

OpenBlue

Net Zero Buildings

Businesses are getting derailed on their journey to net zero

How to overcome the top four roadblocks

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Chances are your company is already behind on its net zero journey. This is the case for many businesses, despite sustainability ranking as the number one priority for 80 percent of companies surveyed in a commissioned study conducted by Forrester Consulting.

There are many reasons why. The process of analyzing energy usage, creating a strategy, forecasting resource allocations, purchasing and installing new equipment, and tracking results can be overwhelming and expensive. Launching a decarbonization project at a single facility can take up to a year. Meanwhile, the clock keeps ticking: The Paris Agreement global goal to nearly halve emissions by 2030 is only seven years away.

Unless your company possessed the foresight (or luck) to start decarbonizing years ago, you are probably racing to meet this pending deadline. Fortunately, achieving a net zero goal is still possible, particularly if you understand the obstacles and how to overcome them.



Obstacle #1: With a big target, companies move slowly, making limited and disjointed progress.

Moving from a theoretical plan on a PowerPoint slide to designing and deploying a real decarbonization program requires substantial investments and decision-making. With a target this hefty, it's tempting to try to "eat the elephant"

in small, disconnected bites, through narrowly-scoped audits, sequential pilots and easy-to-handle procurement engagements. However, a piecemeal approach runs the risk of pitting sustainability partners against one another instead of promoting alignment, collaboration and speed.

Solution: Select a partner who can help develop an actionable and detailed game plan with measurable milestones to keep you on track.

Find a sustainability expert who can act as a player-coach, advising you on the next best step, before executing it to help you succeed. The fastest and smoothest path to net zero is selecting a one-source partner who can act as sustainability consultant, deployment expert and service provider to supplement your company's expertise, while also taking a leadership role. A partner who is taking a comprehensive approach to this process can help align internal stakeholders and create a plan focusing on execution.

Companies doing it right are contracting with their partner on a pilot site program – which entails development, construction, installation and measurement – while simultaneously rolling out an overall decarbonization plan. They are reporting the pilot's results concurrently, not sequentially, with the overall portfolio planning. That's because, with 2030 looming, markets will hold companies accountable to deliver on their commitments now.



Obstacle #2: The process is costly; how to pay for it is a real battle.

There's no doubt decarbonization is expensive. In fact, companies can expect to pay tens of millions of dollars. As a result, leaders may be paralyzed by sticker shock or feel tempted to reallocate those funds for projects that immediately boost the bottom line. Also, determining which department budget is the source for the decarbonization funding can be politically difficult. It's a thorny question of whether the parent company will fund the initiative, local sites will foot their own bills or if it's a joint program.

However, if every company looked at the price tag and cancelled its plan, decarbonization efforts would completely evaporate and businesses would ultimately pay a steeper price as mounting environmental crises upend the global economy.

Solution: Factor the cost of carbon metric into your decision-making for net zero goals.

While there's no way to put an exact price tag on the cost of carbon, federal agencies—including the Environmental Protection Agency (EPA) – provide a solid gauge by estimating the social cost of carbon (SC - CO₂). Think of it as the monetary equivalent of the long-term damage a ton of carbon dioxide (CO₂) emissions causes in a year, adding the value of damages averted by making small emissions reductions and factoring in the financial cost of environmental damage. That estimate is around \$50 per ton.

With this knowledge, a company can develop detailed decarbonization goals. And it can use those goals to select a sustainability program that will preserve capital, achieve on-time and on-budget targets and identify government or utility incentives and grants to support decarbonization efforts.



Obstacle #3: Companies have never done this before and don't have the skill sets.

While energy efficiency efforts have been around for decades, massive decarbonization projects are much newer. Most companies are not familiar with the process, technology or metrics essential to decarbonizing buildings. In addition to this, forming a comprehensive team of experienced engineers, building technologists and sustainable infrastructure experts is challenging, as each company is competing for the same small talent pool.

Some companies opt for the do-it-yourself route, but often get sidetracked by competing priorities. Others seek out expert partners, but struggle to find one that can oversee multiple sites across the globe, which, given the prohibitively expensive cost of procuring an expert in every region or location, can be vital.

Solution: Find a partner with global reach that has experience achieving net zero targets.

