

# Standard 189.3-2021



## ANSI/ASHRAE/ASHE Standard 189.3-2021, *Design, Construction, and Operation of Sustainable High-Performance Health Care Facilities*

### Purpose

The purpose of this standard is to provide minimum requirements for the siting, design, construction, and operation of high-performance, sustainable health care facilities to:

- Reduce emissions, enhance occupant health and comfort, conserve water, protect local biodiversity and ecosystems services, promote sustainable and regenerative materials cycles, and enhance resilience.
- Support the goal of development that meets the needs of the present without compromising the ability of future generations to meet their own needs, including decarbonization of the building environment.

This standard provides requirements that can be adopted by national and local jurisdictions.

### Significance

Health care facilities are among the largest and most energy intensive buildings in a community, and conserving energy, reducing operating costs, and improving the environment in improved design of these facilities demonstrates wise stewardship and care of the communities they serve. However, there are challenges with providing such sustainable facilities given the increasingly advanced building systems required for modern health care. The intent of this standard is to bridge the potential for sustainability offered in Standard 189.1 with the practical needs of the health care community.

### Scope

This standard applies to patient care areas and related support areas within health care facilities and their site, including hospitals, outpatient facilities, residential health, care, and support facilities. The standard also applies to new buildings, additions to existing buildings, and other alterations to existing buildings identified within the standard. The standard provides procedures for the integration of sustainable principals into health care facility design, construction, and operation processes.

### Highlights

- ✓ ASHRAE Standard 189.3 continues to build on the work of ASHRAE/ICC/USGBC/IES Standard 189.1 to address sustainability in health care facilities, and the two standards are closely aligned.
- ✓ References ASHRAE 170, *Ventilation of Health Care Facilities* for the design requirements for achieving indoor air quality.
- ✓ Referenced in the U.S. EPA *Energy Savings Plus Health: Indoor Air Quality Guidelines for Single-Family Renovations*.
- ✓ Includes provisions on conservation of energy, conservation of water, indoor environmental quality, integrated design, construction practices, commissioning, and operation and maintenance.
- ✓ The healthcare sector is responsible for 4.4 to 4.6 percent of global greenhouse gas emissions, and 9 percent of the total U.S. emissions.1, 2
- ✓ Hospitals and other health care facilities consume 7 percent of the water used in the commercial and industrial sectors in the U.S.

## Changes and Improvements from Standard 189.3-2017

- ✓ Updates language referencing acceptable requirements from the Facility Guidelines Institute (FGI) reflecting its division into three separate publications for hospitals; outpatient facilities; and residential health, care, and support spaces.
- ✓ Incorporates jurisdictional options (JO) from Standard 189.1, which are provisions that are notably impactful in achieving higher-performing building (e.g. exhaust energy recovery, dual water supply plumbing, automatic control for security lighting).