



City of Boston
Environment



City of Boston
Mayor Michelle Wu

August 12, 2022

Commissioner Patrick Woodcock
Department of Energy Resources
100 Cambridge St, Suite 1020
Boston, MA 02114

Dear Commissioner Woodcock,

Thank you to you and your team for publishing draft code language for the stretch code update and for the new specialized municipal opt-in code. While the City of Boston is already taking steps to mitigate emissions from buildings, strong building codes will accelerate decarbonization, strengthen the green economy, and help ensure that Bostonians and other residents of the Commonwealth live and work in buildings with lower energy bills and better indoor air quality. Boston supports the promulgation of new energy codes that help us achieve our ambitious, shared climate goals.

The codes as drafted would result in many positive changes. First and foremost, we applaud the continued inclusion of Thermal Energy Demand Intensity (TEDI) in the stretch code. TEDI creates a strong foundation for designing highly efficient, resilient buildings that prioritize passive strategies and minimize emissions. TEDI requirements have been implemented successfully in other codes, and it is imperative that these requirements stay as drafted to have the impact that the 2021 Climate Act intended. These strong efficiency requirements will help limit potential electric load growth and the pressure that would otherwise be placed on the grid. We are also pleased that energy ventilation recovery has been included in the stretch code, including the stretch residential code. This has important benefits for indoor air quality and the overall health and wellness of building occupants. We also support the push for electrification in highly ventilated buildings by requiring that they either follow the TEDI pathway or meet 25% of peak load with heat pumps. These requirements will be important for reducing fossil fuel use in our most energy intensive buildings. The residential stretch code's 4,000 square-foot threshold will also help to ensure that low-density residential is held to a high and achievable standard of construction and renovation for healthy housing. We also applaud the development of a clear definition of what qualifies as an all-electric building and added clarifications on rules around renovations and thermal bridge accounting. In addition, the air infiltration requirements should be retained as drafted to not only help reduce operational energy usage, but also increase the long-term resiliency of buildings, particularly wood frame construction, by significantly reducing vulnerability to water infiltration.

We also see several areas where the codes can be strengthened. First, the requirement for multifamily to meet Passive House precertification in the specialized opt-in code should be moved up to January 2023 for multifamily with six or greater stories. Meeting the Passive House standards for multifamily housing is feasible today and it is important that large, dense housing - which includes a large amount of the new affordable housing being constructed within the City of Boston - is built to the same high standard as smaller multifamily housing. We also believe that the HERS ratings limits in the stretch code can and should be lowered for low-rise residential buildings to achieve additional energy savings, improved indoor air quality, and the numerous other benefits of highly efficient homes. Furthermore, we urge DOER to eliminate the mixed-fuel option in the low-rise residential specialized code and to increase efficiency requirements for mixed-fuel buildings in the commercial specialized code. Additionally, given that 85% of our 2050 building stock already exists today, we encourage DOER to require that renovations of residential and commercial buildings meet stronger efficiency and electrification standards to ensure that our existing building stock will benefit from improved performance. Finally, while we support the inclusion of solar requirements for mixed-fuel buildings, we recommend that the requirement be extended to all building types in order to accelerate the transformation of our electric system, and further remove the tradeoff between solar and HERS standards for mixed-fuel residential renovations. Solar PV should be installed broadly and should not serve as a trade-off for fossil fuel usage.

Each of the above recommendations is feasible, with some examples of recently permitted and constructed projects in Boston listed below:

- [Mattapan Station](#) (Mattapan) is a 6-story Passive House multifamily housing project for 135 market-rate and affordable units expected to be completed in early 2023.
- [11 East Lenox Street](#) (Roxbury) is a 7-story efficient, all-electric, Passive House multifamily housing project with a predictive EUI of 12.8 kBtu and 55 kW of on-site solar PV that will include 34 market-rate and affordable units and utilize mass timber to reduce embodied carbon.
- Phase III [Landmark Center Redevelopment Project](#) (Fenway) is a 550,000 square foot zero net carbon life science and office building, with a 53% energy reduction, near elimination of natural gas usage, 37 kW of on-site solar PV, and a commitment to purchase 100% renewable electricity.
- The [Boston University Data Sciences Center](#) (Kenmore) will leverage geothermal wells for heating and cooling for a zero net carbon 19-story building that minimizes energy consumption using triple glazing, enhanced HVAC systems, and high efficiency LED lighting to achieve an energy performance that is 37% below the ASHRAE 90.1-2013 stretch code baseline.
- [380 Stuart Street](#) (Back Bay), at 625,000 square feet and 27 stories, will be one of Boston's largest zero net carbon buildings with efficient all-electric building systems, high

performance triple-pane glazing and insulation, on-site solar PV, and a commitment to purchase 100% renewable electricity.

A true net-zero emissions code is an essential tool for municipalities and for the Commonwealth to meet our collective climate goals. The proposed stretch code and specialized opt-in municipal code is actionable and feasible, and when further strengthened, will provide immediate and lasting benefits to households, businesses, and institutions in Boston and across the Commonwealth. We look forward to receiving the final code language and continuing to work with the Department to achieve our collective climate targets.

Best regards,

A handwritten signature in black ink that reads "Michelle Wu". The signature is fluid and cursive, with the first name and last name clearly distinguishable.

Mayor Michelle Wu

A handwritten signature in black ink. It appears to be "Mariama White-Hammond" written in a stylized, cursive script. The signature is composed of several connected loops and strokes.

Chief Mariama White-Hammond