

# Enhance environmental performance and business agility to ensure a sustainable future

Powering profitability for food and drink manufacturers



33%

The percentage of international consumers who now choose to buy from brands that they believe are doing environmental good<sup>1</sup>

# Why sustainability is now an imperative

Changing consumer attitudes, tighter environmental regulations and increased awareness among employees, shareholders and investors have all made demonstrating a commitment to sustainability increasingly vital for food and drink manufacturers. At the same time, having the agility to respond quickly to changing consumer preferences and new competitors remains a priority.

All of which makes recent advances in energy technologies particularly relevant. These advances provide food and drink manufacturers with timely opportunities to enhance their brand reputation by reducing their carbon footprint, while also achieving greater flexibility.

We believe it's critical for food and drink manufacturers to implement sustainable energy strategies that increase their appeal to environmentally conscious consumers and enable them to strengthen their long-term future.

## Commitment pressures

**Pressure from consumers, regulators, employees and shareholders, alongside the emergence of innovative start-ups promoting their green credentials, has led to many food and drink manufacturers making a clear commitment to improving their environmental performance.**

Kellogg Company, for example, has committed to a 15% reduction in emissions by 2020 from a 2015 base year. The company has also published a long-term target of a 65% absolute reduction in emissions by 2050 from a 2015 base year, and a 50% reduction in absolute value chain emissions by 2050 from a 2015 base year.<sup>2</sup>

Regulation is also forcing the pace in carbon footprint reductions. In the UK, organisations with more than 250 employees must carry out regular energy audits – covering buildings, processes and transport – as part of the government's Energy Savings Opportunity Scheme (ESOS).

Changing consumer preferences are influencing product lines as well as sustainability profiles. The rapidly growing popularity of 'natural' and 'free from' ranges and the increasing demand for healthier options are putting food and drink manufacturers under pressure to innovate. The two trends having the biggest impact on growing food and drink sales in 2017 were healthy/nutritious foods and 'free from' ranges.<sup>3</sup> In the US, 37% of shoppers said they bought foods and beverages billed as 'natural' in 2018 – up from 31% in 2017.<sup>4</sup>

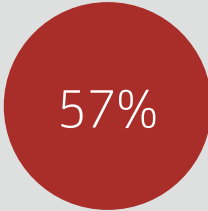
With 89% of UK food and drink manufacturers reporting active involvement in new product development,<sup>5</sup> the capex available to invest in improving green credentials is limited.

But new energy technologies and approaches to managing energy provide food and drink manufacturers with major opportunities for enhancing brand reputation and increasing market agility.



15%

The percentage reduction in emissions by 2020 from a 2015 base committed to by Kellogg Company<sup>6</sup>



57%

The percentage of US food and drink executives who say that their companies will introduce new products to grow sales in the next 12 months<sup>7</sup>



89%

The percentage of UK food and drink manufacturers who report being actively involved in new product development<sup>8</sup>

# Taking advantage of low-carbon technologies

**The demands of refrigeration, heating, air compressors and other energy-intensive equipment used in the production process mean that most food and drink manufacturers are high energy users. The sector is the fourth highest industrial energy user in the UK.<sup>9</sup> Its carbon footprint is significant.**

Consumers' increasing environmental concerns make it vital for food and drink manufacturers to demonstrate their commitment to energy sustainability. In research by Centrica Business Solutions, 52% of food and drink manufacturer respondents said that the link between their sustainable energy use and their brand image was very important.<sup>10</sup>

To ensure a sustainable future, food and drink manufacturers need to take advantage of more flexible, low-carbon technologies. By doing so, they can simultaneously strengthen environmental performance and reduce costs, while also improving their ability to respond to changing market requirements.

## **Saving 1.7k tonnes of CO<sub>2</sub> and eliminating landfill waste**

When a UK pet food manufacturer wanted to become a sustainable energy producer, we installed a CHP plant, which led to more natural in-house energy sources such as natural gas. Today, zero waste from the company reaches landfill, and any non-recyclable waste goes to waste transfer stations. In one year, the business cut carbon output by 1,726 tonnes of CO<sub>2</sub> – the equivalent of taking 575 cars off the road each year.

**Renewable generation technologies**, including solar, enable unused space (such as roofs) to be used to reduce both energy costs and carbon footprint.

**On-site energy co-generation technologies** – including combined heat and power (CHP) and trigeneration (CHP integrated with absorption chillers) – are another high-potential option for food and drink manufacturers with mixed energy load profiles.

For example, one UK dairy that processes 35 million litres of milk per year is now using a 190kWe CHP biogas unit to help generate 75% of the site's energy via an anaerobic digestion system. The dairy is aiming to reduce CO<sub>2</sub> emissions by 1,200 tonnes per year.

