



October 27, 2022

John Dalzell  
Boston Planning and Development Agency  
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Boston, MA 02201

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**PRESIDENT & CEO**

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Dear Mr. Dalzell,

On behalf of A Better City’s membership, representing 130 of Boston’s business leaders across multiple sectors of the economy, thank you for the opportunity to comment on the proposed Zero Net Carbon (ZNC) Building Zoning, Policy, and Standards. We are grateful for your continued engagement with the business community to ensure we can work together to find implementable design and construction strategies for the next generation of Boston’s buildings that align with city and state commitments to achieve net zero emissions by 2050.

A Better City is concerned that the BPDA has not yet demonstrated how the ZNC aligns with other key building policies like BERDO 2.0 at the city level, and the updated Stretch Energy Code and new Municipal Opt-In Stretch Energy Code at the state level. Additionally, it is unclear how the ZNC might be impacted by the City of Boston’s recently announced intent to ban new fossil fuel connections as one of the state’s ten municipal demonstration projects allowed under the Climate Act of 2022. As you know, the commercial real estate sector is faced with myriad building policies at the same time—a lack of alignment and clarity will have significant impacts on the Boston economy and may cause businesses and potential investors to move outside the region.

Providing clarity, consistency, and alignment around a building’s transition from a ZNC-compliant building to a BERDO 2.0-compliant building is of particular importance and concern to members. Also, although some building typologies have demonstrated the ability to construct new ZNC buildings, other hard-to-decarbonize buildings have not, either because the technology is currently not available for their building use type or because 100% reliable and clean electric use is currently not feasible. Despite this, it is our understanding that a ZNC Standard-compliant building that is not 100% electric will be required to pay Alternative Compliance Payments as soon as it becomes occupied and transitions into BERDO 2.0. This will add additional pressure to a sector still challenged from the pandemic and the changing nature of owning and leasing large buildings that has resulted. In addition, we also ask the BPDA to respond to the more technical concerns raised by members in the sections below on the proposed Article 37 updates and ZNC policy and standards, and the prioritized practices under the ZNC framework.

We look forward to continued dialogue as the proposed ZNC Zoning, Policy, and Standards continue to be discussed and refined.

Sincerely,

Richard A. Dimino  
President and CEO  
A Better City

Enclosures: 1

- cc: Michelle Wu, Mayor, City of Boston
- Arthur Jemison, Chief of Planning and Director of Boston BPDA
- Richard McGuinness, Deputy Director, BPDA
- Mariama White-Hammond, Chief of Environment, Energy, & Open Space
- Alison Brizius, Commissioner of the Environment Department

## **COMMENTS ON ZERO NET CARBON BUILDING ZONING, POLICY, AND STANDARDS**

A Better City (ABC) and its members support the City's goal of achieving net zero emissions by 2050 and recognize the urgent and important role that newly constructed buildings play in achieving our decarbonization commitments. We appreciate BPDA's ongoing engagement with the business community, across public meetings, listening sessions, and a meeting with ABC members on October 17, 2022, to discuss proposed Zero Net Carbon (ZNC) Zoning, Policy, and Standards. Based on feedback from ABC members, detailed below are comments and recommendations to ensure that aggressive but achievable standards are set so that building owners and developers can both plan for and meet them once implemented.

### **A. Overarching Comments for Consideration**

#### **Consistency With Other Decarbonization Efforts**

It is imperative that decarbonization efforts, especially those between Boston and the Commonwealth, are consistent and aligned to the greatest extent feasible. Uncertainty and inconsistency in evolving building policies and standards make it difficult for building owners to plan and make necessary financial and operational decisions. ABC members have expressed concern that the proposed ZNC Zoning, Policy, and Standards may jeopardize the future economic competitiveness of Boston relative to neighboring cities, regions, and the rest of the country.

