



OFFICERS

James M. Tierney
CHAIR

Kara Buckley
VICE CHAIR

Kimberly Sherman Stampler
VICE CHAIR

Jeanne Pinado
TREASURER

Elizabeth Grob
CLERK

EXECUTIVE COMMITTEE

- Robert Biggio
- Michael Cantalupa*
- Joseph Carroll
- Donald Chiofaro
- Andrew J. Dankwerth
- Lawrence S. DiCara, Esq.*
- John E. Drew*
- Ronald M. Druker
- Rita (Nikiru) Edozie, PhD
- Kristen Hoffman
- Jessica Hughes
- Thomas J. Hynes, Jr.
- Mark R. Johnson
- Allan Juwonoputro
- William F.X. Kane
- James G. Keefe
- Edward Ladd
- Kevin M. Lemire
- Christopher W. Maher
- Michael E. Mooney, Esq.*
- Young K. Park
- Thomas Tilas
- Yanni Tsipis
- Dana E. Warren
- David Wilkinson

Kate Dineen
PRESIDENT & CEO

Richard A. Dimino
PRESIDENT EMERITUS

* Former Chair

Ian Finlayson
Deputy Director, Energy Efficiency Division
Department of Energy Resources
100 Cambridge Street, Suite 1020
Boston, MA 02114

September 17, 2024

RE: A Better City’s Comments on the Updated Building Stretch Energy and Specialized Stretch Energy Codes

Deputy Director Finlayson:

On behalf of A Better City’s nearly 130 member businesses and institutions, thank you for your efforts to understand the impact of the Building Stretch Energy and Specialized Stretch Energy Codes. We appreciate your effort to improve the codes based on this input and thank you for sending out updated draft codes for review.

A Better City’s comments are a combination of previous comments, as well as new or updated comments that include: defining rooftop solar readiness; extending embodied carbon reduction as an alternative path for all commercial buildings; clarifying requirements for derating and thermal bridges in alterations; reviewing existing building facades; reviewing building improvement setbacks; exempting fossil-fuel boilers in all-electric lab buildings; clarifying the boundaries for the blower door test in residential additions; continuing to promote policy and procedures to allow district energy to fulfill requirements in meeting the all-electric pathway utilizing industry scale heat pump technology; and developing a state-managed relief pathway for the Building Stretch Energy and Specialized Stretch Energy Codes.

Thank you for your consideration, for your leadership, and for your commitment to code improvement to ensure that they are implementable, while also moving us toward our shared climate goals. Please reach out to Yve Torrie (ytorrie@abettercity.org) with any comments or questions.