**Implementing low-energy LED lighting** can also lower carbon emissions, being between 50–90% more efficient and lasting up to 50 times longer than traditional light sources.<sup>11</sup>

## Overcoming the barriers to take-up

Frustratingly, many food and drink manufacturers feel unable to take advantage of these new energy technologies because of capex constraints, lack of expertise or resource gaps. But by working with the right energy partners, all of these barriers can be overcome. Flexible funding models and innovative commercial models mean that it is now often possible to deploy new, low-carbon technologies with zero capital investment.

Taking advantage of managed service options from suppliers like Centrica Business Solutions reduces reliance on in-house operational teams, allowing food and drink manufacturers to focus on keeping production lines running smoothly.

For example, we equipped a large bakery with a CHP unit that uses waste gas and water to power its new European plant. The company now saves 1,084 tonnes of carbon emissions per year. Having a 10 year maintenance contract ensures that the solution continues to work at the optimum level, without being reliant on internal resources.

Fully realising all the benefits of sustainability initiatives means having the systems and processes in place to easily report on the progress being made. Environmental reporting solutions enable carbon footprint reductions to be clearly demonstrated to customers, regulators, employees and shareholders. Of the world's 250 largest corporations, 92% now report on their sustainability performance.<sup>12</sup>

## 52%

The percentage of food and drink manufacturer respondents who said that the link between their sustainable energy use and their brand image was very important<sup>13</sup>

## 53%

The percentage of food and drink manufacturer respondents who said that becoming a low-carbon organisation was very important<sup>14</sup>

## 50–90%

The percentage increase in efficiency of low-energy LED lighting compared to traditional light sources<sup>15</sup>

<sup>1</sup> Unilever 2017

<sup>2</sup> Economic Contribution of the Food and Beverage Industry, CED, 2017

<sup>3</sup> 2017 Food & Beverage Industry Study Results Report, Mazars, 2017

<sup>4</sup> Food & Health Survey, International Food Information Council Foundation, 2018

<sup>5</sup> Economic Contribution and Growth Opportunities Report, Food and Drink Federation, 2017

<sup>6</sup> Economic Contribution of the Food and Beverage Industry, CED, 2017

<sup>7</sup> Economic Contribution and Growth Opportunities Report, Food and Drink Federation, 2017

<sup>8</sup> Economic Contribution and Growth Opportunities Report, Food and Drink Federation, 2017

<sup>9</sup> Food and Drink Processing Report, Carbon Trust, 2012

<sup>10</sup> Energy Advantage Research, Centrica Business Solutions. Statistics based on a six country survey of more than 1,000 energy decision-makers in large organisations

<sup>11</sup> Centrica Business Solutions: <https://www.centricabusinesssolutions.com/our-solutions/products/commercial-led-lighting>

<sup>12</sup> GRI and Sustainability Reporting, GRI

<sup>13</sup> Energy Advantage Research, Centrica Business Solutions. Statistics based on a six country survey of more than 1,000 energy decision-makers in large organisations

<sup>14</sup> Energy Advantage Research, Centrica Business Solutions. Statistics based on a six country survey of more than 1,000 energy decision-makers in large organisations

<sup>15</sup> The Carbon Trust



1k+  
TONNES

We helped a large UK bakery save over 1k tonnes of carbon emissions and £400k per year, by installing a 1MWe CHP unit.

## Your priorities

Our experience of working with food and drink manufacturers has highlighted the energy strategies that we believe should be prioritised to build a more sustainable future:

- **Implement a sustainable energy strategy** that reinforces brand value and meets regulatory requirements.
- **Audit existing facilities** to identify inefficiencies in areas such as refrigeration, air compression, heating and lighting.
- **Reduce carbon emissions** by implementing low-carbon, on-site generation technologies and energy-efficiency solutions.
- **Improve agility** by taking advantage of new approaches to managing and funding energy.

## Our solutions

Our work with leading food and drink manufacturers means we are ideally placed to improve sustainability through our innovative, end-to-end energy solutions:

- **Energy insight and analytics solutions** that identify opportunities to reduce energy consumption and lower carbon emissions.
- **Advice and technology expertise** that enables the delivery of a sustainable energy strategy.
- **Renewable, low-carbon technologies** such as solar and CHP, that reduce emissions and generate on-site energy.
- **Flexible funding models** that remove the barriers to deploying new, lower-carbon technologies.
- **Environmental reporting** that demonstrates the results of sustainability programmes to customers, regulators, employees and shareholders.

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