Currently building policies are evolving at such a rapid pace that even the most sophisticated and progressive building owners and developers are unable to keep pace. At a state-level, the 2022 Climate Act calls for a large building data reporting requirement, like BERDO 1.0, as well as allowing 10 municipalities to develop fossil fuel bans by local approval (with the regulations for implementation still to be determined and likely straddling two gubernatorial administrations). It is unclear which municipalities will participate in the demonstration pilots from the 2022 Climate Act, and they may not be the same municipalities to opt-in to the forthcoming Specialized Municipal Opt-In Stretch Code from DOER. The State Administration has released sector-specific carbon emissions sublimits for 2025 and 2030 (that include buildings sector sublimits) and is in the process of finalizing the sector-specific sublimits for 2050 as well. Within DOER, the updated Stretch Energy Code, and the newly developed Opt-In Specialized Stretch Energy Code have been sent to the Joint Committee on Telecommunications, Utilities, and Energy for final approval. At a city-level in Boston, BERDO 2.0 regulations for existing buildings are in process, currently on Phase 2, and the ZNC Zoning is working on the new construction side of Boston's buildings. This list is not exhaustive and does not include additional misaligned policy processes underway in other municipalities like Cambridge, Newton, Lexington, Brookline, Watertown, Natick, and elsewhere.

Despite this array of building policies, there is little understanding of how these policies will work together and how city-level commitments in Boston like the proposed ZNC Zoning will intersect and/or overlap with state-level statutory climate commitments. Even the transition from a ZNC building to a BERDO 2.0 building, within one jurisdiction, as detailed above, is creating confusion.

In addition, the proposed ZNC Zoning, Policy, and Standards came out just two days after the updated Stretch Energy Code and the Municipal Opt-In Stretch Energy Code were released. There was no time for BPDA to review or analyze these codes to ensure there was alignment with the proposed ZNC Zoning, Policy, and Standards. As both building policies for new construction will have a significant impact on the economy, alignment is crucial. We would therefore like to understand what steps the BPDA is taking to review, analyze, and ensure alignment between these policies, and

suggest the ZNC Zoning, Policy, and Standards be sunset for re-evaluation every 5 years to ensure the outcomes are reviewed and evaluated, along with the effects on the Boston economy. This would be in line with existing policies like the 2021 Climate Act that requires updates to the State’s Clean Energy and Climate Plan every 5 years.

**A Better City recommends providing clarity and transparency about how the Zero Net Carbon Zoning, Policy, and Standards will work across legislative, administrative, and regulatory agencies, especially the recently updated Stretch Energy Code and Municipal Opt-In Stretch Energy Code that will become effective in January 2023, to ensure consistency and alignment across these various initiatives and their implementation. We also recommend that the proposed ZNC Zoning, Policy, and Standards sunset for re-evaluation every 5 years.**

### **Proof-of-Concept in Large Buildings**

Although some sectors of the built environment have demonstrated ZNC in new construction, like affordable housing, other sectors have limited, if any proof. Technology isn’t available for all building use types, and the cost to electrify the last 10-15% of emissions remains unfeasible. For these harder to decarbonize buildings, many are finding that retaining some fossil fuel use for backup/standby for resiliency, heating, or as federally required for some healthcare facilities, remains the most feasible option. However, a building owner is then faced with paying Alternative Compliance Payments a year after receiving a certificate of occupancy, when it will become a BERDO 2.0-covered building.

**A Better City recommends that in the cases where technology isn’t available or it is not feasible to electrify yet, that there is a grace period for Alternative Compliance Payments under BERDO 2.0 until technologies are available and/or feasible. Another consideration would be to broaden the options available to meet the mitigation requirements for fossil fuel use to include Verified Carbon Offsets (for our recommendations on carbon offsetting best practices, please see [A Better City’s 2021 carbon offset report](#)).**

## **B. Zero Net Carbon (ZNC) Zoning, Policy, and Standards Comments**

### **Article 37 Updates and ZNC Zoning, Policy, & Standards:**

- *Applicability Threshold for Renovations*
  - A Better City is requesting clarification on the applicable threshold for renovations under the proposed ZNC Zoning, Policy, and Standards and whether there will be any incentives or special consideration for these projects. At a recent meeting, 100,000 square feet was discussed as the renovation threshold, and we suggest this be clarified in the ZNC Zoning, Policy, and Standards language itself.

