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November 12, 2018

Jill Stern, Chairperson, Construction Codes Coordinating Board, DCRA  
1100 Fourth Street, SW, Room 5100,  
Washington, D.C. 20024

Re: USGBC Comments on DC Code – explanation for recommended edits

Dear Chairperson Stern:

On behalf of the U.S. Green Building Council (USGBC), a non-profit organization with nearly 11,000 member companies nationwide, and our strong community in the District of Columbia, we offer the attached comments to the draft 2017 District of Columbia Energy and Green Code Update.

1. Section 101.10: Energy Conservation Code; Model Code

We understand that the District initiated development of the proposed code amendments several years ago, and that at the time, ASHRAE 90.1-2013 was the current version of that energy code. During the development process, however, ASHRAE published the next edition, 90.1-2016. The proposed D.C. code amendments would incorporate ASHRAE 90.1-2013, with modifications.

We recommend the District now modify its code references to the current version, 90.1-2016. This change is important because the length of the code update cycle could result in either significantly lagging behind model codes, or leapfrogging a model code version. Going ahead with 90.1-2016 now would be reasonable for the D.C. construction market. Notably, the performance path in 90.1-2013 Appendix G, the Performance Rating Method, is incorporated into 90.1-2016, such that projects using the performance path would have similar requirements under both codes.

This change would impact references to ASHRAE 90.1 throughout Section 101.10, including:

- 101.10 intro text
- 101.10.1.1 Normative and Informative Appendices
- 101.10.2 Administration and Enforcement

In addition, the Notice text and 101.1 would need updating.

2. Section 101.10; Energy Conservation Code; incorrect references

It appears that the alternative compliance path numbering may have changed during drafting and that inadvertently, incorrect reference numbers remain. For example, Section 101.10.1.2, Appendix Z, states “See Section 101.10.4.” However, 101.10.4 addresses intent of the energy code, and 101.10.6 addresses the alternative compliance paths. We have marked these references.



3. Section 101.10; Energy Conservation Code; Alternative Compliance Paths; Addition of USGBC LEED + Zero Certifications

USGBC has announced, and is launching this week, several performance-based certifications that align well with the District's energy and climate goals. We believe that two of the certifications would be valuable alternative compliance paths (ACPs). These include:

- **LEED + Zero: Operations** certification means that a building is operating at net zero carbon including an accounting of carbon over a 12-month period. Carbon caused includes all energy consumed and transportation associated with the building. Carbon avoided is based on renewable energy added to a grid, calculated using hourly production and carbon emission factors. The system also uses a hierarchy of renewable energy sources.
- **LEED + Zero: Energy** certification means that a building is operating at net zero energy, including an accounting of all energy consumption and production, over a 12-month period.

These performance based certifications are offered as an overlay to buildings with or in the process of seeking, a LEED certification. In this way, the certifications signal not only that buildings are demonstrating net zero carbon or energy in performance, based on operating data, but are also green buildings with attributes supporting occupant health, water resources, and other important outcomes.

We understand that jurisdictions considering ACPs for performance certifications need assurance that a new construction or major rehabilitation project is on track in the design phase, so that the expectation of performance at these superior levels is reasonable. We are currently conceptualizing a design phase process, such as a design and energy model review, that would fit this need of advanced jurisdictions. We would welcome a chance to work with District staff on such a review process.

Our attached recommended code edits reflect these certifications.

4. Section 101.10; Energy Conservation Code; Alternative Compliance Paths; Timeframe for Certifications

The proposed code includes Appendix Z along with several certification programs, all aimed at various "net zero energy" buildings. We notice that in Appendix Z, the proposed text for performance verification requires the owner or owner's representative to submit, *within 36 months of occupancy*, documentation demonstrating 12 continuous months of operation with no less than 90% occupancy where the energy consumed by the building and site as measured in accordance with Section Z4.



