• **Support Sustainable Building Practices 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 final energy use and nearly 40% of energy-related greenhouse gas emissions worldwide. ASHRAE supports energy efficient building design practices, including net zero energy buildings, and the use of sustainable technologies on a global basis to help reduce GHG emissions. In addition to government adoption of robust energy standards such as ASHRAE Standard 90.1-2019, 90.2-2018 and 90.4-2019 and the 2021 IgCC for new construction, ASHRAE supports policies and programs to improve the energy performance of existing buildings, including through adoption of ASHRAE Standard 100-2018 and building benchmarking and labeling requirements.

ASHRAE is advancing strategies to reduce carbon emissions (decarbonization) in the built environment and is committed to helping local, state, and federal government entities reach their climate goals. The targeted carbon emissions include not only those directly resulting from the operation of buildings, but also those embodied in the materials incorporated into buildings and those generated by the building construction process itself.

• **Promote Healthy Buildings and Reduce Indoor Environmental Risks**

Supporting the health and well-being of building occupants is the most important element of the indoor environment. The provision of acceptable indoor air quality is an essential building service, and should be achieved while also improving building energy efficiency, sustainability, and resiliency. ASHRAE Standards for Ventilation and Indoor Air Quality (62.1 for commercial buildings and 62.2 for residential) should be adopted in building codes and regulations.

Importantly, ASHRAE supports policies that minimize pathogen transmission through building systems, including HVAC and water systems. With the world still being challenged by the coronavirus pandemic, ASHRAE will continue to disseminate the extensive resources developed by its Epidemic Task Force, including guidance documents, webinars, and training sessions. ASHRAE is happy to provide technical expertise and serve as a resource for policymakers and elected officials to help fight this pandemic. ASHRAE recommends that policymakers cite ASHRAE standards and guidance in legislation and policies to reduce the risk of pathogen transmission in buildings including in school facilities.

• **Ensure the Orderly and Safe Phasedown of High-GWP HFC Refrigerants**

ASHRAE supports the global phasedown of the production and consumption of Hydrofluorocarbons (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 15-2019, *Safety Standard for Refrigeration Systems*, and Standard 34-2019, *Designation and Classification of Refrigerants* should be adopted quickly to help ensure the safe use of these refrigerants. Additional ASHRAE resources include the *Update on New Refrigerants Designations and Safety Classifications* factsheet, which was developed through a cooperative agreement with UNEP. ASHRAE is also working with UNEP to assist developing countries with the adoption of state-of-art technologies and deployment of lower-GWP refrigerants that will protect the food supply and medicines including vaccines, as well as provide increased comfort and productivity while meeting sustainability goals.
• **Advance Design and Construction of Resilient Buildings and Communities**

Resiliency is an increasingly important societal, economic, and technical issue that will have major impact on how buildings are designed, renovated and operated. ASHRAE is committed to developing, publishing and maintaining a Resilient Building/Community Standard, accompanying Design Guide(s) and design tools, and educational programs.

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 building energy and indoor air quality (e.g., ventilation, filtration) standards 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. In addition, policies and regulations that require qualified HVACR engineering and technical professionals to be an integral part of building design, construction, and operation are encouraged as these can result in a more resilient and safe built environment.

• **Support Adoption of the Latest Edition of ASHRAE’s Energy 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 Buildings Except Low-Rise Residential Buildings, which has provided the minimum requirements for the energy-efficient design in the United States for over 40 years. Although its adoption in the U.S. by States is required by the Energy Conservation and Production Act (ECPA), most States are using dated versions of the standard, resulting in buildings with higher energy needs and costs. 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).

• **Strengthen and Increase Diversity in the HVACR Workforce**

Strong education in science, technology, engineering and mathematics (STEM) to develop the future supply of technicians, engineers and scientists 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. Policy makers should also consider requiring quality certification programs including ASHRAE’s which result in improved building performance.

ASHRAE’s Board of Directors has committed to proactively pursuing and celebrating diverse and inclusive communities understanding that doing so fuels better, more creative and more thoughtful ideas, solutions and strategies for the Society and for the communities our Society serves. We respect and welcome all people regardless of age, gender, ethnicity, physical appearance, thought styles, religion, nationality, socio-economic status, belief systems, sexual orientation or education.