

Paper Round's pathway to deliver a SustainABLE future



About Paper Round

We are a leading commercial recycling company, operating in London and the South East. Founded in 1988, we bring recycling and waste management solutions to forward-thinking, environmentally aware businesses and other organisations of all sizes. We've consistently been one of the first recycling companies to bring to market new recycling streams, such as coffee grounds, coffee cups and compostables, and innovations such as engagement packages, accurate bin weighing and recycling reports.

Our experience has been over 30 years in the making. Starting life as an environmental project collecting and recycling office paper, we now help over 6,000 businesses across London and the South East to improve their environmental credentials through a range of best-in-class recycling services, data analysis and award-winning engagement.

This year we're taking this even further.



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Introduction

Climate change is one of the greatest threats of our time. The evidence is clear and there is no doubt that emissions of greenhouse gases from human activity are impacting our climate.

In May 2019, the UK Government declared a climate emergency, committing the country to net zero emissions by 2050. We're the first major economy to set legally binding targets and since then, there has been a series of net zero commitments from all sectors.

For businesses, this presents significant and growing risks, but also opportunities to be a green leader.

This white paper investigates the vital role that waste and recycling plays in achieving real carbon reductions for business. It explains how we will deliver this for our clients through our SustainABLE Pathway of 10 key commitments to mitigate climate change.

These commitments mean that we will;

- a) Lower our carbon footprint to net zero by 2030 at the latest, meaning reduced indirect emissions for our customers;
 and.
- b) provide a set of tools and services to help our customers on their own journey to a low carbon future

Climate change is one of the greatest threats of our time.

THE PATHWAY TO A SUSTAINABLE FUTURE

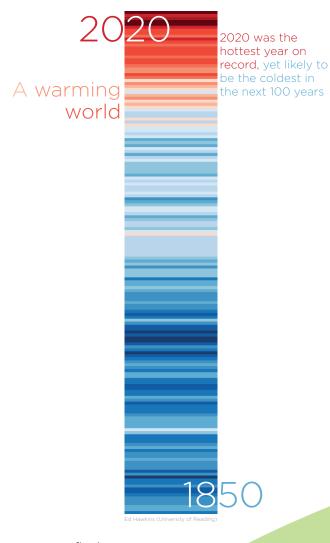
The threat from climate change

The evidence pointing toward catastrophic environmental damage is growing ever clearer. The scientific community is in no doubt that emissions of greenhouse gases resulting from human activity are causing our climate to change. Rising temperatures are increasing the risk and frequency of extreme weather conditions such as drought, wildfires, and flooding; our ice-caps are shrinking, resulting in accelerating sea level rise; and much of our wildlife is heading for extinction.

The International Panel on Climate Change (IPCC) released a warning that:

'without increased and urgent mitigation in the coming years, leading to a sharp decline in greenhouse gas emissions by 2030, global warming will surpass 1.5 degrees. Leading to irreversible loss of the most fragile ecosystems, and crisis after crisis for the most vulnerable people and societies.'

Despite this warning, the world is currently on track for 3 degrees warming if we do not change course.





The time is now.

But it's not too late. Climate research suggests that we can minimise the impact on our future if we limit global warming to below 1.5 degrees and reach at least net zero CO₂ emissions.

The impacts of warming above this figure are far greater and wider reaching.

Net zero by 2050 is what the UK Government has committed to.



What is net zero?

Perhaps surprisingly, there is currently no formally agreed definition of 'net zero', but broadly speaking:

Net zero refers to achieving an overall balance between the amount of greenhouse gases released into the atmosphere and those taken out.

It can be described using an analogy of a bath with a running tap and a drain. To stop the bath overfilling (increasing climate impacts), you should reduce the flow of water (reduce carbon emissions). Then, you should release the same volume of water via the drain (i.e removing carbon from the atmosphere).

Today, emissions (flowing into the bath) are most clearly measured using a standard called the **Greenhouse Gas Protocol** (GHGP) and exact targets for carbon reduction (turning down the taps) are best set using a methodology set out by the **Science Based Target Initiative** (SBTi) (see Insight: measurement).

Removing carbon from the atmosphere (emptying water with the drain) can be achieved by certain (but not all) **Carbon Offset schemes** (see Insight: carbon offsetting).

The details of net zero can be complicated, but the principles are simple. The key message is that above all, we should focus on reducing emissions in the first place.





Insight: Measurement

Measuring carbon emissions and setting targets

All businesses are accustomed to adopting accounting standards to measure financial performance. Standards also apply to measuring emissions. The <u>Greenhouse Gas Protocol</u> is the most widely adopted standard for measuring an organisations' emissions, while the <u>Science Based Target Initiative</u> is the gold standard for setting specific targets.

Greenhouse Gas Protocol (GHGP)

It's natural for an organisation to focus on the carbon emissions they directly create (e.g. from electricity or petrol use) when measuring carbon outputs.

For most organisations, however, the carbon emissions within their **value chain** from external suppliers are normally significantly higher than the emissions they directly control, sometimes 5 times higher. As such, it's important that trusted partners are used.

