

Public Review Draft

Proposed Addendum bb to Standard 189.1-2017

Standard for the Design of High- Performance Green Buildings Except Low-Rise Residential Buildings

First Public Review (February 2020)
(Draft Shows Proposed Changes to Current Standard)

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Foreword

The addendum clarifies that minimum compliance with Standard 90.1-2019 is required without consideration of on-site or off-site renewable energy.

[Note to Reviewers: This addendum makes proposed changes to the current standard. These changes are indicated in the text by underlining (for additions) and ~~strikethrough~~ (for deletions) except where the reviewer instructions specifically describe some other means of showing the changes. Only these changes to the current standard are open for review and comment at this time. Additional material is provided for context only and is not open for comment except as it relates to the proposed changes.]

Addendum bb to 189.1-2017

Modify Section 7.5.1 as shown:

7.5.1 Annual Energy Cost. The *proposed building performance* cost index (PCI) ~~with consideration of renewables~~ shall be calculated in accordance with ANSI/ASHRAE/IES Standard 90.1, Normative Appendix G, and be equal to or less than the Performance Cost Target, as determined from the following equation:

$$PCI_{target} = \frac{BBUEC + (BBREC \times BPF) \times (1 - RF)}{BBUEC + BBREC}$$

where

PCI_{target} = target PCI required for achieving compliance with the standard, unitless

BBUEC = the component of *baseline building performance* that is due to *unregulated energy use*, \$

BBREC = the component of *baseline building performance* that is due to *regulated energy use*, or *baseline building performance* minus BBUEC, \$

BPF = building performance factor taken from Table 7.5.2A, unitless

RF = renewable energy production fraction from Table 7.5.1, unitless

~~The proposed building PCI, without consideration of renewables, shall comply with the requirements of ASHRAE/IES Standard 90.1, Section 4.2.1.1.~~

On-site renewable energy systems in the *proposed design* shall be calculated using the procedures in Normative Appendix C. For mixed-use buildings, the building performance factor (BPF) shall be determined by weighting each building type by floor area. A *building project* served in whole or in part by a *district energy plant* shall follow the modeling requirements contained in Normative Appendix C, Section C1.3, in order to comply with this section.

7.5.1.1 Compliance with ANSI/ASHRAE/IES Standard 90.1 without renewables. The proposed building PCI shall comply with the requirements of ANSI/ASHRAE/IES Standard 90.1, Section 4.2.1.1. The energy cost credits from on-site renewable energy production shall not be subtracted from the *proposed design* energy costs for the purposes of this section.