**A Better City is requesting clarity about the applicable threshold for renovations and that this be specified in the ZNC Zoning, Policy, and Standards language, along with any opportunities for incentives or special consideration for major renovations.**

- *Increase LEED Outcome to LEED Gold*
  - A Better City members have suggested adjusting the minimum requirement for LEED Gold to 25,000 or 30,000 square feet. A LEED Gold Requirement for buildings of 20,000 square feet is a significant financial investment involving the hiring of a LEED Consultant. Additionally, for buildings 20,000 square feet, there are other avenues and design strategies that can be utilized to become Zero Net Carbon or meet the carbon emission intensity/BERDO 2.0 Compliance requirements that don’t involve a LEED Certification.

**A Better city requests LEED Gold be considered for buildings 25,000 or 30,000 square feet and above while buildings 20,000 square feet be allowed to pursue other avenues and design strategies to become ZNC.**

- At the meeting with A Better City members on October 17th, a question was asked about the version of LEED that would be required to meet the LEED Gold standard. Currently LEED V4 is in practice but we expect V 4.1 to become the version in practice soon.

**A Better City requests that the version to meet the LEED Gold standard be clarified in the ZNC Zoning, Policy, and Standards language so that developers and owners can have certainty and predictability.**

- *Align with BERDO 2.0 Standards and Reporting*

- There is currently enormous confusion and concern with building owners and developers about the transition of a ZNC building under BPDA to a BERDO 2.0 building under the City of Boston's Environment Department. We are requesting that both the BPDA and Environment Department include the details of this transition and its implications in the zoning and regulatory language itself, e.g., when Alternative Compliance Payments are due, what the baseline for a ZNC building under BERDO 2.0 will be, and how long after occupancy a building becomes a BERDO building for reporting and compliance. This kind of information is crucial to include in the regulatory language to provide sufficient clarity for developers and building owners to plan for future development.

**A Better city requests clarity and details on the transition from a ZNC building to a BERDO 2.0 building be included in ZNC Zoning, Policy, and Standards language, and that the same language be included in BERDO 2.0 regulations currently in development.**

- Members have requested clarity about ZNC buildings transitioning to BERDO 2.0 and whether a ZNC building can be added to an existing portfolio under BERDO for compliance purposes.

**A Better City is requesting clarity about whether ZNC buildings transitioning into BERDO 2.0 will be eligible for inclusion in an organization's portfolio.**

- *Convene an Advisory Committee to Assist with Updates, Implementation, and Advancing Practices*

- A Better City is requesting details about the ZNC Advisory Committee, its make-up, roles, selection process, and required qualifications as the Committee will be very important for ZNC Zoning design and implementation. In a recent meeting with A Better City members, BPDA shared details about the proposed Advisory Committee including: that the committee will be stakeholder centric and made up of building professionals (building owners, developers, design engineering experts, and professionals) across the workspace; that it would not be a Boston resident restricted committee; and that it would be convened once an adoption date for the zoning has been set.