To cover both direct and indirect emissions the GHGP splits carbon emissions into three groups, commonly referred to as 'scopes' (see fig. 2).

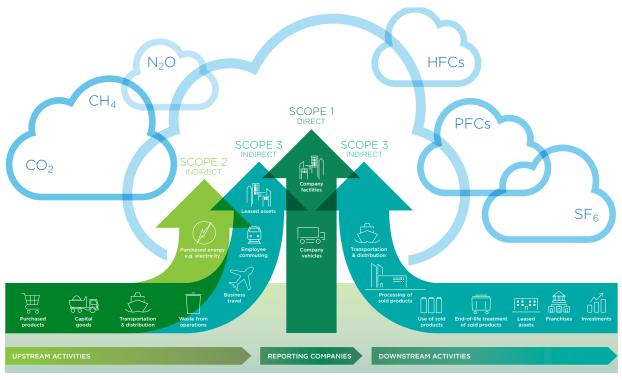
Scope 1 emissions refers to all direct greenhouse gas emissions from a business, for example from burning fuel running a company's own vehicles. Whilst scope 2 refers to indirect emissions from energy use, such as electricity purchased.

Scope 3 emissions are other indirect emissions from their value chain suppliers, including:

- Procured services, such as waste management
- Business travel
- Employee commuting
- Distribution and storage of a company's manufactured products

Science Based Target Initiative (SBTi)

If GHGP is the accounting standard, then SBTi is the approach to set a specific future target and your plans to achieve it by a certain date. Importantly, it is about **absolute emission reductions** and offset schemes cannot be used to achieve the target. It is based on climate science and is seen as a credible pathway to carbon reduction as part of a net zero journey.



Insight: Carbon offsetting

Carbon offsetting: when reduction isn't possible.

After reducing carbon emissions, the next action on the climate action hierarchy (fig 3.) is carbon offsetting, which is where the same amount of carbon produced is avoided or reduced somewhere else

A controversial topic, carbon offsetting schemes have come under scrutiny in recent years over their effectiveness and potential counterproductivity in the fight against the climate crisis.

So, is carbon offsetting the climate silver bullet we've all been waiting for?

In short, no.

The best offset schemes can, however, be an extremely useful tool on a net zero journey, but there is a time and a place for them. This is usually at the end of a net zero journey, after a reduction in carbon emissions has taken place.

It is also vital that a credible carbon offset scheme is used. It should remove carbon from the atmosphere - draining the bath in our analogy and should be certified to ISO 14062:2 and externally validated

ISO 14062:2 provides guidance for quantification, monitoring and reporting of projects intended to remove greenhouse gases. <u>More information.</u>

Used cautiously, we believe that with careful research and choosing a legitimate scheme, they can be useful in a low carbon, net zero journey.

Head over to our blog to read more.

Reduce what you can, offset what you can't.

Climate action hierachy



Opportunities for business

Against the background of a warming planet and rapid policy change, 'going green' is now cited as a key business differentiator and a source of long-term competitive advantage. Let's look at some examples:

- Tesla, the American electric vehicle and clean energy company is now worth more than the sum of the next six global car manufacturers, including: Toyota, Volkswagen & General Motors. It has lower revenues than its competitors today, but is viewed as having a brighter future.
- Research shows up to 70% of consumers are willing to spend more for a product created by a sustainable brand.
- A <u>Harvard Business School study</u> showed that in 80% of cases, companies with elevated socio-environmental standards boasted better stock price performance.
- Surveys find that 65% of people across
 China, Germany, India, the UK and the US
 would choose to work for a firm with a
 strong social and environmental conscience.

In light of data this data, businesses and organisations are looking at what they can do to optimise their environmental strategy.

Key to this is reducing carbon emissions and committing to a net zero target.

Going green is a key business differentiator

The waste sector's role in delivering net zero for business

Although good progress has been made in decarbonising in the waste industry over the past 30 years, with a reduction in emissions by 70% from 1990 levels, there is still more to do.

Waste and recycling is one of the 8 key upstream activities in the Greenhouse Gas Protocol and will play an intrinsic part in the UK's drive to net zero.

We must drive towards a circular economy; re-using and recycling more and burning and landfilling less. We must also electrify our operations using renewable power.

The waste and recycling industry is unique in that recycling enables the circular economy. It removes the need for carbon intensive processes to produce new products. It can therefore have a significant indirect impact on the generation of greenhouse gases. These are known as avoided emissions.

Let's look at some examples:

To illustrate the benefit of avoided emissions, a 2016 <u>Southampton University Study</u> highlighted that 1 tonne of aluminum cans takes 1.1 tonnes of CO₂e to reprocess, but saves 8.1 tonnes of CO₂e by avoiding the production of new aluminum.

Similarly, <u>Zero Waste Scotland</u> research shows that for every tonne of plastic processed there are significantly different carbon **outcomes** possible.

