



**BSR/ASHRAE/IES Addendum k
to ANSI/ASHRAE/IES Standard 90.1-2019**

Public Review Draft

Proposed Addendum k to Standard 90.1-2019, Energy Standard for Buildings Except Low-Rise Residential Buildings

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

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FOREWORD

This addendum adjusts the Section 11 budget building fan power to avoid a fan power credit for cases where the proposed building includes heat recovery and the budget building does not include heat recovery.

This addendum impacts an alternative compliance path and as result not subject to cost effectiveness.

[Note to Reviewers: This addendum makes proposed changes to the current standard. These changes are indicated in the text by underlining (for additions) and ~~striketrough~~ (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 k to 90.1-2016

11.5.2 HVAC Systems

The *HVAC system* type and related performance parameters for the *budget building design* shall be determined from Figure 11.5.2, the *system* descriptions in Table 11.5.2-1 and accompanying notes, and the following rules:

- a. **Budget Building Systems Not Listed.** Components and parameters not listed in Figure 11.5.2 and Table 11.5.2-1 or otherwise specifically addressed in this subsection shall be identical to those in the *proposed design*.

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- h. **Fan System Efficiency.** Fan *system efficiency* (bhp per cfm (input kW per L/s) of supply air, including the effect of belt losses but excluding motor and motor drive losses) shall be the same as the *proposed design* or up to the limit prescribed in Section 6.5.3.1, whichever is smaller. If this limit is reached, each fan shall be proportionally reduced in brake horsepower (input kW) until the limit is met. Fan electrical power shall then be determined by adjusting the calculated fan hp (kW) by the minimum motor *efficiency* prescribed by Section 10.4.1 for the appropriate motor size for each fan.

Exception to 11.5.2(h)

1. When a *proposed design* includes energy recovery but it is not required in the *budget building design* per Section 11.5.2.d, the fan power of those baseline *systems* shall be equal to either the *proposed design system* or the fan power limit in 6.5.3.1 calculated without fan power credit for energy recovery, whichever is less.