**A Better City requests that the details of the Advisory Committee be detailed in the ZNC Zoning, Policy, and Standards language.**

## ZNC Framework: Prioritized Practices

- *Low Carbon Building: Embodied Carbon*
  - Member companies with experience in whole building life cycle analysis (WBLCA) have shared that WBLCA's are useful to conduct but that they should be done early in the project to ensure recommendations are provided before major structural design is completed. Also, member experience has shown that there needs to be significant technology improvements to building materials within this region and knowledge sharing between the subcontractors, contractors, architects, and structural engineers, before any standards can be set. This aligns with the answer BPDA gave to a question at the A Better City member meeting on October 17<sup>th</sup> about the degree to which embodied carbon would be regulated and enforced as opposed to questions being asked through the permitting process. It was clarified by BPDA staff that embodied carbon in the workspace is still evolving and that BPDA is interested in asking questions during building design to understand what embodied carbon solutions are reachable for projects. They said embodied carbon solutions are not ready to specify via regulation yet. Members agree that embodied carbon best practices are in their infancy and that assessment and measurement is required before requirements are advanced.

**A Better City recommends that embodied carbon best practices are proven in concept, awareness is increased, and markets are further developed in Massachusetts to support the inclusion of embodied carbon in large buildings, before any embodied carbon standards are developed.**

- *Low Carbon Building: Operational Emissions*

Two approaches have been developed for establishing and minimizing building operational carbon emissions: the Predictive Performance Comparative Analysis Pathway and the Use Specific Best Practice Performance Pathway. We have comments below that refer to each pathway separately, and comments that relate to both pathways.

  - *Predictive Performance Comparative Analysis Pathway*
    - This pathway includes reference to the modeled performance of the Stretch Code (ASHRAE 90.1-2013) but the recently released stretch code refers to ASHRAE 90.1-2019. Similarly, LEED V4 references ASHRAE 90.1 2010 and LEED V4.1 refers to ASHRAE 90.1-2019. Although in a recent meeting, we were told the BPDA was agnostic to the best approach, having an agnostic approach in zoning and policy is creating enormous confusion to building developers and owners who rely on certainty and predictability.

**A Better City recommends clarity be provided about the baseline ASHRAE 90.1 standard being referenced in this pathway, with an option to include an “or equivalent” standard to allow for the flexibility for project teams to develop the best approach for their project.**

- This pathway is based on predictive modeling. Some sectors, like affordable housing, where technology is available, have projects up and running that provide accurate data to measure against predictive modeling outcomes. This is not the case for many large buildings like offices, which are a foundation of A Better City's member buildings. ABC members would love to see projects for large commercial buildings that have been operational for a while and that comply with proposed ZNC standards, so they can look and see where reality meets aspiration, but this

is currently not the case. Until case studies and real-time data can be provided from new construction projects for all ZNC commercial building types, we are concerned about the reliance upon predictive modeling.

**A Better City recommends that the City carefully identify, examine, and share building-specific case studies by use type, along with associated costs that demonstrate proof-of-concept in all commercial building types before finalizing ZNC standards. In addition, we recommend that the city look at different phase-in approaches that would allow a building to be built today with best practices that may use limited fossil fuel but that can transition to electric technology solutions as they become available.**

- Members have suggested that wet labs be exempted from a 40% carbon emissions reduction target and instead, be included in the 30% carbon emissions reduction target category along with healthcare facilities, to ensure the development of laboratories remains feasible in Boston.

**A Better City recommends wet labs be included in the 30% carbon emissions reduction category.**

○ *Use Specific Best Practice Performance Pathway*

- Members have requested more transparency on the greenhouse gas emissions factors for common energy sources. They have also asked for clarity about how often the emissions factors will be amended. Currently the draft regulations state “from time to time” which requires more specificity.

**A Better City recommends providing transparency on greenhouse gas emissions factors and specificity on how often these will be amended. We also request seamless alignment of emissions factors with BERDO 2.0.**

- The predictive carbon emissions intensity (pCEI) for college/university offices is different than commercial offices. Members have asked for clarity about this given the functionality is similar.

**A Better City requests clarity on the difference between college/university offices and commercial offices.**

- Based on preliminary calculations, it appears that the Use Specific Best Practice Performance Pathway is much harder to achieve than the Predictive Performance pathway.