Thank you,

Y.L. Torrie

Yve Torrie
Director of Climate, Energy & Resilience
A Better City

Cc: Elizabeth Mahony, Commissioner, DOER
Paul Ormond, Energy Engineer, DOER

- **Define Rooftop Solar Readiness:** In addition to A Better City’s previous comments expressing concerns from our members with the on-site solar “where feasible” requirement in the Specialized Stretch Energy Code, we have since learned that the vast majority of developments in downtown Boston will be unable to interconnect any solar because Eversource operates an underground network system that does not allow interconnection. A solar requirement for these buildings is therefore not feasible. Additionally, solar plus storage options are limited because the Boston Fire Department requires storage to be located outside a building with setbacks which is not a viable option in many downtown developments. ***A Better City requests further definition and clarity about “solar where feasible” for buildings that are unable to abide by this requirement.***
- **Extend Embodied Carbon Reduction as an Alternative Pathway for All Commercial Buildings:** A Better City members appreciate the inclusion of embodied carbon reduction as an alternative pathway for energy reduction in residential and multi-family buildings. However, it is unclear why this pathway is not offered for other commercial buildings as well. Also, it’s worth noting that this will not be a very likely pathway for projects far outside of Boston or other markets that do not have specific concrete suppliers with high cement replacement options. ***A Better City recommends extending embodied carbon reduction as an alternative pathway for all commercial buildings.***
- **Clarify Requirements for Derating and Thermal Bridges in Alterations:** We have heard from A Better City members that it is unclear what constitutes alterations that are inherent to building structures in C503.2.4, Derating and Thermal Bridges in Alterations. Also there has been a suggestion that thermal bridge exceptions for alterations in C503.2.4 apply to change of use as well. ***A Better City recommends providing clarity on alterations as specified above.***
- **Review of Existing Building Facades:** The way the code is currently written derates existing facades that cannot always be overcome by insulating the inside of the facade. As buildings age, they will need renovations, which may become impossible if they cannot meet code without stripping the facades from existing buildings. This outcome does not seem to meet the intent of the code; new facades will be expensive and costly in their impact on embodied carbon. ***A Better City recommends a review of the derating of existing facades to ensure the intent of the code is met as it relates to expense and impact on embodied carbon.***
- **Review of Building Improvement Setbacks:** A Better City members understand that they are required to bring the buildings up to the current code if more than 30% of the asset’s value is spent on improvements. The 30% threshold, however, is limiting renovations in some buildings. In industrial buildings, for example, that were built more than 20 years ago when industrial buildings were built cheaply, the 30% threshold is limiting required upgrades. ***A Better City requests that thresholds be reviewed to ensure that renovations can be made for all building use types.***
- **Exempt Fossil Fuel Boilers in All-Electric Lab Buildings:** In pursuing an all-electric lab building development, an A Better City member has found that the most efficient way to deliver that is using an exhaust source heat pump (ESHP) system, using diesel boilers as a back-up heat source. However, the Specialized code considers any building with back-up fossil fuel boilers to be a mixed-fuel building, thereby triggering the requirement to provide additional onsite solar PV. There is already a substantial cost premium to installing an ESHP system, over and above a more typical air source heat pump (ASHP) system, which can only efficiently achieve ~80%-90% reduction of fossil fuel. The additional cost of delivering onsite solar PV makes this option unviable, thereby disincentivizing the developer to pursue an all-electric ESHP system. The only alternative available under the new code to qualify as an all-electric building is to provide back-up heat through electric resistant boilers tied to a diesel generator. This comes at a higher capital cost, takes up more space on the roof, and provides only 50%

efficiency (in a back-up scenario) compared to ~80% efficiency for back-up diesel boilers. Forcing a higher energy use technology is in direct conflict with the overall energy conservation goals of the new code. ***A Better City recommends the use of fossil fuel boilers as a back-up heat source be exempt in complying as an all-electric lab building, as is the case with back-up diesel generators. This will incentivize developers to pursue a cost-viable and more efficient all-electric lab building design, through an ESHP system.***

- **Clarify the Boundaries for the Blower Door Test in Residential Additions:** A Better City members appreciate that the blower door test now only applies to additions in residential spaces, and not the entire building. They, however, are unsure how this will be accomplished, and how the boundary for this is being determined. ***A Better City requests clarity is provided on the boundaries for the blower door test in residential additions.***
- **Continue to Promote Policy and Procedures to Allow District Energy to Fulfill Requirements in Meeting the All-Electric Pathway Utilizing Industry Scale Heat Pump Technology:** A Better City members appreciate that district energy is now recognized as a pathway in the Stretch Code. ***A Better City urges you to continue to work with Vicinity Energy and others to promote policy and procedures that will allow district energy to fulfill requirements in meeting the all-electric pathway utilizing industry scale heat pump technology.***
- **Develop a State-Managed Relief Pathway for the Building Stretch Energy and Specialized Stretch Energy Codes:** For the base building code, project proponents have an opportunity to seek relief from its provisions (780 CMR) in the form of a variance or interpretation of the applicability of a particular code section. Appeals Board members are not allowed to waive code requirements in their entirety but may consider alternative methods of complying with the intent of the code. However, there is no such relief pathway for the stretch and specialized energy codes. By allowing for additional flexibility for project proponents to comply with the Building Stretch Energy and Specialized Stretch Energy Codes, projects can move forward that increase project construction and renovation, and still meet critical climate goals. ***A Better City recommends a state-managed relief pathway be developed for the Building Stretch Energy and Specialized Stretch Energy Codes.***