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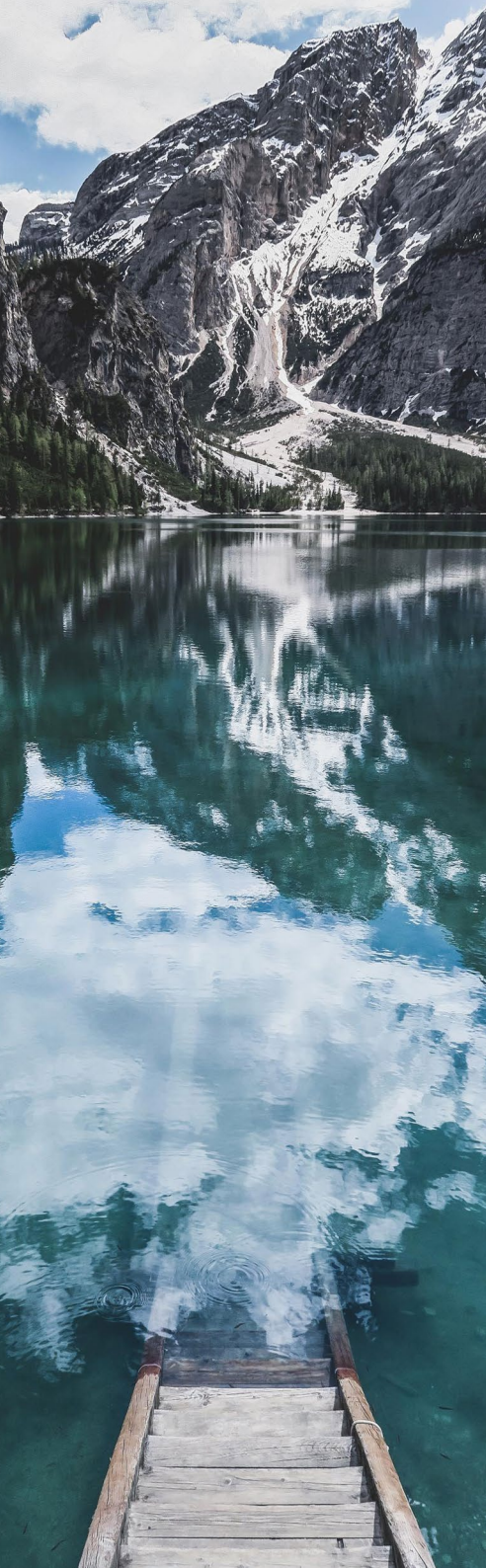
# Countdown to Net Zero

## Becoming a Carbon Neutral Business

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- Understanding carbon neutrality
- Understanding your business
- Developing a strategy
- Setting targets
- Reducing emissions
- Achieving neutrality





# Countdown to net zero.

## Becoming a carbon neutral business.

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## Five

# Understanding carbon neutrality

In October 2018, the Intergovernmental Panel on Climate Change (IPCC) released their [Special Report on Global Warming of 1.5°C](#). The findings made plain the case to limit global warming to 1.5 degrees celcius above pre-industrial levels if we wish to avoid the most catastrophic impacts of manmade climate change.

Through the Paris Agreement, countries have agreed to take action. To date, 184 of the 197 parties to the conference have ratified the agreement. In December 2018, the 24th Conference (COP24) took place in Poland in order to set out the rulebook for implementing the agreement from 2020. In light of this global commitment and the growing pressure to avoid devastating climate change, there is now increasing momentum towards climate neutrality as more states, companies and investors contribute to meet this critical collective target.

The Paris Agreement defines carbon neutrality as a balance between both sources and sinks of carbon. A carbon neutral footprint can, therefore, be achieved when carbon emissions (CO<sub>2</sub>e) are either reduced or offset by natural carbon sinks and/or carbon credits to achieve a net zero sum of carbon.

Our advised approach is to incorporate the following to meet a carbon neutral objective:

**1. Quantitative measures of evaluation,** monitoring and reporting of emissions to

meet the fundamental principals of transparency and credibility.

**2. Qualitative measures of reduction** and sequestrations of carbon to achieve a science-based goal and in alignment with global goals to minimise climate change.

**3. Investments to finance the transition to a carbon neutral world** which might include the acquisition of carbon offset credits and the development of offset projects and/or investing in R&D to reduce or sequester GHG emissions.

184  
COUNTRIES HAVE  
RATIFIED  
THE PARIS  
AGREEMENT





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## Five

# Understanding carbon neutrality Timeline

2014

UNEP announces the world must be carbon neutral by 2050.

