

# Dispatches from ASHRAE's Government Affairs Office

## Commitment to Address Climate Change

ASHRAE, along with 24 of the world's leading building industry organizations, issued a statement to government representatives who attended COP27 committing to making changes to how and what we build to mitigate and adapt to climate change. As buildings account for about 40% of total global direct and indirect greenhouse gas emissions, the built environment is one of the leading drivers of climate change. Simultaneously, making changes to how and what we build is one of the most effective tools for mitigating and adapting to climate change and places a great responsibility on the built environment industry. The signatories to the statement committed to assuming a leadership role in decarbonizing the built environment and to publicly support the efforts of the government representatives that are Parties of the UNFCCC and who were planning to meet at the Conference of the Parties (COP) in Sharm El-Sheikh, Egypt.

## UNEP Report: Countries Not on Track to Meet Climate Commitments

In October 2022, the United Nations Environment Program (UNEP) released its *Emissions Gap Report 2022: The Closing Window—Climate crisis calls for rapid transformation of societies*. The report is an annual accounting of greenhouse gas emissions by country compared with their commitments. UNEP has produced this annual gap report since 2010. This year's report finds that countries are not on track to achieve their commitments, and policies currently in place are expected to result in global warming of 2.8°C (5°F) over the 21st century. The report concludes that in order to get on track for limiting global warming to 1.5°C (2.7°F), global annual greenhouse gas emissions must be reduced by 45% by 2030 compared with emissions reductions under current policies.

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## ASHRAE to Develop IAQ Pathogen Mitigation Standard

ASHRAE's board of directors announced its commitment to support the expedited development of a national indoor air quality (IAQ) pathogen mitigation standard, with a goal of finalizing the consensus-based, code enforceable standard within six months.

The increased focus on IAQ by governments and the public, along with the convergence of the flu, respiratory syncytial virus (RSV) and SARS-CoV-2 (COVID-19) threatening public health, makes ASHRAE's development of the pathogen mitigation standard of even greater importance, as jurisdictions and building owners look to a reputable and non-biased source for guidance and science-based building standards.

The White House Office of Science and Technology Policy (OSTP) has released a Fact Sheet which highlights multiple actions from across the federal government, including new actions from the General Services Administration (GSA) to improve ventilation across the federal buildings portfolio, steps from GSA's Green Proving Ground to explore incorporating germicidal ultraviolet irradiation into workplaces, OSTP launching a Federal Committee on Airborne Infection Research and continued research and development funding from multiple agencies.

To view the fact sheet, visit <https://tinyurl.com/52mbjuzb> ■

## Takeaways from AHRI Leadership Forum 2022

AHRI's annual Leadership Forum, which occurred late last year in San Antonio, Texas, brought together executives from the trade organization's members' companies and invited guests to discuss topics relevant to the industry.

AHRI is the trade association representing international manufacturers of heating, ventilation, air conditioning, commercial refrigeration (HVAC&R) and water heating equipment.

The following are some takeaways from the conversations and presentations:

- The industry and the world are continuing to struggle with supply chain issues. For example, the mere threat of a railway strike a few months ago generated a lot of attention in the industry, as have issues related to the trucking shortage.
- Onshoring and nearshoring are emerging trends. Supply chain issues have resulted in the need and desire to manufacture closer to where customers live.
- Demand for goods is increasing because consumer behavior has shifted toward goods and away from services. There has also been a shift to e-commerce.
- Causes for supply chain disruptions include a lack of capacity at port facilities and equipment (shipping containers, trucks, chassis), labor shortages and weather events such as natural disasters.
- One challenge for supply chains is that the tide of globalization is receding; another is the need for more effective trade and industrial policies.
- The United States is poised to prosper because it is one of the few countries in which people live near where energy exists. It also has demographic charac-

teristics that are far more favorable to manufacturers than other countries in terms of a skilled labor force.