One tonne of plastic incinerated at an energy-from-waste facility releases 1.8 tonnes of CO_2e , whereas recycling plastic avoids nearly 1 tonne of CO_2e , by not creating new virgin materials.

Small changes can produce significantly different outcomes.

Moving to a circular economy model (fig 4.) through implementing real and effective recycling is key in reducing waste emissions and for unlocking avoided carbon benefits.

For waste producers, trying to understand and reduce the carbon impact of their waste emissions is often hard to measure and manage.

Here is where we can help.

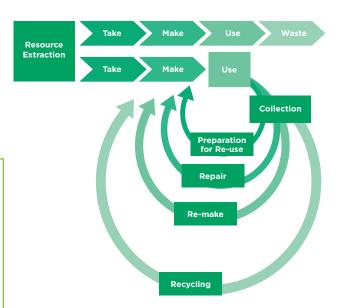


fig. 4

Introducing Paper Round's SustainABLE Pathway

To help our customers on their net zero journey, we have designed a new approach covering all our activities, this is our new SustainABLE Pathway.

This sets out the detailed steps we will implement for us to reach a low carbon, net zero future, and the way we will help our clients achieve their own carbon reduction objectives.

Reducing our impact on the environment has always been at the forefront of our operations. We are committed to sharing our expertise and experience with our clients looking to reduce their operational carbon footprint, and unlocking the avoided emission benefit from recycling.

We do this through our award-winning services, insight and reporting, and engagement programmes.

Our Pathway

To ensure we are fully focused on a net zero future and can provide high-quality evidence of this to our customers, we have set ourselves 10 key commitments to reduce ours and our clients' carbon footprint. Our pathway goes beyond just future commitments, it is the way we will deliver real change and bring net zero to life.

We hope our 10 key commitments will form a catalyst for change within the waste and recycling sector and encourage our customers to develop their own pathways to net zero.



Our commitments

We will:



Commit to be net zero for our scope 1 & 2 emissions by 2030, 20 years ahead of the Paris Agreement deadline



Reduce our emissions through setting Science Based Targets, reducing our scope 1 & 2 emissions in absolute terms by at least 30% by 2030



Use our expertise to determine the best recycling and end-of-life destinations and maintain our zero-to-landfill policy



Innovate and invest in new technologies and equipment to further improve recycling outcomes and avoid the production of higher carbon virgin materials



Decarbonise our infrastructure by electrifying our fleet and continuing to operate clean energy buildings and equipment



Engage with our partners, suppliers, material processors and wider stakeholders to adopt best practice in our value chain



Services

- Existing carbon reduction initiatives
- Lower emission source
 separated collections
- Launch new lower carbon recycling services e a
 - > SustainABLE Box
 - > Sustain ABLE Hub
- SustainABLE Procurement through recycled and circular economy products
- SustainABLE collections option and electric vehicle investment

For our clients we will:



Provide insight using GHGP reporting methodologies, to facilitate clients' net zero journeys and allow them to report or their scope 3 waste emissions



Consult with clients on opportunities to reduce their scope 3 emissions



Bring to market a range of innovative recycling services and circular economy products, optimised for clients wanting to reduce their scope 3 emissions



Provide a credible offset-reduction programme for clients who wish to offset their carbon emissions from both collection and/or end-of-life material processing

Intelligence

- Client carbon reporting
- Net zero waste & recycling option with offset-reduction
- Advise total avoided emissions

Engagement

- Support our clients' net zero objectives
- Promote employee behaviour
 change
- Identify carbon reduction opportunities

Benefits for our customers

Working with us as your trusted partner, our commitments will enable you to:

Report on your scope 3 emissions

- > Through intelligent reporting using a credible GHGP methodology
- > Track our progress on lower year-onyear emissions as we bring to market lower carbon products, electrify our fleet and reach net zero by 2030

Quantify the carbon benefits of recycling

- > Report on avoided carbon emissions from your recycling efforts
- > Promote best practice amongst staff and monitor the impact of changes

Consult on options to reduce your carbon impact

- > With high quality advice on recycling initiatives to reduce your scope 3 emissions
- > Through the provision of lower carbon services and sustainable procurement options



Our first fully electric RCV - marking the start of the electrification of our fleet



Conclusion

Unlike many other business goals, net zero has a finishing line and the consequences of us all not crossing it jeopardises our collective future. Legislation is in place in the UK to reach net zero greenhouse gas emissions by 2050. Whilst the path to net zero is complex and challenging, this should not be a reason to delay action and be ambitious in our objectives.

This is our moment, we must be bold.

Key to this is carbon reduction, which must be front-and-center at every stage.

A sustainable, low carbon future depends on minimising the requirement to make new products from virgin material and instead move to a low carbon circular economy. Recycling is the key enabler for this.

With an innovation record spanning 30 years, our aim is to lead the recycling and sustainability sector in this change and help our clients on their journey.

We hope you'll join us on this pathway towards a low carbon, net zero and SustainABLE future.

'We are the first generation to feel the effect of climate change and the last generation who can do something about it.'

President Obama





