

Public Review Draft

Proposed Addendum bc to Standard 189.1-2017

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

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

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(This foreword is not part of this standard. It is merely informative and does not contain requirements necessary for conformance to the standard. It has not been processed according to the ANSI requirements for a standard and may contain material that has not been subject to public review or a consensus process. Unresolved objectors on informative material are not offered the right to appeal at ASHRAE or ANSI.)

Foreword

Building energy simulation has been identified as a key method for improving the design of energy efficient buildings^{1,2} and ANSI/ASHRAE Standard 209-2018 was created to help better define and facilitate this process. The standard defines reliable and consistent procedures that advance the use of timely energy modeling to quantify the impact of design decisions as they are being made.

The building design industry recognizes that energy simulation has untapped potential, as it has often been limited to serving as a code compliance tool or a scorecard for beyond-code programs³. Standard 209 was created to improve the use of energy modeling to assist with design decisions.

ASHRAE Standard 209 is gaining popularity in the green building community. The standard is now part of the LEED Version 4.1 Reference Guide for the Integrative Process credit² and is referenced extensively in the new 2019 Architect's Guide for Building Performance⁴ and the IBPSA-USA Project StaSIO⁵.

This addendum establishes a pathway for using building energy modeling to support decision-making during the process of designing a high-performance building.

References:

1. The American Institute of Architects. 2030 by the Numbers: The 2018 Summary of the AIA 2030 Commitment.
2. United States Green Building Council, LEED Version 4.1 Building Design and Construction Guide, Integrative Process credit.
3. Tupper, K., E. Franconi, C. Chan, C. Fluhrer, M. Jenkins, and S. Hodgin. 2011. Building Energy Modeling: Industry-Wide Issues and Potential Solutions, Proceedings of Building Simulation 2011, Sydney, Australia.
4. United States Green Building Council, LEED Version 4.1 Building Design and Construction Guide, Integrative Process credit.
5. AIA. 2019. Architect's Guide to Building Performance: Integrating Performance Simulation in the Design Process. The American Institute of Architects.
6. International Building Performance Simulation Association, USA, Project StaSIO
<https://www.ibpsa.us/news/project-stasio-architectural-simulations-research-subcommittee>

[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 bc to 189.1-2017

Modify Table 4.2, Section 7.5, and Normative References as follows:

**INFORMATIVE TABLE 4.2 – to become normative in IgCC
REQUIREMENTS DETERMINED BY THE JURISDICTION**

SECTION	SECTION TITLE OR DESCRIPTION AND DIRECTIVES	Jurisdictional Requirement
...	...	___ No
7.5.4	Energy Simulation Aided Design	___ No

7. ENERGY EFFICIENCY

...

7.5 Performance Option

...

7.5.4 [JO] Energy Simulation Aided Design. For *building projects* that exceed 10,000 ft² of gross floor area, the *building project* shall comply with the requirements of Section 4.2.1 of ANSI/ASHRAE Standard 209.

11. NORMATIVE REFERENCES

Reference	Title	Section
ASHRAE 1791 Tullie Circle, NE Atlanta, GA 30329, United States 1-404-636-8400; www.ashrae.org ...	<u>Energy Simulation Aided Design for Buildings Except Low-Rise Residential Buildings</u>	<u>4.2.1</u>
