

Dispatches from ASHRAE's Government Affairs Office

Member Speaks at the Global Clean Energy Action Forum



Beth Tomlinson P.E., Member ASHRAE, (far right) spoke on a panel entitled, “Towards a Buildings Breakthrough: Raising the Performance of the Built Environment.” The session was organized by the United Nations Environment Programme (UNEP), in partnership with the Global Alliance for Buildings and Construction (GlobalABC), United Nations Economic Commission for Europe (UNECE), High Performance Buildings Initiative (HPBI) Secretariat and the Green Building Alliance. With buildings accounting for 37% of energy-related carbon emissions, understanding how to mitigate greenhouse gas emissions from buildings is imperative. Tomlinson spoke about what ASHRAE is doing to create technical resources to advance building decarbonization, including developing standards that address carbon, publishing several new guides and conducting training and education.

ASHRAE Joins Letter of Support for e-Access Act

ASHRAE joined a letter of support to the U.S. House Energy and Commerce Committee in support of the Access to Consumer Energy Information Act (e-Access Act). Introduced by Representative Peter Welch, the e-Access act ensures consumers have access to their historical and existing gas and electric consumption. Access to reliable, accurate and near-real-time energy

consumption data is vital to decarbonize buildings. The data can be used for energy management information systems (EMIS), automated building system optimization and other technologies associated with building decarbonization—load shifting, demand response, energy efficiency, grid flexibility and consumer habits. Consumers will also benefit from lower energy costs if this data is used to implement techniques that reduce peak power demand.

The Eiffel Tower Turns Its Lights Off Earlier

To fight excess energy demand and potentially rationing blackouts, the Eiffel Tower will turn off its iconic lights around midnight instead of 1 a.m. The effort shows the true degree of stress put on the power grid by the Russian invasion of Ukraine. While the gesture is largely symbolic, Paris will also be turning off the lights at other government buildings at 10 p.m. and may potentially extend the conservation measure to other monuments such as the Panthéon and the Arc de Triomphe. During the winter, the city of Paris also plans to lower the temperature in public buildings by 1°C (1.8°F) during working hours and 3°C (5.4°F) on weekends.

Canada Debate: Is Air-Conditioning a Fundamental Right?

Climate Proof Canada, a coalition of private and public-sector stakeholders, is starting a conversation with the Canadian national government on whether summer cooling should receive the same considerations as winter heating. These considerations are gaining traction with just a few weeks until the United Nation's international climate conference this month, where government officials are expected to unveil Canada's National Adaptation Strategy. The coalition does not suggest the installation of new air conditioning units in Canadian homes (40% currently lack air-conditioning); rather, they advocate to protect the most vulnerable populations by using low-cost energy efficiency measures, residential heat pumps, non-heat-emitting lighting and improved ventilation.

U.K. and Czech Governments Cap Energy Bills

Winter can be a heavy burden on both the electric grid and on consumers' finances—governments are looking to provide aid by capping energy costs. In the U.K., the government will pay for nearly half of all business energy bills for six months (beginning last month), which is projected to cost between \$11 billion and \$22.6 billion. Consumers previously saw a similar benefit through a two-year plan that caps average household bills for heating and electricity at \$2,828 per year. The Czech government will be providing up to \$1.2 billion to help businesses survive the high energy costs spurred by Russia's invasion of Ukraine. The aid is expected to be directed at larger, high-consumption businesses. Individual companies will be able to receive up to \$8.1 million.

South Africa Forced into Nationwide Blackouts

The state-owned power utility in South Africa, Eskom, is implementing a rolling blackout schedule to save electricity and ease grid demand. Eskom produces almost 95% of South Africa's electricity, sourced from aging and poorly maintained coal-fired power stations. The blackouts come with just a few hours' notice—they first required businesses and homes to go without electricity for more than 10 hours a day, which has since been reduced to eight hours a day. Eskom has used 2,000 diesel-powered generators in the interim until it can

procure 1,000 megawatts of electricity from renewable energy sources.

Thailand Starts Carbon Credit Exchange

To reach its goal of carbon neutrality by 2050 (40% by 2030), Thailand has launched its first carbon credit exchange composed of 12,000 private companies across a variety of sectors. The Federation of Thai Industries (FTIX) will allow firms and government agencies to trade carbon credits and track their emissions, which would be made publicly available. The FTIX currently only operates within Thailand, but there is hope that the market will grow across Southeast Asia.

DoD Institutes Climate Drill for Blackout Responses

The U.S. Defense Department (DoD) and each of its military departments are now required to conduct at least five blackout scenarios to prepare for increased power outages caused by climate change. The "energy resilience readiness exercises" have taken place at a few bases over the last two years but are now mandatory across the Defense Department. These drills test readiness and response to power outages at military bases, simulating blackouts caused by natural disasters or other events.

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Kaimi Gao, Lead R&D Engineer/Scientist, Honeywell Advanced Materials, discusses the test setup of a residential heat pump system in the outdoor test chamber.

Honeywell Showcases R&D Lab

BUFFALO, N.Y.—Honeywell Advanced Materials showcased its Buffalo, N.Y., Research and Development lab during a recent tour.

Kaimi Gao, lead research and development engineer and scientist at Honeywell Advanced Materials, explained that the Refrigeration Lab tests refrigerants under different conditions for different applications and climates in its outdoor chamber.

The Refrigeration Lab also has an indoor chamber. Ryan Hulse, director of research and development said that some of the work involves retrofitting old systems with Honeywell's HFO refrigerants. "Most [customers] don't want to replace their equipment that's in their supermarket. They want to keep that same piece of equipment, and so they challenge us. They say, 'How can you make your new refrigerant work with our equipment with minimal changes.'"