

ASHRAE's Public Policy Priorities: SY 2024-2025

• Support Sustainable Building Practices including Building Decarbonization to Mitigate Climate Change Buildings and their heating, ventilation, air conditioning and refrigeration (HVAC&R) systems directly and indirectly contribute to GHG emissions. Buildings are responsible for more than 35% of global primary energy use, 60% of global electrical energy use, and nearly 40% of energy-related greenhouse gas emissions worldwide. Eliminating greenhouse gas emissions from the built environment is essential to address climate change. Doing so will require recognizing buildings in the broader context of energy resources and additional demands on the electric grid. ASHRAE is advancing additional tools to support decarbonization across a building's entire life cycle, including building design, construction, operation, occupancy, and end of life. ASHRAE addresses emissions from building operation as well as those embodied in building materials and the construction process.

To advance building decarbonization, ASHRAE supports government adoption of robust building standards for new construction such as <u>ASHRAE Standard 90.1</u> (commercial), <u>90.2</u> (residential), <u>90.4</u> (data centers), 189.1/IgCC (high-performance green buildings), and <u>189.3</u> (high-performance health care facilities). ASHRAE supports the deployment of decarbonization technology such as next generation heat pumps, the adoption of stretch codes, building performance standards (<u>Standard 100</u>), electric-ready building requirements, and building benchmarking and labeling requirements. ASHRAE also supports the use of decarbonized combustion fuels and on-site carbon capture use and storage, as they become commercially available.

To evaluate whether a building or group of buildings meet a definition of "zero net energy" or "zero net carbon," ASHRAE recommends governments use and refer to <u>ASHRAE Standard 228</u>, Standard Method of Evaluating Zero Net Energy and Zero Net Carbon Building Performance.

- Promote Healthy Buildings and Reduce Indoor Environmental Risks
 Supporting the health and well-being of building occupants is the most important feature of the indoor environment. Providing healthy, safe and comfortable indoor environments are essential building services that must be achieved alongside energy efficiency, sustainability, and resiliency. ASHRAE recommends that policymakers cite ASHRAE standards and guidance in legislation and policies to provide healthy levels of IAQ, reduce the risk of airborne pathogen transmission, and decrease hazards in building water systems. At a national or subnational level, model building codes should be developed referencing ASHRAE Standards such as 62.1 (commercial ventilation and IAQ), 62.2 (residential ventilation and IAQ), 170 (ventilation of health care facilities), 241 (control of infectious aerosols), 188 (water system safety), and 55 (thermal comfort) to support healthy, safe, and comfortable indoor environments.
- Ensure the Orderly and Safe Phasedown of High-GWP HFC Refrigerants
 ASHRAE supports the global phasedown of the production and consumption of Hydrofluorocarbon (HFCs) refrigerants that have high-Global Warming Potential (GWP), including through legislation, regulations, and policy. Governments are mandating the near-term use of lower GWP refrigerants, which can have some flammability. ASHRAE Standard 15-2022, Safety Standard for Refrigeration Systems, and Standard 34-2022, Designation and Classification of Refrigerants should be adopted quickly to help ensure the safe use of these refrigerants. Where ultra-low GWP refrigerants are being applied, ASHRAE's priority is to ensure the transition to these refrigerants be managed so that they are used safely, efficiently, and cost-effectively.



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- Strengthen and Increase Diversity in the HVACR Workforce
 - Strong education in science, technology, engineering, and mathematics (STEM) to develop the pipeline of engineers, scientists, and technicians is critical to our future well-being and standard of living. ASHRAE supports policies that strengthen STEM at all educational levels, including through use of ASHRAE's extensive educational offerings. Requiring the use of ASHRAE certification programs helps ensure professionals have the skills and knowledge to improve building performance. ASHRAE supports expanding the HVACR workforce pipeline by broadening the population from which engineers, scientists, and technicians are recruited, including from disadvantaged and under-resourced communities. For the existing workforce, ASHRAE supports equipping these experts with the technical skills to address the challenges and opportunities for sustainable and healthy built environments that serve humanity.
- Advance Design and Construction of Resilient Buildings and Communities
 Resiliency is an important societal, economic, and technical issue that will have a major impact on how buildings are designed, renovated, and operated. For example, the increasing threat of wildfires has led ASHRAE to produce technical materials such as the Planning Framework for Protecting Commercial Building Occupants from Smoke During Wildfire Events.

As investments are made to improve infrastructure, buildings should be included, as they are vital for protecting the public when natural and human-induced events occur. A building's ability to recover and be available to occupants following such an event can have widespread economic and health implications. In particular, up-to-date standards (e.g. ventilation, pathogen mitigation, energy efficiency) are essential elements of providing resilient buildings. Unfortunately, most states have not adopted the most recent standards and codes that are based on the latest research and technological innovation, which could make building occupants more vulnerable to disasters and disease transmission. ASHRAE's priority is that policies affecting building design and building codes are developed and implemented by qualified engineers and HVACR professionals as unbiased technical experts, to advance a built environment that is as safe, efficient and resilient as possible.

• Support Adoption of the Latest Edition of ASHRAE's Standards into Building Codes
Energy efficiency can be improved significantly through the adoption and effective implementation of
the most recent version of Standard 90.1, Energy Standard for Sites and Buildings Except Low-Rise
Residential Buildings, which has provided the minimum requirements for energy-efficient design in the
United States for over 40 years. Residential buildings and data centers can also achieve improved
performance, save energy costs, and reduce climate impacts when jurisdictions adopt ASHRAE Standard
90.2 (residential) and Standard 90.4 (data centers). The inclusion of ASHRAE's most current standards in
building codes, rules, regulations, and laws enhances health, efficiency, and safety in the built
environment, and should be pursued. Authorities having jurisdiction should be adequately resourced
and empowered to adopt and enforce the newest edition of ASHRAE standards.