- NAFTA 2.0 has been described as a masterstroke in terms of consolidating strength and future economic power for Canada, Mexico and the U.S. Related to this, Mexico manufacturing will ascend as China manufacturing lessens. Mexico was noted for having many suitable industrial areas, but not sufficient assemblers.
  - China is suffering due to a negative trend in their demographics, especially related to an aging workforce, lack of ability to create mid- and high-grade chips and the inability to effectively immunize its people. The zero-COVID strategy is based on the only tactic that has shown results: lockdowns. The country's best hope is a successful vaccine. However, news has suggested it overcounted its younger population by 100 million.
  - German manufacturing, and the rest of its economy, is in turmoil with the cost of natural gas and disruption of Nord Stream pipelines.
  - Decarbonization is here to stay and grow as more initiatives and governments sign on to these strategies.
  - With the imminent retirement of Baby Boomers, labor is set to become much more costly due to scarcity of new workers in many countries. One speaker said inflation is here to stay for the foreseeable future.
- Attendees also celebrated the September passage of the Kigali Amendment to the Montreal Protocol, paving the way for a swift global phasedown of high global warming potential hydrofluorocarbons, a large driver of climate change. The 2050 phasedown could prevent 0.5°C (0.9°F) of warming by the end of the century. ■

### E.U. to Decarbonize All New Buildings by 2030

The European Council reached an agreement to revise its Energy Performance of Buildings Directive to mandate that all new buildings should be zero-emission buildings by 2030 and that existing buildings should be transformed into zero-emission buildings by 2050. The built environment is responsible for roughly 40% of greenhouse gas emissions globally, so this effort in the European Union is seen as a crucial step for achieving the bloc's ambitious climate goals. The Council is mandating that by 2028 all

new buildings owned by public bodies must be zero emission and also proposes an ambitious timetable for decarbonizing existing building stock.

### IEA: Europe Must Act Now or Gas Shortages Loom

With the loss of Russian gas supply, and the expectation that China will continue to increase its demand for fuel and energy of all sorts, the International Energy Agency (IEA) is saying that the European Union needs to act now to avoid a natural gas shortage next

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year. While the EU is currently succeeding in filling in their strategic reserves before what is predicted to be a moderate winter, the real test will be next year when these reserves have been spent. In the meantime, the IEA says that it is crucial for more renewable energy to be brought online and for mandated improvements in energy efficiency to be accelerated.

### France and Other European Countries Withdraw From The Energy Charter Treaty

France will become the latest European Union country to leave the Energy Charter Treaty (ECT), which climate activists claim is being used by the fossil fuel industry to legally challenge environmental policies. The ECT was adopted in 1998 to protect foreign investments in the energy sector of other EU countries. However, the treaty has more recently been used by fossil fuel corporations to sue foreign governments who are enacting environmental policies that limit their market or reduce their income. RWE, for ex-

ample, brought legal action against the Netherlands, which enacted policies to transition its economy away from fossil fuels. This may have also played a part in the Netherlands' withdrawal from the ECT.

### DOE Seeks Input on Home Energy Rebate Programs

The U.S. Department of Energy (DOE) will be holding a series of listening sessions to seek input on the nearly \$9 billion provided in the Inflation Reduction Act for home energy rebate programs. The rebates are authorized for the installation of energy efficient and clean energy equipment like heat pumps, as well as a wide array of weatherization improvements to cut energy use. After holding the listening sessions, DOE is expected to issue a Request for Information (RFI) for public input in early 2023.

### ASHRAE President Mehboob and Treasurer Knight Speak at COP 27

The COP27 climate summit brought global leaders to Sharm El-Sheikh, Egypt, where a two-week climate summit hosted by the United Nations produced a historic agreement for a new global fund to pay for climate damage suffered by developing and poorer countries. ASHRAE President Farooq Mehboob and Treasurer Dennis Knight both provided remarks at a COP27 event, "Planning, Design and Development in the Global South: The 'How To' for People + Planet." This event, hosted by Architecture 2030, ASHRAE and the International Network of Women Engineers + Scientists, included a diverse panel of leading practitioners in planning, design and construction of buildings, landscapes and infrastructure.

### ASHRAE Submits Response to Treasury Department on Changes to 179D Tax Credit

The U.S. Department of Treasury and Internal Revenue Service called on the public to provide feedback on how to apply the \$270 million in tax incentive funding received from the Inflation Reduction Act. The 179D Commercial Buildings Energy-Efficiency Tax Deduction incentivizes building owners and designers to opt for building designs at least 25% more energy efficient than a reference building from ASHRAE/IES Standard 90.1. Presently, the tax deduction relies on ASHRAE/IESNA Standard 90.1-2007 because Treasury has not affirmed the 2019 version of the standard.