There are few firms that offer local delivery models around the world, so act quickly before they outstrip their capacity. When seeking a global expert in corporate decarbonization, look for these key traits:

- A focus on outcomes that customizes the plan, technical solutions and reporting on results to meet your goals. This customization includes not only execution, but also considers financing models and risk transfer needs.
- Proven internal technical experience complemented by an ecosystem with established global partners to accommodate comprehensive solutions.
- Lessons learned from the partner's own decarbonization journey, including goals, as well as challenges faced and

overcome. Find companies like Johnson Controls with firsthand knowledge and decades of data from working with clients globally. With nearly 2,000 locations worldwide, Johnson Controls serves customers in 150 countries.

Obstacle #4: Organization and its executives do not share a unified approach.

While many CEOs are committed to decarbonization, their endeavors will fail if they cannot unify efforts throughout their organizations. The median CEO tenure is only five years, according to a PwC study of CEO successions. That means most leaders making decarbonization commitments do not stick around long enough to see their strategies through.

There's also the vexing question of how to structure a company to effectively implement decarbonization. Some establish sustainability departments, which can be as small as three to four people. However, these teams rarely wield enough power to make real change. As a result, many organizations find themselves wondering who actually "owns" their decarbonization plan.

Solution: Establish sustainability training and SMART goals at every level of the organization especially for leadership.

To move forward with their decarbonization program, companies need a group of decision-makers with members from multiple departments, including procurement, finance, legal, operations, strategy, facilities, construction and real estate. Effective training and clearly written decarbonization goals at the individual, facility and organizational levels will help unify the strategic and tactical approaches, while also reducing competing priorities.

This group of dedicated net zero leaders can streamline the process and keep internal and external players accountable to key milestones.

Selecting a partner with experience navigating matrixed organizations can make sure your sustainability program involves all key stakeholders from the moment your program is launched to its conclusion.

Reaching goals with the OpenBlue Net Zero Buildings as a service

When Johnson Controls was implementing a decarbonization program at our facility in Norman, Oklahoma, we ran into our

own share of the aforementioned obstacles, even in a region known for its low cost of energy. What we discovered was that we needed to heed our own advice, with the OpenBlue Net Zero Buildings as-a-service fixed-fee approach and operational expense model to design, digitize and deploy. The fixed-fee approach was preferable to funding the service through savings. Here's how we got on track:

First, we selected members for our Johnson Controls Sustainable Infrastructure team, who would navigate our global executives and local leaders through the eight-step journey to net zero, a process Johnson Controls developed for its as-a-service model to provide a pathway to achieve emission reduction commitments.

Then, we assessed the goals and objectives, determining that the price of the Norman net zero project exceeded our planned capital budget. With this, the team took a different look at how we calculated return on investment. Working through that reframing, along with a different finance model (an as-a-service fixed payment model instead of capital expenses), helped stakeholders in Norman and at headquarters reach their goals. This included incorporating the cost of carbon, as well as the cost of not achieving net zero.

With alignment on how to finance the effort, our Sustainable Infrastructure team tapped into our network of net zero advisors, engineers, project managers, renewable supply advisors, solar and battery storage experts, procurement specialists and financial experts to determine the best path forward.

These experts helped us to provide each team leader with measurable targets to achieve each year. While sustainability has always been part of the fabric of Johnson Controls, we took the step of ensuring that we amplified that commitment in everything we do, from our value statement, to training, to performance reviews, to quarterly all-hands meetings. This not only built excitement, but created unity and alignment towards the target. Our goal is for every employee and leader to take pride in knowing that they work in a net zero environment, throughout the program implementation and operation.

Conclusion: As-a-service changes the expense flow and it's not too late to start.

With guaranteed outcomes, the risk in achieving and maintaining net zero falls to Johnson Controls.

This allows the contracting company to procure the needed equipment and supplies with minimal capital investment on their part. There is no ballooning budget.

Instead, there is one budget line for net zero. This is a known yearly expense, simplifying decarbonization budgeting. It's set up as an ongoing, consistent service expense instead of a large cap expense. It allows companies to get a jump start on their goals, while providing greater alignment on corporate strategy and execution.

It's not too late to start your decarbonization journey, but that window is getting smaller by the day. Companies do not have the luxury of time to ignore the obstacles. Each delay is more costly. The time is now to bring together the right team to predict and navigate the obstacles to achieving your targets on time and on budget.

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.



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