2016

The global aviation industry agrees to carbon neutral growth through carbon offsetting (CORSIA).

Jan 2017

Costa Rica sets a carbon neutral goal for 2021.

July 2017

France set their objective for carbon neutrality by 2050.

Nov 2017

25 cities (representing 150m citizens) commit to become emission neutral by 2050 including London, Paris & Barcelona.

April 2018

The UK Government announces a review of its long-term climate targets to reach net zero emissions by 2050.

Oct 2018

The IPCC releases it's special report on the impacts of 1.5°C warning stating that this limit could be exceeded in just 12 years and we need to reach global net zero emissions by 2050 to prevent it.



## Five

# Understanding carbon neutrality

## Why go carbon neutral?

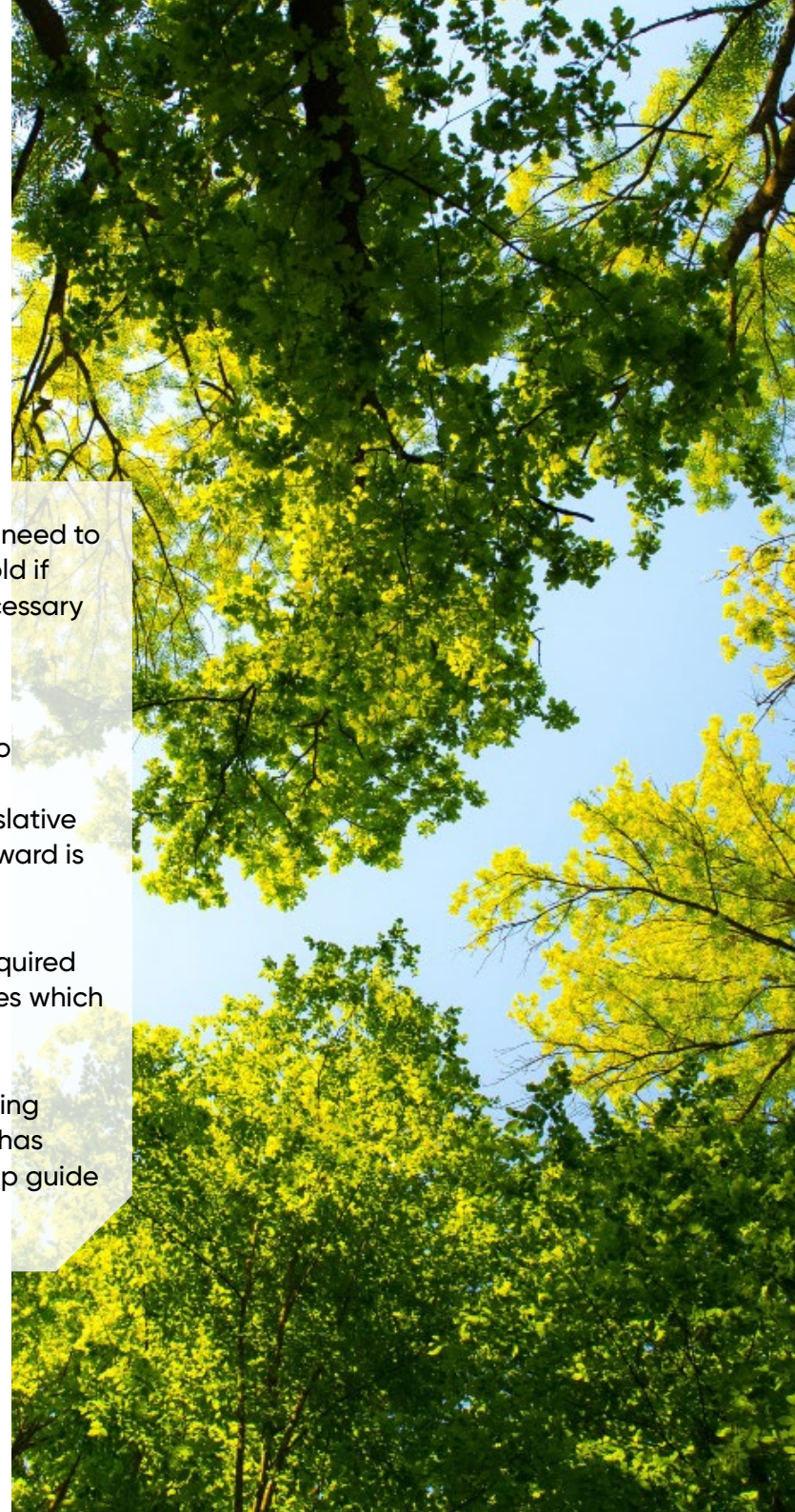
While progress is being made, the [UN Emissions Gap Report 2018](#) declared that nations need to raise their ambitions three-fold to be on track to limit warming to below 2°C, and five-fold if aiming for 1.5°C. This brings to light a glaring gap between the scientific advice and necessary climate action. It is clear we need to step up collectively in our efforts to achieve our commitments and organisations have a pivotal role to play.