The achievement of a net zero operating building involves a series of key phases, from design, through the construction process, into occupancy and optimization in operations. The timeframe of 36 months from occupancy in Appendix Z reflects that a new building will need time to optimize operations for energy efficiency, to optimize any onsite or community renewable energy, and then to procure remaining renewable energy; and then to operate under such conditions for at least 12 months; and lastly, compile and transmit documentation.

In contract, the District's other proposed ACPs for the energy code allow a period of 18 months from occupancy to achieve net zero and to obtain and submit certification. We recommend consideration of a longer time period for all of the ACPs in this section, to 24 months. We note that the proposed language includes the possibility of extension for good cause and after written request, and agree with that provision.

5. Section 109.3.9; incorrect reference

This section appears to contain an incorrect reference to the ACP section as Section 101.4.9.

6. Section 101.12; Green Construction Code; include option of compliance with IgCC 2018.

The timeframe for building code adoption has also resulted in a reference to an IgCC version that has been updated; IgCC 2018 has just been released, while the proposed code refers to IgCC 2012. In light of the specific modifications to IgCC 2012 that the District has invested time in developing, we recommend the District include IgCC 2018 in its Green Construction Code as an option to the IgCC 2012.

7. Section 101.12.5; Green Construction Code; ACPs.

There appears to be an incorrect internal reference to the ACP section.

8. 12-I District of Columbia Construction Codes Supplement of 2017 Energy Conservation Codes Supplement of 2017.

With the recent release of the 2018 International Green Construction Code Powered by ANSI/ASHRAE/ICC/USGBC/IES - Standard 189.1 (2018-IgCC) USGBC recommends that 2018 IgCC be used in place on 189.1. This will harmonize synergies with LEED v4 and LEED v4.1

9. 11.3.1.2.5 Compartmentalization of Dwelling Units.



USGBC recommends that the District make compartmentalization a mandatory measure in the DC Commercial Energy Conservation Code for multifamily and mixed use projects using the DC Commercial Energy Conservation Code. The proposed change aligns the requirements in this commercial code with provision R402.4.1.2 Air Leakage Testing and Table R402.4.1.2 Air Leakage Testing Requirements in the DC Residential Energy Conservation Code.

10. [Chapter 35 \[DC Register page 010367\]](#)

Chapter 35 provides a list of referenced standards. The USGBC standards in this chapter need to be updated from v2009, which is no longer available for newly registering projects. We recommend the language in Chapter 35 reference “LEED v4, v4.1, and any subsequent updates.”

<https://up.codes/viewer/district-of-columbia/ibc-2012/chapter/35/referenced-standards#35>

The screenshot shows the UpCodes website interface. The main content area displays a table of referenced standards for Chapter 35 of the DC Building Code 2013. The table has three columns: Standard reference number, Title, and Referenced in code section number. The standards listed are:

Standard reference number	Title	Referenced in code section number
LEED-NC—2009	New Construction & Major Renovations	101.4.9.4.2.2
LEED-CI—2009	Commercial Interiors	
LEED-CS—2009	Core & Shell	
LEED—2009	Healthcare	
LEED—2009	Homes	
LEED—2009	Homes Multi-Family Midrise	
LEED—2009	Retail: Commercial Interiors	
LEED—2009	Retail: New Construction & Major Renovations	
LEED—2009	Schools	
LEED-EB—2009	Existing Buildings: Operations & Maintenance	

Below the table, the logo for the Window and Door Manufacturers Association (WDMA) is visible.

We would be pleased to set up a time to discuss the comments in greater detail. Please contact me at (202) 640-2344 if you would like to set up a time or if we may be of any assistance in the development process moving forward.



Sincerely,

A handwritten signature in black ink, appearing to read "B. Howard", enclosed within a thin black rectangular border.

Bryan Howard  
Legislative Director  
U.S. Green Building Council

cc:

Mark Bryan, Director, USGBC  
Elizabeth Beardsley, Senior Policy Council, USGBC

(attachments)