Standard 189.1-2020

ANSI/ASHRAE/ICC/USGBC/IES Standard 189.1-2020, *Standard for the Design of High Performance, Green Buildings*

Purpose

To provide minimum requirements for the siting, design, construction, commissioning, and plans for operation of high-performance green buildings intended to reduce emissions from buildings and building systems, enhance building occupant health and comfort, conserve water resources, protect local biodiversity and ecosystem services, promote sustainable and regenerative materials cycles, improve indoor air quality, and enhance resilience to natural, technological, and human- caused hazards. This standard is intended to provide the technical basis of mandatory building codes and regulations for high-performance green buildings that are broadly adoptable by national and local governments. In the United States and Canada, the 2021 International Green Construction Code (IgCC) is used.

Significance

The building industry accounts for roughly 40% of global greenhouse gas emissions. Buildings also provide an essential function of keeping people safe from extreme temperatures, therefore, building green has never been more important. This standard is the first code-intended commercial green building standard in the United States. This standard currently serves as the technical basis of the International Green Construction Code (IgCC) sponsored by ASHRAE, ICC, IES, USGBC. The Building Owners and Managers Association (BOMA), U.S. Environmental Protection Agency (EPA), New Buildings Institute (NBI), and the American Institute of Architects (AIA) contribute their expertise to the standard as well. The IgCC requires green building strategies while maintaining compatibility with local codes and LEED. The IgCC is adopted at the state or local level in 14 U.S. States and the District of Columbia.

Scope

The standard contains requirements that apply to the following building projects:

- New buildings and their systems.
- New portions of buildings and their systems.
- New systems and equipment in existing buildings.
- Relocated existing buildings.

The standard also addresses site sustainability, water use efficiency, energy efficiency, indoor environmental quality (IEQ), materials and resources, and construction and plans for operation.

This standard ***does not*** apply to:

- Single family houses.
- Multifamily structures of three stories or fewer.
- Building projects that use none of the following: electricity, fossil fuel, or water.

ASHRAE Washington Office | 1255 23rd Street, NW Suite 825 | Washington, DC 20037
Telephone 202-833-1830 | ashrae.org/governmentaffairs | GovAffairs@ashrae.org

Highlights

✓ Published by ASHRAE, in conjunction with the Illuminating Engineering Society of North America (IES), the International Code Council (ICC) and the U.S. Green Building Council (USGBC).

✓ Used as the basis and backbone of the International Green Construction Code, which is adopted at the state and local level around the United States.

✓ Supports sustainable development by meeting the needs of the present without compromising the future.

✓ Incorporated by the U.S. Army, Navy and Air Force into Unified Facilities Criteria for Energy and Sustainability Building Requirements.

✓ Required as referenced in specific sections of the U.S. General Services Administration's (GSA) P100 Facilities Standards, which guides new construction and renovations of Federal Facilities.

Changes and Improvements from Standard 189.1-2017

The 2020 edition incorporates 70 addenda to the 2017 edition.

Highlights include:

✓ Requirements for electric vehicle charging infrastructure are improved.

✓ Updated language on lighting efficiency, equipment, and envelope requirements.

✓ Upgraded renewable energy requirements to both on-site and off-site sources.

✓ New criteria for compliance with net zero and renewable energy benchmarks.

ASHRAE Washington Office | 1255 23rd Street, NW Suite 825 | Washington, DC 20037
Telephone 202-833-1830 | ashrae.org/governmentaffairs | GovAffairs@ashrae.org