BSR/ASHRAE/IES Addendum k
to ANSI/ASHRAE/IES Standard 100-2024

Public Review Draft

Proposed Addendum k to Standard 100-2024,

Energy and Emissions Building Performance

Standard for Existing Buildings

First Public Review (August 2026)
(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.

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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

This addendum supplements Informative Appendix H Energy Efficiency Measures to offer a list of emissions reduction measures for buildings to consider when attempting to lower greenhouse gas emissions to meet set GHGI targets. While all energy efficiency measures are emissions reduction measures, Appendix H lacks measures that have a focused impact on reducing greenhouse gas emissions.

Note: In this addendum, changes to the current standard are indicated in the text by underlining (for additions) and strikethrough (for deletions) unless the instructions specifically mention some other means of indicating the changes. Only these changes 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 substantive changes.

Addendum k to Std. 100-2024

Revise Section 8.3.2 as follows.

8.3.2 Buildings that Do Not Meet Their Performance Targets Overall Process. An energy audit with decarbonization assessment shall be conducted, and an associated report shall be provided, for all *buildings* that do not meet their *performance target*. The energy audit with decarbonization assessment shall be completed by a *qualified energy auditor* practicing within their field of competency. The energy audit with decarbonization assessment shall be either a Level 1 or Level 2 audit (as described in Section 8.4) specified by the *qualified energy auditor* to be sufficient to identify and evaluate the *EEMs* and *ERMs* that, if implemented, would result in the *building* meeting its *performance target*. The *qualified energy auditor* may refer to the list of potential *EEMs* in Informative Appendix H and the list of potential *ERMs* in Informative Appendix Q.

Add Informative Appendix Q as follows.

INFORMATIVE APPENDIX Q
EMISSIONS REDUCTION MEASURES

This informative appendix provides listings of typical *emission reduction measures (ERMs)* that can be applied to enable *buildings* to meet the set *greenhouse gas intensity (GHGI) targets*. It identifies commonly applied elements that can improve *building performance* but is not intended to suggest specific requirements, nor does it comprehensively cover all of the options available to an owner.

Q1 Replace or supplement equipment powered using high-carbon energy sources with lower-carbon energy source alternatives.

Q2 For systems with multiple energy sources, operate equipment with the lowest hourly emission rate as the primary stage device.

Q3 Replace or modify high-temperature heating distribution systems with lower temperature heating distribution systems to reduce thermal losses and improve heating system efficiency.

Q4 Improve heat pump equipment efficiencies by accessing higher quality heat sources such as exhaust air, computer rooms, thermal storage, condenser water loops, or ground loops to reduce compressor lift.

Q5 Add thermal storage to the cooling or heating system and operate equipment when grid emission factors are lower.

Q6 Add thermal storage capable of capturing heat rejected during cooling operation and asynchronously recovering that heat for space heating, service water heating, or other useful heating loads.

Q7 Relax space temperature setpoints when the electric utility or energy aggregator transmits a load shed request.

Q8 Update lighting systems to provide for demand response capability so that lighting loads are reduced during periods of peak electricity demand.

Q9 Implement plug load control at receptacles with automatic shutoff and load shedding capabilities.

Q10 Schedule vehicle charging and appliance operation to align with low-carbon emission grid periods.

Q11 Install *on-site renewable electricity* or *lower-carbon fuel* generation systems.

Q12 Install battery energy storage systems. Charge the battery system when grid emission factors are lower and preferentially discharge the battery system when grid emission factors are higher.