

THIRSTY WORK

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How gaining certification to ISO 50001 helped Costa Coffee significantly reduce its energy consumption



Effective energy management isn't just good business practice – it's now becoming a fundamental requirement for all organisations. Costa Coffee was one of the first in the food industry to gain certification to the international standard for energy management systems, ISO 50001, allowing the company to efficiently manage its operations.

Transitioning to the standard helped Costa meet increased product demand using less energy, as well as further demonstrating the coffee chain's commitment to quality. Costa's Energy and Environmental Manager, Oliver Rosevear, tells *QW* why certification was such a pivotal move.

Why was it important to gain ISO 50001 certification?

Oliver: Our roastery in Lambeth is a fundamental part of Costa, producing 10,000 tonnes of coffee every year for our UK and international business. In the past few years we've seen an exponential increase in demand for our product and needed to ensure that during high peaks we had an extra supply of electricity to meet consumer need. But there was a problem – London's electricity network was limited and there wasn't any additional capacity available. If we couldn't achieve an energy reduction soon it would mean a significant and costly investment in the structure of the

grid in order for us to get the increased capacity. Our situation was clear – we had to make sure we could retain our operations while using less energy.

ISO 50001 felt like the right standard to work towards because it had a structured programme that could help us achieve a significant reduction. It also tied into our overall corporate social responsibility (CSR) strategy because, before gaining certification, we had made a commitment to reduce our carbon emissions relating to energy, electricity and gas by 25% in 2017.

How did you start the process of transitioning?

We've been roasting coffee for more than 40 years and have always roasted it in a certain way to achieve the quality and taste we're known for. However, our situation raised the question of how we could deliver the same great product using less energy.

We conducted a gap analysis that revealed areas of the business that needed to be improved and identified our key energy drivers, such as the

roasting and packaging processes, and the opportunities for energy reductions through them. NQA were good at helping us get underneath the skin of the business to understand what's feasible. The roastery encompasses a huge amount of equipment and our processes and people drive a lot of it.

It was clear we had to encourage our people to practise energy-efficient behaviour and make them aware of the impact they could have. We presented our findings to the team

to provide absolute clarity on the impact certification was going to have. Challenging people's perceptions and existing ways of working were going to be a massive part of our transition to certification. It was also a chance to think about how we might deliver processes in different ways.

As a certified ISO 50001 and ISO 14001 auditor I was more than aware of what we were undertaking. I made sure our teams had the skills they needed to deliver our plans by



up-skilling internally and providing additional opportunities for development (such as more specific training), rather than bringing in new people.

How did you reduce the amount of energy in the manufacturing process?

We made lots of little changes, such as the replacement of equipment with more energy-efficient alternatives, which made a big difference. For example, instead of trying to find thousand of pounds to replace all the lights in the roastery right away, we changed each of the lights to energy-efficient LEDs as they reached the end of their life. We also upgraded things such as the burners and heat insulators to make them more efficient.

We're now using coffee machines that recognise trade volumes, switching on and off and to higher and lower levels when required. The problem with coffee machines is that you have them switched on 99% of the time, otherwise the water doesn't flow properly and they 'caulk up' – they become blocked with limescale. We needed our machines to be on but not at such a high level. Now they run at a lower level using minimal energy, while still producing coffee to the same standard.

How have you benefited from ISO 50001 certification?

It has helped us mitigate the costs of utilities and equipment upgrades, reducing the cost of energy relative to production by 32% – exceeding our target for 2017 by 7%, two years early. It has also helped us

in those situations where we have wanted to go to tender on certain contracts that have an insistence on companies being able to show clear CSR policies. Now we're able to say that an independent, certified body verifies our policies.

How do you help stakeholders understand the significance of certification?

I think the challenge for ISO is that, outside of those who do quality management regularly, most don't really know what this standard means. However, when you go to the board or stakeholders and say, "We've saved 32% on the cost of energy in production", they get that. We had to make certification real for all our stakeholders by creating another level of understanding and I think that's the challenge facing a lot of organisations. As a brand you have to explain what certification means, the reasons you've undertaken it and what the results are. For us, it has reduced our energy costs while significantly increasing production on-site.

How do you plan to cut your environmental impact even further in the future?

Our group target assesses the business across the board and helps us set future goals to work towards. Costa has more than 3,000 stores in 31 countries, so we have to analyse the entire process and look at every operation in detail. We will continue to innovate to save energy, waste and water across the board – not

only in the roastery but also in our stores throughout the UK – because it's the right thing for a responsible, successful business to do.

In terms of the roastery, we've been looking at what the volumes are going to be like in three and five years time and as a result, we've released new 2020 targets where we aim to achieve a further 15% reduction in energy waste.

We're also working with some of our key suppliers to help them understand how they're impacting the environment and how we can help them to help us limit our impact. Plus, we're currently transitioning to the environmental management system standard, ISO 14001, across our Costa Express business. This is because we've recognised the benefit ISO systems have in identifying opportunities to reduce our impact as a business on the environment.

We also plan to build a second purpose-built roastery in 2017 to meet our future capacity needs. The site is being designed with energy-efficiency in mind and will meet the highest standards of sustainable construction.

What advice would you give to other organisations working towards ISO 50001?

If you want to look at your operation in a structured way and deliver savings effectively then ISO 50001 will allow you to do that. Just don't rush into things. Plan it carefully and make sure the idea is ingrained into the

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wider team because that is where the opportunities lie. An issue we had with hessian sacks is a perfect example of where the whole Costa Coffee business came together to solve a problem.

Hessian sacks are the bags our coffee beans come in and we needed to find a more environmentally friendly way to dispose of them instead of sending them down the waste lines. Our team told us that the underlying of carpet is made out of hessian.

We contacted some carpet manufacturers in Blackburn to see if they could use our bags in some capacity. Now, when we're done with them, they are weaving them into the underlays of carpets that are used in Premier Inn hotels.

ISO 50001 has really helped us get into the mindset of thinking about waste reduction in all aspects of the business. ☕



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NQA's Energy and Environment Sector Manager, Martin Hockaday, explains how NQA helped Costa achieve certification

"Costa's dramatic growth meant it would soon outgrow the capacity of the local electricity network and it became clear that significant energy savings were required. We worked out that implementing an energy management system and having it certified to ISO 50001 would be the best way for Costa to manage this achievement.



"However, this was just the first step in the process and Costa is now firmly on the path of continuous improvement in energy performance, aided by the provision of our annual surveillance audits. NQA always strives to provide a value-added auditing and certification service, where we help clients to enhance their management systems through the identification of opportunities for improvement, as well as identifying nonconformities. As such, Costa can be reassured that it is getting the most out of its energy management system and that it will continue to be an invaluable tool for improvement in energy performance."

"NQA initially conducted a Stage 1 audit, reviewing Costa's management system, to ensure it had covered all of the requirements of the ISO 50001 standard. This was followed by a Stage 2 audit, where the effectiveness of the energy management system was tested and confirmed. Once we had confirmed Costa had implemented a robust and effective energy management system, we were delighted to award it with ISO 50001 certification – an accomplishment that the Costa team should feel very proud of.