## ASHRAE Remembers Laurence (Larry) Felker



Laurence (Larry) Felker, Member ASHRAE, who was a mechanical engineer who joined ASHRAE in 1978, passed away in December. Felker was a recognized industry expert. He worked at Belimo for more than 31 years in sales and product management, where he was

most recently a senior product manager for Belimo's Fire & Smoke line, based in Reno, Nev. Originally from Chicago, Ill., Felker, 76, was vice president of engineering for Southside Controls, an author of countless articles, white papers and books. He coauthored ASHRAE's book, *Dampers and Airflow Control*, with his son, Travis. Felker also enjoyed teaching and passing his knowledge on to others via webinars, trade and customer events, and often at local ASHRAE Chapter meetings. Felker was passionate and knowledgeable of fire and smoke codes, standards and product applications. ■

ASHRAE's response to the Treasury Department declared that to meaningfully contribute to meeting the Administration's goal of achieving a 50% to 52% reduction from 2005 greenhouse gas emission levels by 2030, and a net zero emissions economy by 2050, the Department of the Treasury should align with the U.S. Department of Energy and affirm the most recent version of the standard, ASHRAE/IES Standard 90.1-2019, as the reference building standard. If affirmed, Standard 90.1-2019 would become the reference building standard four years from the date of affirmation.

### **New Study Indicates Countries' Emissions Reductions Pledges Must Increase to Meet Climate Goals**

A new study published in November in the journal *Nature Climate Change* found that even though many countries have increased their Nationally Determined Contributions (NDCs) since the Paris Agreement was signed in 2015, the near-term goals focused on emissions reductions before 2030 must be strengthened further to meet the Paris Agreement goal of limiting global warming below 1.5°C (2.7°F). The paper considers multiple emissions pathways and concludes that ratcheting up near-term goals for reductions within the next eight years is essential to limiting temperature changes prior to 2100.

### **U.S. and UAE Form Partnership for Accelerating Clean Energy**

On November 1, the U.S. and United Arab Emirates agreed on a \$100 billion Partnership for Accelerating Clean Energy to deploy 100 gigawatts of clean energy by 2035. The plan includes four areas of investment: clean energy innovation, deployment and supply chains; carbon and methane management; nuclear energy; and industrial and transportation decarbonization. In addition to these four areas, both countries have agreed to prioritize investments in commercial projects in developing and low-income countries.

### **South Africa Details \$8.5 Billion Climate Funding Plan**

In the week before the COP27 summit in Egypt, South Africa announced its plan to spend \$8.5 billion pledged last year by the U.S., U.K., E.U., Germany and France. The South African government estimates \$84 billion is needed to address the 452 million tons (45%) of the emissions attributed to electricity generation. The \$8.5 billion will be divided such that \$7.6 billion will be

invested in clean energy infrastructure, \$700 million for green-hydrogen projects, and \$200 million to bolster their electric vehicle industry. The funding will mostly be distributed through low-cost loans and commercial credits, but President Cyril Ramaphosa says that this plan will only work if there is more grant funding, concessional loans and investment packages.

### **Canada Releases Energy Efficiency Scorecard**

The 2022 Canadian Energy Efficiency Scorecard is an assessment of Canadian provinces and territories and their policies and outcomes realized within an 18-month window (January 2021 to June 2022). The scorecard is released each year by Efficiency Canada, an energy efficiency organization housed at Carleton University Sustainable Energy Research Center. The top performers, and their scores, were British Columbia (55), Nova Scotia (50), and Quebec (48). On the contrary, Saskatchewan (16) and Newfoundland and Labrador (17), and Alberta (19) had the lowest scores. All provinces/territories struggled with energy efficiency in buildings, with the highest score being 10/19.5; the average score for buildings was 4.2/19.5. The report also provides five recommendations to support energy efficiency, expand the scale and scope of low-income energy efficiency, mandate efficient and zero-carbon heating, define net-zero building performance standards, integrate with existing provincial programs and create targets and expectations for provinces.

### **IEA Releases Impact of Coal in Net-Zero Transitions Report**

The International Energy Agency (IEA) released a world energy outlook special report, "Coal in Net-Zero Transitions: Strategies for Rapid, Secure and People-Centered Change." The report outlines how coal will influence, and be influenced by, the world's ambitions to reach net-zero greenhouse gas emissions. One issue realized in the report is that over 95% of global coal consumption is attributed to countries that have not made net-zero emission pledges. The report modeled the 2050 outlook in coal demand for both a scenario based on the existing status quo and a scenario where countries with net-zero emission pledges reach their goals, finding a 30% and 70% decrease in coal demand, respectively. ■

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