

OpenBlue

Net Zero Buildings

Is your organization's journey to net zero headed down the wrong path?

Here's the sustainability safety net to get you back on track.



John Fleming, VP, Global Commercial Innovation, Sustainable Infrastructure, Johnson Controls

When making budgeting and spending decisions, business leaders are putting their net zero effort at risk when they could be transferring risk instead.

Organizations in every industry have made, are making, or will soon make commitments to achieve net zero carbon emissions targets. Companies know they must act quickly for the good of the planet and their business. Organizations with high environmental, social and governance (ESG) scores benefit from up to six percent lower cost of capital, while 80 percent of millennials want to work for a company that's strong on corporate social responsibility (CSR).

That's why many major companies have started issuing sustainability reports that lay out their ESG goals. Over 2,000 companies have even set a science-based carbon target, while around one-third of Europe's largest public companies are pledging to reach net zero by 2050.

In a Johnson Controls survey of over 1,000 professionals who oversee facility operations in North America, around 90 percent of respondents have set significant goals to reduce carbon emissions and energy consumption by 2030 or so.

Roadblocks to sustainability

Most companies run into significant challenges on the path to net zero. Many cannot get a handle on their current sustainability performance because it's hard to aggregate data from a myriad of sources. Others are so overwhelmed with the financials, they freeze on their path to net zero or, worse yet, they never start.

Even large businesses may struggle to make upgrades to bolster their buildings' energy efficiency or afford expensive new equipment and smart building technology. Instead, immediate budgetary needs, like paying employee salaries and product development, take precedent.

An easier road to net zero

There are methods that companies can use to achieve their net zero and other renewable energy goals that are quantifiable and financially responsible.

The Johnson Controls risk transfer program offers a service and partnership model that allows organizations to pay for infrastructure improvements through their operating budget over time. This enables them to achieve their sustainability targets while focusing their capital on their core mission.

The Johnson Controls OpenBlue Net Zero Buildings as a Service model means customers can pay a predictable, fixed monthly fee to achieve their net zero goals without taking on the associated financial risk. They can also rely on Johnson Controls, a company with end-to-end experience, over 60,000 building experts and another 1,000 sustainable infrastructure experts, to design, digitalize and deploy a full net zero offering.

Already, Johnson Controls Capital Funding Solutions has funded \$7.2 billion in active guarantees for more than 550 outcome-based projects. Since January 2000, Johnson Controls has saved its customers more than 35.2 million metric tons of CO₂e and \$7.2 billion through energy and operational savings.

“Looking at the uncertain world we live in at the moment, if you can reduce risk in any way, that’s a great play,” says Adam Savitz, Sustainability Director for Europe, Middle East, Africa and Latin America at Johnson Controls.

“If you don’t start now, you’re going to get caught either in a bad position against your competitor, struggling for investment dollars or trying to comply with regulations. You have to make some level of progress towards decarbonization or you’re going to be in trouble,” says John Fleming, Vice President of Global Commercial Innovation for Sustainable Infrastructure at Johnson Controls.

Partnering with Johnson Controls

Organizations begin this process by working with Johnson Controls to set a goal, such as becoming net zero by 2050.

Next, Johnson Controls subject matter experts evaluate the nature of the buildings, including the age of equipment and potential to install new upgrades to achieve the energy and efficiency goals.

If a customer can’t afford a recommended upgrade – such as installing a new energy-efficient chiller or HVAC system – Johnson Controls covers the cost. Johnson Controls buys the equipment upfront or helps the customer source green bonds or grants to cover some, or all, of the costs. The service pays for design, engineering, installation and equipment maintenance. Companies pay for improvements over time through the Johnson Controls monthly service fee.

Customers can track their progress using the OpenBlue suite of connected solutions. One of these solutions is the OpenBlue Net Zero Advisor, which is digitally connected to building equipment with sensors that transmit data to continuously monitor, measure and verify systems – all of which appear on a real-time performance dashboard. OpenBlue Net Zero Advisor also analyzes energy, water, materials and greenhouse gas emissions to make sure the agreed-upon reductions are being met.

If those standards are not met, the customer pays less for the given month based on the exact shortfall. “If your new chiller doesn’t perform as well as we’re expecting, it consumes more energy rather than less, then we compensate the customer by giving them a credit against that,” says Ben Speed, Vice President of Global Structured Finance for Johnson Controls Capital. The system also ensures that Johnson Controls will quickly resolve the issue.

“Risk transfer takes away some of the fear or surprise from the client,” adds Savitz. “Johnson Controls is an aggregator, a one-stop shop for companies.”

How to partner with Johnson Controls – the next steps

OpenBlue Net Zero Buildings as a Service is an opportunity for organizations to partner with Johnson Controls. Financing programs are available for all sizes and types of companies.

Johnson Controls will determine whether a company is a good fit for the program by assessing the organization’s creditworthiness along with the current state of its infrastructure.

The stronger a company’s credit, the longer Johnson Controls can finance the organization. Top-tier creditworthy customers, like governments and Fortune 500 companies, may obtain funding for 20-25 years, and there are a range of options for clients in other brackets.

With all customers, Johnson Controls will take its time. “We like to send engineers on-site to touch things and see what’s under the hood, and frankly customers want us to do that,” says Speed.

Results: Real energy and cost savings while retaining capital

Many different types of organizations enjoy the risk transfer benefits of the as a Service model, including schools, college campuses, data centers and healthcare facilities, as well as both commercial and industry players worldwide.



For example, a few years ago, Johnson Controls customer St. Edward's University in Austin, Texas, wanted to make campus-wide updates to modernize its facilities, enhance sustainability and deliver a better student experience. At the same time, the university needed a funding method that would allow it to maintain budget neutrality.

The Johnson Controls financing team worked diligently with university leadership to develop a contingent payment program that gave St. Edward's the flexibility to pay for facility updates over time, ensuring the university's board could preserve capital by only taking on revenue-producing debt.

By working under a contingent payment program, the university is only responsible for \$1.2 million of the \$6.3 million total cost upfront. It will pay off the rest over a 15-year term through its energy savings without adding to the operating budget.

As a result, St. Edward's is projected to reduce its annual energy consumption and utility costs by 18 percent and 13.4 percent, respectively. The sustainability updates will contribute to a greener community and its modern infrastructure will attract prospective students.

Similarly, in 2008, Children's of Alabama wanted to maximize energy savings on a new 14-story patient tower in Birmingham. The pediatric medical center turned to Johnson Controls, which has designed, built, operated and maintained the hospital's new central utility plant. Johnson Controls offered a 25-year contract to operate and hold all the risk for the center's building systems.

The update helped the hospital reduce its natural gas usage by 69 percent. So far, Johnson Controls has met or exceeded its performance guarantees, thus saving the hospital nearly \$250,000 annually. When the updates are complete, Children's of Alabama expects this portion of the project to save \$450,000 a year.

By using the risk transfer program, these organizations could simultaneously enact measurable improvements and free up cash. "We take the financial risk, and that gives the customer a lot of power and authority," says Speed. "This is a good confidence builder for them."

It's also a great way to drive organizations to fight climate change. With Johnson Controls, customers can accelerate their path to net zero with less risk and more results – impact guaranteed.

About OpenBlue

OpenBlue is a complete suite of connected solutions that serves industries from workplaces to schools, hospitals to campuses, and beyond. This platform includes tailored, AI-infused service solutions such as remote diagnostics, predictive maintenance, compliance monitoring, advanced risk assessments, and more. A dynamic new space from Johnson Controls, OpenBlue is how buildings come alive.

