

Johnson Controls files 200th U.S. Patent Application and receives 90th U.S. patent approval for OpenBlue Energy Optimization Innovations

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CORK, Ireland, July 26, 2021 /PRNewswire/ -- Johnson Controls (NYSE: JCI), the global leader for smart, healthy and sustainable buildings, today announced it has surpassed a milestone by filing 200 U.S. utility patent applications for innovations surrounding its OpenBlue Central Utility Plant offering and related energy optimizing product offerings. Additionally, it received its 90th U.S. patent grant for innovations related to OpenBlue Central Utility Plant product and energy optimization innovations. Central Utility Plant is a key component of the newly announced OpenBlue NetZero Buildings as a Service offering.

The most recent grants, U.S. Pat. No. 11,061,424, awarded July 13th, 2021, and U.S. Pat. No. 11,036,249, awarded June 15, 2021, include innovations which allow for a building energy optimizer to predict regional peak demand time periods. Peak regional demand (associated with both high cost and high emissions) predicted by the Johnson Controls system can be used to optimize energy performance based on the probability that any given period of time will be a peak contribution period.

"The innovations are being driven by our customers, who have expressed an urgent need to reduce their carbon footprint and make their buildings smarter, healthier and more sustainable -- especially as the world navigates climate change," said Karl Reichenberger, Johnson Controls vice president of Intellectual Property.

A recent Net Zero Pulse Survey among a large group of building professionals shows acceleration of net zero goal setting -- over 90% have significant goals to reduce carbon emissions and energy consumption by 2030 and beyond.

Johnson Controls' OpenBlue Central Utility Plant (CUP) can monitor thousands of building variables, using information from connected equipment and external sources such as weather forecasts and utility rates. This allows customers to fully optimize their building management systems. CUP automatically generates and implements optimization decisions, controlling equipment from a variety of manufacturers.

"This type of intelligence allows for Johnson Controls to help our customers solve large-scale problems that are unique to the built environment in a way that can both curb carbon emissions and their costs," said Terrill Laughton, vice president and general manager, Energy Optimization, Johnson Controls.

More than 40 Johnson Controls customers have already purchased CUP, allowing them to reduce energy costs, increase productivity, ensure equipment reliability and reduce greenhouse gas emissions.

For example, at Children's of Alabama, a pediatric medical center in Birmingham, Johnson Controls designed and built – and now operates and maintains – a new central utility plant. Johnson Controls also developed an innovative plant simulator that allowed the medical center to significantly cut capital expenditures. As a result, Children's of Alabama has reduced its natural gas use by 69% and is saving \$250,000 annually, with the potential to save \$450,000 a year over the life of a 25-year contract with Johnson Controls.

\$3 billion investment in engineering, R&D

Over the past five years, Johnson Controls has invested close to \$3 billion in engineering, research and development and has increasingly been awarded patents by global patent offices. These innovations reflect R&D investments in OpenBlue and other digital offerings, including air quality, energy optimization and sustainability of services, systems and equipment.

"Johnson Controls is on an important journey -- transforming from an industrial company to a digital buildings

technology company powered by software, connectivity, data and artificial intelligence," said Michael Ellis, executive vice president and chief customer and digital officer, Johnson Controls. "We are enabling our customers to achieve new values in sustainability and energy enhancements through building platforms, allowing customers to optimize their building management systems.

Beyond the energy optimization portfolio noted above, Johnson Controls is separately investing in additional intellectual property related to OpenBlue Digital Twin and OpenBlue Clean Air.

Earlier this year, Johnson Controls was named a Clarivate Top 100 Global Innovator™ 2021 for the sixth straight year. The 10th edition of the annual report from Clarivate Plc, a global leader in providing trusted information and insights to accelerate the pace of innovation, identifies companies at the pinnacle of the global innovation landscape by measuring their ideation culture that produces patents.

As a leader in the buildings space for more than 135 years, Johnson Controls has been a pioneer in sustainability. It is ranked in the top 12% of climate leadership companies globally by CDP and was recently named again to the World's Most Ethical Companies® Honoree List and one of Corporate Knights' Global 100 Most Sustainable Companies.

To learn more about OpenBlue and Johnson Controls' other innovations, go to https://www.johnsoncontrols.com/openblue.

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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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