



JOURNEY TO  
**NET ZERO**

BUILD YOUR ROADMAP TO  
A SUSTAINABLE FUTURE

presents...

# How to become more sustainable: A guide for SMEs

The net zero transition is here, and every business needs to take part

**66%**

The UK needs to cut its emissions by around two thirds this decade

**70%**

7 in 10 British businesses plan to introduce net zero emissions goals in the near future

**75%**

Three quarters of the world's biggest companies expect to deselect suppliers based on environmental performance

# Introduction

In this booklet, we will be explaining what your business can do to become more sustainable and providing resources to help you make your business as green and resource-efficient as possible.

## What this booklet will tell you:

- **What is Net Zero?**
- **Why does it matter for you?**
- **The net zero transition and what SMEs can do now**
- **Additional resources and where to seek help and assistance**



## **Net Zero: What it is and why it matters to you**

**Net zero is when the greenhouse gases we emit are reduced to the point where they can be balanced out by the greenhouse gases we remove from the atmosphere. In other words, it means no negative impact on the climate overall.**

**Climate scientists like to use the metaphor of a bath – if you pour in water faster than it empties through the plughole, the bath will fill up and eventually overflow. But if you balance the amount you put in with the amount draining away, by slowing down the tap and/or increasing the size of the plughole, then the water in the bath will remain level.**



Net zero means reducing greenhouse gas emissions to as close to zero as possible, to the point where they can be balanced out by removing greenhouse gases from the atmosphere through carbon offsetting or carbon capture. It differs from ‘zero carbon’, which means no emissions are produced at all.

Net zero is often used interchangeably with other terms such as carbon neutral or climate neutral. Like these terms, net zero targets are difficult to compare like-for-like because different activities and greenhouse gases may be included or excluded depending on the measurer. For example, the UK’s 2050 net zero target covers all greenhouse gases, but it does not include emissions from the goods and services we import.

The term ‘net zero carbon’ is sometimes used synonymously with ‘carbon neutral’ and typically focuses just on carbon emissions from energy use.



## What it means to the UK

The UK became the first major country to set a net zero target of 2050 in 2019. Achieving this will require a complete transformation in almost all aspects of society. We will need to reduce emissions to as close to zero as possible by being far more efficient and intelligent in how we generate and use energy, how we consume materials and other resources, how we transport ourselves and our goods, and how we manage our waste.

We will also need to increase the amount of CO<sub>2</sub> we remove from the atmosphere by changing the way we use land – for example by planting trees and restoring nature – and by developing new technologies that capture and store carbon from the air.

Much of this will be driven by national policy. The forthcoming ban on the sale of petrol and diesel vehicles is just one example of the sort of major government intervention we can expect over the coming years.

## What it means to you

Ultimately, achieving much of what is required for net zero will fall on the shoulders of businesses. Urged on by consumers, shareholders, climate-related legislation and the risks of climate change itself, many of the world's largest companies have already drawn up their own net zero plans. Often, these include targets far in advance of 2050.

The number of corporate net zero commitments have tripled over the last year, in what has been coined the 'Race to Zero'. Companies with combined revenue of over £8.5 trillion have formal net zero targets in place.

These net zero commitments will have a profound impact on supply chains. A 2018 survey by HSBC found that nearly a third of companies around the world planned to make their suppliers more sustainable in the immediate future. In 2020, the number of large-scale buyers asking suppliers for environmental data increased by 24 per cent.

**Claire Scott, is part of GC Business Growth Hub's Sustainability and Net Zero team, has noticed a growing increase interest in net zero among SMEs as a result:**

**“While the net zero agenda is yet to penetrate into much of the SME community, we are beginning to see progressive businesses get ahead of the game by setting their own net zero targets. Showing leadership now will put companies in a strong position for the future by reducing risk, increasing efficiency and opening the door to new revenue opportunities.”**

# The net zero transition is here, and every business needs to take part

In 2019, the UK became the first major nation to commit to reducing greenhouse gas emissions to net zero.

The transition will fundamentally transform every part of the economy. Some of these changes will be visible, such as renewable energy and electric vehicles, but most will happen behind the scenes in the way organisations operate and manage their relationships.

Businesses of all sizes will face new responsibilities and risks, but also new opportunities to grow and benefit from greener and more efficient ways of working.

Businesses like yours have a vital role to play. SMEs are responsible for nearly half the UK's business-related emissions, and large companies are increasingly focusing on their supply chain to reduce their environmental impact.

## Where to start: Top tips for Big Energy Savings

### Heating and cooling

The longer your heating is on and the higher the thermostat is set, the higher your bills will be. In fact, heating costs go up by around 8 per cent for every 1°C increase.



# What to do next?

**Did you know: Up to 30 per cent of heating costs can be saved by preventing cold air from entering a building**

## Next steps (low cost)

- Ensure draughts, unused doors and flues are sealed up. If you can't keep warehouse doors closed, install PVC strip curtains
- Upgrade old thermostats and relocate them to areas that aren't affected by heating or cooling from radiators, draughts or direct sunlight
- Insulate any heated pipework.

## First steps (zero cost)

- Set office heating at the recommended 19°C, and lower in corridors, storerooms and areas of higher physical activity
- Allocate a member of staff to be responsible for heating controls to make sure they are not tampered with
- Make sure timers are set to the right date and time, especially when the clocks change, and take working hours, weekends and Bank Holidays into account
- Ensure air conditioning is turned off in unoccupied rooms
- Make sure radiators are free from obstructions.

