

Public Review Draft

Proposed Addendum p to Standard 189.1-2023

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

Second Public Review (March, 2026)
(Draft Shows Proposed Changes to Previous Public
Review Draft)

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 ASHRAE of any product, service, process, procedure, or design, and ASHRAE expressly disclaims such.

© March 9, 2026 ASHRAE. This draft is covered under ASHRAE copyright. Permission to reproduce or redistribute all or any part of this document must be obtained from the ASHRAE Manager of Standards, 180 Technology Pkwy NW, Peachtree Corners, GA 30092. Phone: 404-636-8400, Ext. 1125. Fax: 404-321-5478. E-mail: standards.section@ashrae.org.

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



© March 9, 2026 ASHRAE

This draft is covered under ASHRAE copyright. The appearance of any technical data or editorial material in this publication document does not constitute endorsement, warranty, or guaranty by ASHRAE of any product, service, process, procedure, design or the like and ASHRAE expressly disclaims such. Permission to republish or redistribute must be obtained from the MOS.

(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 second public review ISC makes changes to the addendum that resulted from public review comments on the first publication public review. The addendum updates requirements for water system sub-metering and data storage and retrieval. This second PPR ISC modifies some of the thresholds that trigger monitoring requirements, removes monitoring requirements for adiabatic condenser blowdown, and adds a requirement for monitoring the supply to multiple small units which cumulatively exceed the applicable threshold. An Informative Note is added to provide examples of “unusual flow conditions”.

[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 p 2nd PR ISC to 189.1-2023

Revise Section 6.3.5 as follows:

6.3.5 Water Consumption Measurement

6.3.5.1 Consumption Management. Measurement devices with remote communication capability shall be provided to collect water consumption data for each supply of *potable water*, municipally *reclaimed* water, or alternate sources of water to all buildings in the *building project* and for each of the building subsystems sized above a threshold level listed in Table 6.3.5.1. For multiple similar units of the same subsystem type served by a single water supply, where the total capacity of the units exceeds the applicable threshold, only a single measurement device on the common supply is required. Exception: separately leased space. Where multiple heating or cooling units of the same subsystem type are served by a single water supply, and the total capacity of such units is greater than the applicable threshold specified in Table 6.3.5.1, a measurement device shall be required only on the common supply.

Exceptions to 6.3.5.1:

1. Pipes that are fully monitored by downstream meters.
2. Applications where *approved* calculations show daily water consumption not greater than 500 gal/day (1900 L/day).

6.3.5.2 Consumption Data Collection. All building measurement devices installed to comply with Section 6.3.5.1 shall be configured to communicate water consumption data to a meter data management system. Meters shall be capable of providing data at a one-minute interval or shorter.

Table 6.3.5.1 Subsystem Water Measurement Thresholds

Subsystem	Submetering Threshold
Cooling tower makeup water	Cooling capacity > 150 50-tons (525 475-kW)
Cooling tower blowdown	Cooling capacity > 150 50-tons (525 475-kW)
Evaporative or adiabatic condenser makeup water	Cooling capacity > 150 50-tons (525 475-kW)
Evaporative or adiabatic condenser blowdown	Cooling capacity > 150 50-tons (525 475-kW)
Evaporative coolers	Makeup water > 0.6 gpm (0.04 L/s)
Steam and hot-water boilers	Heating capacity >500,000 Btu/h (150 kW) input
Irrigation systems	Irrigated area >5000 ft ² (500 m ²)
Separate buildings within a campus or project	Consumption >1000 gal/day (3800 L/day)
Separately leased <i>space</i>	Consumption >1000 gal/day (3800 L/day)
Water system distribution branch	Supply pipe diameter >= 2.0" (50 mm) and Consumption > 6,500 gal/day (24,600 L/day)

6.3.5.3 Data Storage and Retrieval. The meter data management system shall be capable of:

- a) electronically storing water meter and submeter data for a period of not less than three years
- b) creating user reports showing calculated hourly, daily, monthly, and annual water consumption for each measurement device
- c) provide alert notifications for leaks and unusual flow conditions
- d) present plots of minute-by-minute consumption for each measurement device in any system where an alert has been triggered.

Informative Note: Examples of unusual flow conditions include, but are not limited to:

- 1) Constant water use when there should be no water use, e.g., nighttime.
- 2) High water use for too long.
- 3) For evaporative cooling applications, water inflow falls below the normal base inflow rate for too long.
- 4) For landscape irrigation, continuous water use when system should not be using water.
- 5) For landscape irrigation, system is off longer than expected.