**A Better City is seeking clarity as to whether the two pathways - *Predictive Performance Comparative Analysis Pathway* and *Use Specific Best Practice Performance Pathway* - are intended to be comparable or if the later pathway is intended to be harder to achieve.**

○ *Both Pathways*

- Carbon emissions intensity target categories should be consistent with categories under BERDO 2.0 and Portfolio Manager.

**A Better City recommends aligning carbon emission intensity target categories across ZNC Zoning and BERDO 2.0, as well as Portfolio Manager categories.**

- The district steam GHG emission factor listed in the draft document is significantly different than the EPA’s published national average emission factor and operator provided emission factors. We recommend that the City work with the district energy system operators in Boston and establish a path to publish third party verified emission factors, which the owners could use in their reporting. The emissions factors should be consistent with what is being established under BERDO 2.0.

**A Better City recommends working with district energy system operators to establish district energy emission factors and methodologies consistent with BERDO 2.0.**

- Our members continue to have serious concerns about the feasibility of forty percent emissions reductions compared to ASHRAE 90.1-2013, and that the targets could make commercial development cost prohibitive. Incentives, like tax credits, could be considered for ZNC zoning to help allay these costs. [The Empire Building Challenge in NYC](#) is a recent example that incentivizes deep energy retrofits in existing buildings, and we wonder if a similar program could be explored for new construction for ZNC zoning compliance in Boston.

**A Better City recommends that tax credits or other incentives be considered for ZNC Zoning.**

- *On-site Renewable Energy*
  - Members still have concerns about on-site renewable energy including the diminishing returns for projects constrained by limited roof space. Especially for electrified buildings, members are finding that rooftop space is very limited. Requiring developers and building owners to pursue these rooftop installations will be administratively challenging and could lead to a misallocation of resources. In the October 17<sup>th</sup> meeting with ABC members, two examples of competing roof space were presented – healing gardens in hospitals and roof desks in office space to encourage tenant’s return to work. Members would like to understand the process for approving exceptions and exclusions to rooftop solar requirements. Also, members wonder if Building Integrated Photovoltaics are an option, understanding that they have lowered efficiency compared to roof mounted solar.

**A Better City recommends the BPDA provide clarity about the conditions under which ZNC rooftop solar exemptions can be pursued as discussed in the October 17<sup>th</sup> meeting, and what the process for doing so will be.**

- We appreciate the proposed zoning changes to modify building height to exclude solar PV panels from building height and parking structures. However, questions remain about what the outcome would be if things like height, solar halos, aesthetics, or historic districts were contested during the community process and/or through community feedback.

**A Better City requests additional confirmation about the onsite solar requirements and how/if community feedback can have any bearing on the outcome.**

- Although raised in a previous comment letter, we still do not have clarity as to whether the 50% requirement for building roof area is for solar infrastructure or solar panels.

**A Better city recommends the BPDA clarify this important nuance re: solar infrastructure vs. solar panels for the 50% solar roof requirement in the ZNC Zoning language.**

- ABC members continue to express concern that without Eversource’s active engagement and agreement to accept this level of interconnection, that the on-site renewable energy requirement will not be attainable. BPDA must work with Eversource to understand their ability to add load to their substations serving Boston and any potential increases from electrifying buildings, to ensure building owners that interconnectivity issues will not arise.

**A Better City recommends the BPDA works with Eversource to understand their ability to add load to substations serving Boston’s buildings to ensure interconnectivity issues do not arise and interfere with this requirement.**

- *Renewable Energy Procurement*

- Little specificity has been provided about renewable energy procurement beyond a verbal acknowledgement that the definitions for acceptable options will be determined as part of the BERDO 2.0 regulatory process. We are requesting more information, opportunities, and structure regarding renewable energy procurement.

**A Better City recommends that the ZNC Zoning, Policy, and Standards clearly state what the renewable energy procurement options will be and how they will be developed under the BERDO 2.0 regulations.**