## Myth buster!

**Turning the temperature up high on your thermostat will not warm the room up quicker.**

## Ready to invest

- Circulation and destratification fans in buildings with high ceilings – such as factories and warehouse spaces – are highly effective at spreading heat around the building rather than letting it gather at ceiling level
- Invest in double or secondary glazing in heavily windowed spaces, which can reduce heat loss through windows by up to 50 per cent
- Insulate lofts, cavity walls and roof spaces to retain heat inside the building
- Upgrade your old boiler – a non-condensing boiler with limited controls is significantly less efficient than a modern condensing boiler. Better still, investigate options for heat recovery, heat pumps or radiant heating technologies which heat objects rather than the air.



## Lighting

For many SMEs, lighting is the most energy-intensive part of their operations – it can be responsible for up to 40 per cent of a building's electricity use.

### First steps (zero cost)

- Take a quick survey at the end of the day to identify places where lights are being left on
- Make sure the last person to leave a room knows they have the responsibility to turn the lights off. Create reminders and promotional materials to raise awareness if needed
- Label all switches clearly
- Maximise sunlight from windows and skylights by relocating blocking objects and rearranging office space if required
- Minimise lighting in non-working areas such as corridors by removing surplus bulbs where appropriate.

**Myth buster: Turning lights off and back on again does not use more energy than leaving them on all the time. Always turn lights off – the savings are nearly instant.**

### Next steps (low cost)

- Install timer switches to make sure all lights are turned off outside working hours (these are very low cost and will pay back within a matter of months)
- Install movement sensors in appropriate spaces, such as storerooms, toilets and corridors
- Invest in dimmable lights fitted with daylight sensors where relevant
- Consider refurbishing your office with light reflective paint to maximise light gains
- Install light fittings with reflectors to maximise the direction of light to specified areas.

### Ready to invest

- Upgrading your lighting to LEDs is one of the most cost-effective ways to significantly decrease your energy bill and is something we regularly support businesses with. LEDs can be up to 90 per cent more efficient than older lamps, produce less heat and can increase lighting levels to create a safer and more comfortable working environment.



## Office equipment

It may sound simple, but simple office equipment such as computers, printers and kitchen utilities can become a big energy drain if used poorly.

**Staff should turn their computer monitors off if they are away from their desks for more than 10 minutes, and both computers and monitors are turned off at the end of the day**

### First steps (zero cost)

- Ensure infrequently used printers and photocopiers are only turned on when required and are set to go to sleep after a few minutes of inactivity
- When making a brew, only boil the amount of water that is needed for each use
- Maximise use of space in fridges so that cool air can still circulate, and regularly defrost freezers
- Put a procurement policy in place to ensure the lifetime costs of any new equipment is taken into account when purchasing, rather than just looking at upfront costs.

**Myth buster: Leaving equipment on standby is not a good way to save energy – each little red dot costs around £1 a year for every watt of power used. It all adds up.**



### Time to invest

- When investing new computer equipment, consider switching to laptops rather than PC – laptops use less energy, are more portable and can be hooked up to desktop monitors when required
- If you have several individual printers and photocopiers, consider replacing them with fewer larger units to increase efficiency and reduce idling
- Upgrade fridges and freezers to top energy-rated models.



## **Production equipment**

Manufacturers are the most energy-intensive businesses. Whether its motors and drives, compressed air, ovens or refrigeration units, inefficient equipment is one of the biggest culprits for energy wastage.

### **Ensure all machines are turned off at the end of the day – including fans, pumps and compressors**

#### **First steps (zero cost)**

- Make sure all switches are labelled correctly and staff are trained in the correct procedures for operating machinery so they know what they can turn off
- Establish the optimum setting for each piece of equipment – reducing the speed of a motor by just 20 per cent can half its energy consumption
- Keep all motors clean – dirty equipment runs much hotter than clean equipment and is more likely to fail

### **Do a regular walkaround of your factory to listen for and fix compressed air leaks**

#### **Next steps (low cost)**

- Explore opportunities for automated and interlocked controls so that motors only run when other equipment is switched on, and are isolated when switched off
- Draw cold air from outside into your compressor – dropping air intake temperature will improve efficiency
- Change compressor filters regularly and install automatic drain valves to get rid of condensate in the air lines to reduce air losses.

#### **Time to invest**

- Replace older drives with variable speed drives (VSDs) – even a small speed reduction can lead to substantial energy savings. The same applies to compressors
- Recover heat from compressors by installing a manual valve to duct out warm air – which is otherwise free heat going to waste
- When replacing production equipment, ensure units with the highest possible efficiency are selected. Initial purchase costs may be lower for a less efficient model, but the higher energy consumption will cost you more in the long-term.

## Don't forget to measure

Regardless of what action you take, remember you need to understand your energy consumption first. If you don't have access to half hourly electricity data, take weekly meter reads. That way you can accurately calculate your savings and use it to inform the business case for further improvements. Investing in smart meters or half-hourly metering will allow you to really drill down into the data and better analyse your energy consumption.

**Contact us today to start your Journey to Net Zero: [JTNZ@growthco.uk](mailto:JTNZ@growthco.uk)**

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## **Additional resources**



**[Net Zero: What it is and why it matters to you](#)**

**[Think net zero won't impact you anytime soon? Think again](#)**

**[Greater Manchester's drive to carbon neutral and what it means for you](#)**

**[A beginner's guide to carbon footprinting](#)**

**[A quick-fire guide to 'Scope 3' emissions](#)**

**[An introduction to science-based climate targets](#)**

**[Why sustainable supply chains are essential in the post-coronavirus world](#)**

**[How to be a 'net zero ready' supplier](#)**

**[How to create an environmentally aware workforce](#)**

**[The good, the bad and the ugly: Switching to renewable electricity](#)**

**[Greenwashing: What it is and how to avoid it](#)**

**[Climate Change & Net Zero Jargon Buster](#)**