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Reducing our reliance

Sustainability's role in post-pandemic manufacturing

MANUFACTURING MANAGEMENT

Foreword

The first few months of 2022 have been dominated by a cost-of-living crisis, spurred largely by rising energy costs caused by a combination of factors – not least, the war in Ukraine, which has exposed many countries' reliance on Russian energy supplies. This is having a knock-on effect on manufacturers, many of whom are facing business-critical decisions over energy costs.

As a result, it has never been more important for business leaders to understand their energy consumption. *Manufacturing Management*'s latest energy survey, in partnership with Inenco, has found that UK manufacturing leaders are keen to make a difference. Awareness of their business' carbon footprint has never been higher and there is a real appetite to cut energy usage.

However, there is also a significant amount of confusion around how to achieve this, with the majority uncertain as to whether they will even be able to meet the sustainability targets they have set themselves.

From a government perspective, the UK Energy Strategy, announced by the Prime Minister in April, promised new North Sea offshore gas projects to reduce the UK's need for imported gas supplies. While this might provide some needed security for large gas users in term of price this does not solve the problem of becoming independent from gas as part of the long-term push towards Net Zero.

Chris Beck
Editor – Manufacturing Management

"It has never been more important to understand energy consumption"

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Shocks ahead

***Manufacturing Management*'s latest survey, in association with energy and sustainability consultancy Inenco, has uncovered an industry keen to reduce their carbon footprint but largely unsure about how to make the necessary steps.**

Our research of industry leaders found that exactly half of respondents were aware of their organisation's carbon footprint, while 37.5% admitted to having no clear idea at all. It's this minority, warns Lorcan Anglin, Inenco's head of client solutions, that could potentially be in for a nasty shock further down the line.

"It's a cliché, but if you fail to plan, you plan to fail," he says. "Many companies are finding that their customers are knocking on their doors and wanting to know what their carbon footprint is and asking to see their their Streamlined Energy & Carbon Report (SECR), which is a piece of mandatory compliance for 'medium to large businesses'; and if those companies can't produce it, they'll lose customers."

Worryingly, it's smaller companies who are most at risk: while those that employ more than 250 people are required by law to submit an SECR report, smaller ones don't have the 'stick' of that initiative. Added to that is the fact that these organisations often don't have the internal resource and expertise to be able to track carbon emissions and it's no surprise that many companies do not track their carbon footprint.

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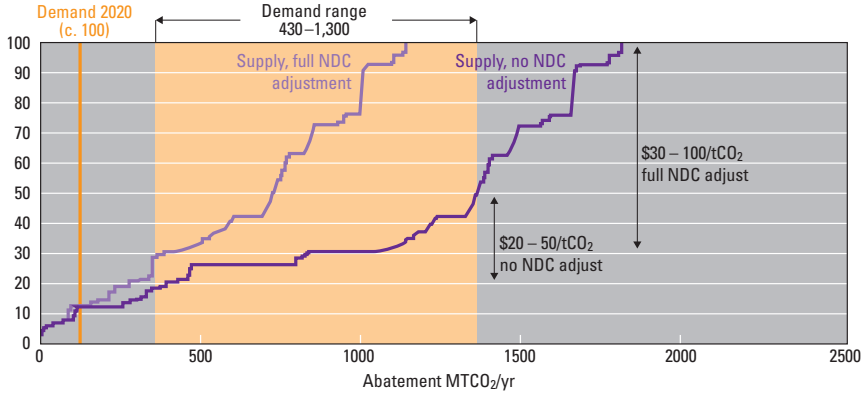
Offsetting risks

The survey also revealed a growing understanding of the importance of a formal energy/carbon reduction strategy, with half of respondents confirming they had one in place. However, for a significant minority (38%) of these, that strategy involved a significant amount of carbon offsetting.

David Oliver, a senior energy consultant at Inenco, says that this should be a last resort, and can't form the basis of a long-term sustainability plan. "The best course of action is to do everything you possibly can, and then use [carbon offsetting] to get rid of any residual carbon," he says. "There are a lot of companies out there that are setting targets for 2030 or 2035, and the risk is that as we get closer to that deadline, they're going to have to buy their way out of the fact that they've not hit all their zero-carbon target by buying carbon offsets.

"At the moment, there's more supply than demand for carbon offsets, so they're relatively cheap. However, as demand increases, we expect them to become more expensive and complex. Anyone who's hoping to buy their way out by using offsetting may find the bill to be higher than they anticipated."

Global voluntary carbon credit price projections – average over period 2020-2050 ($/tCO$_2$, 2020 prices)



UCL and Trove research

Note: "Nationally Determined Contribution (NDC) adjustment" refers to the scenario where governments take responsibility for reducing emissions in their Paris commitments, so only higher cost abatement options are available to the voluntary market.

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Over ambition

Perhaps the most eye-opening finding from the survey is that, while just under half (44%) of respondents have a short- to medium-term carbon reduction strategy in place, 57% of those don't realistically expect to meet the targets that they have set.

The reasons for this could be an over-ambitious board setting targets that can never be achieved, or the way the strategy is formulated in the first place, especially with high gas users.

