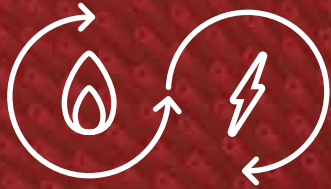


# How to shrink the carbon footprint of your production line without sacrificing efficiency

Perspectives series  
September 2017

Reducing energy will cut carbon and that has a number



# Food manufacturers are under pressure from all sides



## Retailers

The price war being played out across the major retailers is forcing more and more efficiencies down the supply chain. Supermarkets are also demanding reductions in environmental impacts.



## Resources

All businesses are concerned about rising energy prices and dwindling resources. All are striving to do more with less.



## Regulators

Many businesses now need to complete an energy audit by law and the EU has strict targets for energy efficiency improvements.



## Investors

Whether it's carbon intensity or resource scarcity, investors now place increasing importance on sustainability when assessing financial risk.

## Caught in the middle

Caught in the middle of all this is you, the Energy Manager. There are two options.

01

### Struggle along

The bills will keep rising and the regulatory drums will keep beating.

02

### Get smart and streamline

Do your job well and you can help the company to not only reduce its carbon footprint, but save thousands of dollars too.

## Carbon costs

**Boilers for heating, chillers for cooling and electricity for production line add up to vast amounts of energy (and money), resulting in considerable greenhouse gas emissions.**

This means food and drink manufacturers are significant carbon emitters.

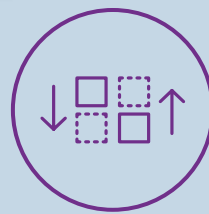
Across the EU, the sector directly accounts for 1.5% of the EU's greenhouse gas emissions. In the UK, food and drink firms are directly responsible for 13 million tons of greenhouse gases.

At least a third of these emissions could be avoided if businesses improved energy efficiency.



## Business needs

Your business will need electricity as well as power for heating and cooling.



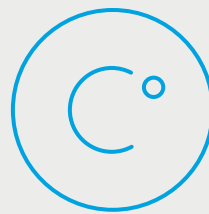
Heating, refrigeration and other energy costs could be cut by up to 40% through a combination of simple energy saving measures and replacing old equipment.

## Wasting your energy

Some of the first steps in better energy management are simple.

**They include checking for leaks in refrigeration systems, controlled lighting and switching off motors when they are not required.**

It is likely that a large chunk of wasted energy occurs at the point of generation. Centralized electric power plants produce lots of electricity but a major by-product is heat.



What if you could generate electricity and make use of the waste heat produced?

## Combined heat and power

CHP – or cogeneration – moves the generation of energy to your site and allows you to capture the ‘wasted’ heat and use it.

**Using less energy from traditional fossil fuels leads to less carbon emissions, meaning that your business is prepared for stricter carbon regulations going forward.**

The overall aim is not to waste anything – including capital. Feasibility studies are therefore essential.

CHP units and systems vary in size and are selected to meet the energy needs of the site. Small-scale systems are typically sized to provide between 25kW and 2MW of continuous electrical output.

There are three basic elements to a CHP system:

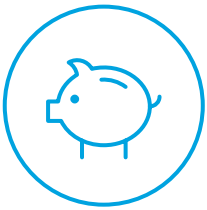
1. The prime mover, which provides the mechanical power
2. Electrical generator
3. Heat recovery unit



The installation of CHP need not involve considerable up-front investment.

## Business benefits

Cutting carbon isn't a nice to have – it's a business priority. Cut energy and you cut carbon. Cut carbon and you can...



Save money on energy bills and shelter yourself from rising costs.



Limit your environmental impact, which can provide reputational benefits.



Prepare for increasingly strict energy efficiency and carbon reduction regulations.

CHP can help cut carbon and make your business both resilient and more competitive in the face of external pressures from regulators, retailers and resources.





To learn more about energy management solutions and corporate sustainability, visit [centricbusinesssolutions.com/us](https://centricbusinesssolutions.com/us)

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