BSR/ASHRAE/IES Addendum au
to ANSI/ASHRAE/IES Standard 90.1-2022

Public Review Draft

Proposed Addendum au to Standard 90.1-2022, Energy Standard for Sites and Buildings Except Low-Rise Residential Buildings

First Public Review (July 2024)
(Draft Shows Proposed Changes to Current Standard)

This draft has been recommended for public review by the responsible project committee. To submit a comment on this proposed standard, go to the ASHRAE website at www.ashrae.org/standards-research--technology/public-review-drafts and access the online comment database. The draft is subject to modification until it is approved for publication by the Board of Directors and ANSI. Until this time, the current edition of the standard (as modified by any published addenda on the ASHRAE website) remains in effect. The current edition of any standard may be purchased from the ASHRAE Online Store at www.ashrae.org/bookstore or by calling 404-636-8400 or 1-800-727-4723 (for orders in the U.S. or Canada).

This standard is under continuous maintenance. To propose a change to the current standard, use the change submittal form available on the ASHRAE website, www.ashrae.org.
The appearance of any technical data or editorial material in this public review document does not constitute endorsement, warranty, or guaranty by ASHARE of any product, service, process, procedure, or design, and ASHRAE expressly disclaims such.

ASHRAE, 180 Technology Parkway NW, Peachtree Corners, GA 30092

(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

This addendum aligns how automated shading and dynamic glazing are modeled in Section 12 with Appendix G, not giving credit for manual shading, but allowing permanently installed automatically controlled shading devices and dynamic glazing to be modeled. Performance properties of automatically controlled shading devices must be determined in accordance with AERC 1 from the Attachments Energy Rating Council. At the same time, this proposal makes clean-up corrections to some of italicized terms in both Ch 12 and App G.

This addendum impacts an optional performance path in the standard designed to provide increased flexibility and therefore was not subjected to cost-effectiveness analysis.

[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 au to 90.1-2022

Modify Section 12 as follows:

Table 12.5.1 Modeling Requirements for Calculating Design Energy Cost and Energy Cost Budget

Proposed Design (Column A) Design Energy Cost (DEC)	Budget Building Design (Column B) Energy Cost Budget (ECB)
5. Building Envelope	
a. All components of the *building envelope* in the *proposed design* shall be modeled as shown on architectural drawings or as built for *existing building envelopes*. All *opaque building envelope* components shall be modeled accounting for thermal mass effects. **Exception:** The following *building* elements are permitted to differ from architectural drawings. … 6. ~~Manually operated~~ *Manual fenestration* shading devices, such as blinds or shades, shall ~~not~~ be modeled or not modeled the same as in the *budget building design*. *Permanently installed automatically* controlled *fenestration* shading devices shall be modeled. The performance of *automatically* controlled *fenestration* shading devices shall be determined in accordance with AERC 1. Permanent shading devices, such as fins, overhangs, and lightshelves, shall be modeled. 7. *Automatically* controlled *dynamic glazing* may be modeled. *Manual dynamic glazing* shall use the average of the minimum and maximum *SHGC* and *VT*.	d. No shading projections are to be modeled~~.~~. *Manual fenestration* shading devices such as blinds or shades are not required to be modeled. *Automatically* controlled *fenestration* shading devices shall not be modeled. ... *(rest of paragraph unchanged)*

(rest of table unchanged)

Modify Appendix G as follows:

Table G3.1 Modeling Requirements for Calculating Proposed Building Performance and Baseline Building Performance

Proposed Building Performance	Baseline Building Performance
5. Building Envelope	
a. All components of the *building envelope* in the *proposed design* shall be modeled as shown on architectural drawings or as built for *existing building envelopes*. All *opaque building envelope* components shall be modeled accounting for thermal mass effects. **Exception:** The following *building* elements are permitted to differ from architectural drawings: … 6. *Manual fenestration* shading devices, such as blinds or shades, shall be modeled or not modeled the same as in the *baseline building design*. *Permanently installed* a~~A~~*utomatically* controlled *fenestration* shades or blinds shall be modeled. The performance of *automatically* controlled *fenestration* shading devices shall be determined in accordance with AERC 1. Permanent shading devices, such as fins, overhangs, and light shelves shall be modeled. 7. *Automatically* controlled *dynamic glazing* may be modeled. ~~Manually controlled~~ *Manual dynamic glazing* shall use the average of the minimum and maximum *SHGC* and *VT*.	**f. Vertical Fenestration Assemblies.** *Fenestration* for new *buildings*, *existing buildings*, and additions shall comply with the following: … • *Manual* ~~window~~ *fenestration* shading devices such as blinds or shades are not required to be modeled. • ~~Automatic~~ *Automatically* controlled *fenestration* shading devices shall not be modeled.

(rest of table unchanged)

Add to Section 13 as follows:

13. NORMATIVE REFERENCES

Reference		Section
Attachments Energy Rating Council (AERC) **355 Lexington Ave 15th Floor New York, NY 10017**		
AERC-1-2021	Procedures for Determining Energy Performance Properties of Fenestration Attachments	Table 12.5.1 Table G3.1