretch Code in 2009, rather than primarily commercial buildings over 100,000 square feet, as in the current Stretch Code. We also applaud the Department for proposing the TEDI requirements and addressing thermal bridging within the update. This long overdue focus is key to reducing the energy that escapes from the thermal envelope.

While the energy efficiency provisions within the update are largely positive, there are a few areas that require greater clarity or enhancement. Rooftop or carport solar should be a requirement, where feasible, in the Stretch Code update, not only in the new Specialized code. This could be phased into the code a year or two into the cycle. Moreover, we do not believe that an exception should be made for curtain walls. The straw proposal currently allows for low insulation levels for these glass walls. We are concerned that this may create a perverse incentive in which developers include curtain walls to a greater extent to avoid more stringent energy efficiency requirements. The allowance would certainly do little to shift the market away from curtain walls, which are less conducive to building decarbonization. At the very least, in the Specialized Code, buildings that choose to use curtain walls should have to be all-electric or meet a HERS rating consistent with passive house levels of efficiency.

The update also requires use of materials with low embodied carbon if curtain walls are used, which is the only place in the proposals that seeks to tackle embodied carbon. The manufacturing of many construction materials is inherently carbon-intensive, including numerous foam products used in high-performance buildings. Too many carbon-intensive materials can create a building with a multi-year carbon debt that delays the project's contribution to our net zero carbon goals, even if not currently accounted for in the Massachusetts GHG inventory. MAPC recommends that considerations for embodied carbon for new buildings be integrated more fully, at least within the Specialized Code. Moreover, much more clarity from the Department is needed regarding how embodied carbon will be defined and assessed, as it is unclear whether those requirements will balance out the increased energy use from curtain walls over time.

While the proposed update to the existing Stretch Code largely meets the moment, with areas for improvement noted above, the proposed Specialized Code could be enhanced to more fully meet the need from cities and towns. Massachusetts communities seek a code that they can opt into now, if they choose, that requires new construction and major renovations to be built to net zero. To accomplish this goal, the definition of a net zero building should comprise stringent energy efficiency standards, electrification to the greatest extent possible, and renewable energy to offset any remaining emissions. For the building typologies that can be constructed all-electric

economically today, such as most within the residential code and small and large office buildings, electrification should be required in the Specialized Code.

For building types where it may be infeasible to completely electrify today, such as those dependent on central hot water systems and some high ventilation buildings, viable options remain to improve efficiency and drastically reduce fossil fuel use. While pre-wiring and onsite rooftop solar where optimal conditions exist are important measures, they are insufficient. There should be flexibility to meet the solar requirement through either rooftop solar, solar parking canopy, or community shared solar. Moreover, multiple cases exist in which new multifamily buildings are optimizing heat pump water heaters for central hot water, and costs will become increasingly competitive as technologies are scaled up. Strong additional requirements could include:

- increased thermal efficiency;
- a HERS 40 maximum for buildings with onsite combustion;
- a solar energy system equivalent to 50 percent of roof space at minimum;
- reduced allowances for curtain walls and glazing;
- 100% clean electricity (equal to MA Class I renewables) through competitive supply contracts or green municipal aggregation;
- higher EV-ready and installed EV charging requirements; and
- increased energy recovery, particularly for high ventilation buildings.

We also encourage the Department to consider phasing in greater renewables requirements, including the opportunity to contract for offsite renewable energy to offset remaining emissions, in the near future.

Cities and towns continue to be eager to lead on climate action and are actively seeking additional tools to decarbonize their buildings on the timeline and scale to meet the moment. A code option that falls short of net zero is unlikely to curb a patchwork proliferation of local policies that seek to do it themselves. Alternatively, a Specialized Code that enables our cities and towns to achieve net zero for new construction and major renovation to the extent possible with current technologies and costs would benefit our climate, residents, and public health. Providing this option within statewide policy would create greater consistency and predictability for the community at large.

Thank you for your consideration of our comments and attention to these important issues. For any questions related to our comments or to discuss further, please contact me at cpeterson@mapc.org or 617-933-0791.

Sincerely,



Cammy Peterson
Director of Clean Energy