"Electricity decarbonisation is being supported by the government," says Oliver. "Whether you're getting electricity from the grid or generating your own, getting access to green electricity is and will remain relatively easy. With gas, on the other hand, there is no real low-carbon equivalent. If you have a process that requires gas, such as for high-temperature processes, you may find it hard to know how to prepare for that in a net zero strategy. You have to start looking at whether there's alternatives – could you switch to electricity, for example?"

One way of keeping your targets realistic and achievable, explains Anglin, is to put in some interim targeting as part of a longer-term ambition.

"Everyone has the same goal: to get to Net Zero," he says. "The difficulty is knowing how to get there. Instead of looking at your goal as a big challenge in 15- or 20-years' time, break it down into smaller, shorter-term steps. You might be taking the wrong actions to reach net zero and you cannot take corrective action without interim checks. Don't set targets too far ahead."

This also increases accountability, says Oliver. Board members setting targets for 2050 are "likely to be retired or dead by then. Set a target for 2030 and suddenly people think 'hey, I'm likely to be around for that and I want to make sure I do my bit."

Having realistic targets and regular benchmarking against them also helps to engender a sense of importance amongst the rest of the company, making a change even more achievable.

"Break Net Zero down into small, short-term steps to ensure you keep on the right path."

Who's calling the shots?

While manufacturers are largely unified by their understanding of having an energy strategy in place, they are largely split by what drives their future. Around a third (31%) of respondents say that their strategy is dictated by the board, with a further 13% saying the company's staff influence decisions.

However, a significant number also say their strategies are driven by external factors, with 13% citing their suppliers and around a fifth (19%) saying their customers.

"Ultimately, it doesn't matter why you're looking to reduce carbon, it just matters that you are," says Anglin. "That said, it's slightly concerning that about two-thirds of the respondents don't say the board is their biggest driver. In what world is a board not aware of their company's carbon footprint or energy consumption and looking to improve it? Manufacturing is such an energy-intensive industry that all companies should be focusing on it as a matter of urgency."

This pressure will only intensify as and when competitors begin to reap the rewards of their strategies. This could be in terms of reduced energy use, or, says Oliver, by future-proofing their products.

"If you're a company that makes disposable plastic items, you should be aware you've got a problem looming because demand for that sort of product won't be around for much longer," he says. "Having a focus on business resilience is vital and should be something every board should be thinking about."

This fact may not be as well-regarded as Oliver hopes. Our survey has revealed that the vast majority (81%) are confident that demand for their products will remain stable, even as customer demand changes towards more sustainable products.

"Sustainability isn't just about understanding your carbon emissions, it's about understanding the behaviours of your customers and what they're going to demand from you."

"Having a focus on business resilience is vital ... every board should be thinking about it"

A long-term ambition

One thing our survey agrees on is that the road towards net zero is a long one. Just 13% of respondents expect to achieve Net Zero within five years, with almost two-thirds (63%) expecting it to take at least 15 years.

By then, the energy landscape in the UK will be significantly different, with some predicting hydrogen to play a large role in our power supply. Around a third of our respondents (31%) are confident that hydrogen would be a viable alternative to their energy needs.

Don't be so sure, though, warns Oliver. "A lot of people are overestimating the role hydrogen can play," he says. "Too many people think it will be the saviour for sustainable energy – like one day there'll just be a hydrogen power supply to tap into. However, if you look at the government's hydrogen strategy, their ambition is for 84 terawatt hours of hydrogen by 2030. For comparison, the UK's gas consumption in 2020 was 810 terawatt hours, so we're looking at just over 10% of overall demand. That's not even considering the engineering challenge of converting the entire grid to hydrogen."

Whether UK manufacturing's net zero journey involves hydrogen or not, it's apparent that the majority are now well on the road to a more sustainable future. Those that aren't, will need to make a significant change soon or potentially face an existential threat.

"Too many people think hydrogen will be the saviour for sustainable energy."

The journey to sustainability and carbon Net Zero

The world around us is changing. People's priorities are shifting. We believe that environmental sustainability will increasingly be at the heart of delivering true business success. It will play a big part in determining competitive advantage and ensuring that businesses that adapt to changing stakeholder priorities, will continue to thrive. Our focus is on helping our clients achieve better business but in a greener world.

We do this by helping our customers make the right procurement decisions, better manage the complex process of utility billing, providing data and insight that improves operational and financial performance, and expert consultancy that optimises consumption. All this is enabled by the right systems and processes to manage data at scale, and the insight provided by a team of over 300 experts.

Helping leading organisations for over 50 years

Inenco has over 50 years of consultancy experience working in energy and utilities management; responding to the changing needs of our customers. This gives us the expertise and insight to help successfully control costs, improve margins, achieve regulatory compliance, and protect operational resilience. Our customers include leading organisations across sectors from property, manufacturing, retail, and logistics. We also support the delivery of public sector services with a particular focus on health, social housing, and education.

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We are helping our customers to set and implement clear plans that chart a path to addressing their environmental sustainability challenges, meeting the global challenge of global warming, and achieving a carbon Net Zero future. For our own part, Inenco is committed to achieving true carbon Net Zero status by 2035. We have reduced our carbon footprint by 71% in the last year and offset over 500 tonnes of carbon dioxide emissions by supporting schemes that acquire efficient cooking stoves in Malawi and the prevention of deforestation in the Amazon Rainforest. We are also committed to delivering social value activity that supports some of the most socially and economically challenged communities in the country.

Turn sustainability into a competitive advantage.
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