NEWS RELEASE

Johnson Controls Helps Customers in Asia Pacific Meet Decarbonization and Sustainability Goals

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CORK, Ireland, July 14, 2021 /PRNewswire/ -- Johnson Controls (NYSE: JCI), the global leader for smart, healthy and sustainable buildings, today announced three landmark partnerships with companies in Asia Pacific to help meet their environmental, social and governance (ESG) goals as well as net zero carbon commitments.

- **Digitalization of building systems for Standard Chartered Bank, multiple sites across Asia Pacific**
  - Johnson Controls collaborated with CBRE and Standard Chartered Bank to implement its OpenBlue Enterprise Management (OBEM) system – a cloud-based solution that identifies and resolves energy and operational inefficiencies – in the Standard Chartered Hong Kong office. The successful pilot saw 7% annual energy savings and won the International Facility Management Association Award of Excellence in 2020. To date, OBEM has been installed in more than 20 of the Bank's office sites and will eventually cover more than 90 buildings across Asia Pacific, including China, India, Malaysia, Republic of South Korea, Singapore and Thailand. This digitalization effort establishes a strong foundation for sustainability management for Standard Chartered Bank, which is committing to net-zero carbon emissions from its own operations by 2030.
- **Retrofit with energy performance contracting for Rose Theater, Japan**
  - Located at the foot of Mount Fuji, the Rose Theater adopted energy performance contracting for its retrofit to improve its energy and operational efficiency after over 25 years of operations. Johnson Controls offered an advanced energy saving estimation that allowed the customer to receive public subsidy. The proposal consisted of a 15-year energy performance contract which included Metasys, Air Handling Unit (AHU) inverter and its overhaul, a carbon dioxide monitoring system for inverter control and various efficient heating systems. Johnson Controls solutions resulted in a more comfortable indoor environment, and an efficient facility management for the various amenities on-site, including auditoriums as well as exhibition, meeting, tea-ceremony and practice rooms. With this retrofit, the Rose Theater will be able to reduce energy consumption by 39% and carbon

dioxide emissions by 42%, while shaving 40% off energy costs. The entire retrofit was completed ahead of time so the Rose Theater could reopen earlier than planned.

- **Heat pump application in Beijing Municipal Administrative Center, China**
  - Beijing Municipal Administrative Center is now a low-carbon eco-city showcase for the efficient use of geothermal energy. Johnson Controls partnered with the Center to build an efficient, intelligent and reliable large-scale district heating and cooling system. In a single heating season of four months, the heat pump system could replace 12 million cubic meters of natural gas consumption, equivalent to savings of 15,000 tons of standard coal, 40,000 tons of carbon dioxide emission reduction, and 100,000 additional trees planted around the energy station. The solution comprises four ground-source heat pump systems with a total capacity of 39 megawatts installed in one of the energy stations, which provides efficient central heating and cooling for the administrative offices with total building area of about 960,000 square meters using geothermal energy.

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Visal Leng, Vice President and President, Building Solutions, Asia Pacific, Johnson Controls, said, "We recognize the growing commitment of companies to decarbonize and the challenges they face, including capital and knowledge gaps. By working with a range of customers across the region, we have found innovative pathways for them to achieve their sustainability goals. Our OpenBlue digital technology is proven to reduce energy consumption considerably and reduce environmental footprint significantly."

Heat pump technology is available but underutilized in Asia Pacific. Heat pumps can be applied in many industries where hot water is used abundantly such as in food production, semiconductor manufacturing and hotels. There is immense potential to reduce carbon emissions by replacing boilers and furnaces, which use fossil fuels, with heat pumps. Not only are heat pumps three to four times more energy-efficient than boilers and furnaces in general, but they also can render the heating process carbon-neutral when paired with renewable energy. Mr. Leng added, "In APAC, we are seeing increasing interest in heat pumps, particularly from countries with stricter environmental regulations such as New Zealand and companies with carbon-reduction goals." The breadth of the Johnson Controls portfolio – in terms of size, efficiency and temperature range – is world-class, and continues to help customers reduce their carbon emissions.

Energy efficiency continues to be the low-hanging fruit for decarbonization in the built environment sector. The pandemic has disrupted the commercial property sector and underscored the need for better indoor air quality, resulting in greater need for retrofit. This is a window of opportunity to build back better. To defray some upfront capital costs, companies can tap into green incentives and loans available by the government and banks.

"The need and demand for a 360-degree net zero carbon solution is clear. Businesses, governments and global coalitions have all set ambitious sustainability goals over the next two decades, with many aspiring for decarbonization by 2030," said Katie McGinty, vice president & chief sustainability, government and regulatory affairs officer at Johnson Controls. "Our OpenBlue fully open architecture platform can drive 50% and more in energy efficiency improvement and corresponding carbon emissions. We know that decarbonization of buildings is part of the solution as buildings represent some 40% of global emissions."

Digitalization is a key enabler for companies and organizations to achieve net zero by 2050 or before. Johnson Controls offers solutions that guide customers at different stages of their digitalization journey to deliver on net-zero outcome and risk management goals. For example, getting equipment connected to the cloud with analytics for optimization is part of its ongoing OpenBlue service and solutions offering. The company is also working with the largest developers and most forward-looking educational institutions in the region to figure out pathways towards autonomous buildings through digital twins and artificial intelligence.

Johnson Controls has already set ambitious emissions reductions targets, which were recently approved by the Science Based Targets Initiative – an independent organization that assesses corporate sustainability claims. As part of its environmental sustainability commitments, Johnson Controls aims to cut operational emissions by 55% and reduce customers' emissions by 16% before 2030. Its OpenBlue platform for optimizing building sustainability will be central to fulfilling these goals and ultimately creating an environment for healthy people, healthy places and a healthy planet.

About Johnson Controls:
At Johnson Controls (NYSE:JCI), we transform the environments where people live, work, learn and play. As the global leader in smart, healthy and sustainable buildings, our mission is to reimagine the performance of buildings to serve people, places and the planet.

With a history of more than 135 years of innovation, Johnson Controls delivers the blueprint of the future for industries such as healthcare, schools, data centers, airports, stadiums, manufacturing and beyond through its comprehensive digital offering, OpenBlue. With a global team of 100,000 experts in more than 150 countries, Johnson Controls offers the world's largest portfolio of building technology, software as well as service solutions with some of the most trusted names in the industry. For more information, visit www.johnsoncontrols.com or follow us @johnsoncontrols on Twitter.

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