Companies are now facing mounting pressure from consumers, shareholders and staff to effectively address climate risk. Businesses that achieve carbon neutral status will find themselves better protected against upcoming shifts to the market and impending legislative changes as governments face increased pressure to step up to the plate. The added reward is reputational and competitive advantage.

Businesses are also demonstrating the important influence they can have driving the required legislative change by leading the way with effective and innovative strategies. Strategies which will contribute to a future-fit economy and the vital task of bridging the gap.

But how do businesses assess and plan for a climate neutral future? We have been helping organisations to measure, reduce and offset their emission for over 13 years. This eBook has been developed to provide a practical approach to carbon neutrality and a step by step guide to achieving it.

**Your countdown to net zero emissions has begun...**





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## Four

# Understanding your business

Gaining a clear outlook on what this commitment means to your organisation is the first priority.

### Measurement and Reporting

You will of course need to know your emissions and calculate your carbon footprint. For those organisations who have not done this before, this will likely be your initial course of action along with the following steps:

- 1** **Define** the scope and boundaries of your data collection and the emissions you need to measure.
- 2** **Gather** the data and establish the best means to do so on an ongoing basis.
- 3** **Use** the results to calculate the total footprint for your baseline year and develop your future data collection plan.
- 4** **Report** the results (present a summary footprint and/or a data map) and set the foundations for the future metrics and reporting.
- 5** **Analyse** your data to identify 'hotspot' areas of high emissions (and unusually high costs) that can inform your next actions.

DEFINE | GATHER | USE | REPORT | ANALYSE

### What to include in a carbon footprint

Carbon footprints capture emissions outputs on an annual basis. Data will need to be gathered from a variety of different sources including travel, logistics and operations in order to gather a full and accurate footprint. Measurements should include 100% of Scope 1 direct and Scope 2 indirect emissions from your own operations, plus all material Scope 3 emissions to be able to achieve climate neutrality.

Scope 3 emissions come from a company's supply chain and are not under the direct control of the reporting company itself. Data collection involves multiple stakeholders and data sources. This makes them significantly more challenging. But Scope 3 emissions are important as they often account for a significant proportion of a company's carbon footprint – sometimes up to 90%. Examples of Scope 3 include business travel, employee commuting or emissions arising from the use of sold products but also upstream activities including raw material and agricultural production.



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## Four

# Understanding your business Stakeholder and competitor assessment

Larger organisations with existing sustainability strategies will likely be ahead on this score. You may have already undertaken a materiality assessment of environmental, social and governance (ESG) issues and understand those most significant to your organisations.

However, it is still important to engage with your stakeholders specifically on carbon neutrality to fully understand business risks and opportunities as a result of adapting to a zero-carbon future. It will provide important insight into priorities and expectations across the value chain as well as wider society.

Usually it is used to inform reporting and communications strategies but will also be valuable to strategic planning, operational management and capital investment decisions moving forward.

A review of competitor behaviour will be useful to understand and anticipate market and investor expectations that affect your specific industry. It will also enable you to benchmark your current and future progress.

### Linking Carbon Neutrality to Your Wider Sustainability Strategy

Carbon neutrality should not be a stand-alone exercise but linked to your wider sustainability outputs. There will be additional benefits from the work you carry out which will feed into your annual sustainability report, strengthen your disclosures against particular frameworks such as the SDGs or CDP, and better enable you to be compliant with [Mandatory Greenhouse Gas Reporting](#) and new aligned disclosure updates such as the recent recommendations of the [Task Force for Climate-related Financial Disclosures](#) (TCFD).

REVIEW  
UNDERSTAND  
ANTICIPATE

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## Three

# Developing a strategy

To succeed in your carbon neutral ambitions, a robust strategy for how you are going to achieve them is vital and will be underpinned by the previous stage. This strategy should take account of the following:

### Governance

Becoming carbon neutral may be an ambitious undertaking for some organisations but for others may be fairly easy and low cost. Regardless, full buy-in and oversight from the very top of the organisation is important. Your objectives and methods for achieving them will need to have full support so this should be gained before setting a strategy in stone.

A governance structure will need to be implemented. Establish who is responsible for each element of the process, this could be with the appointment of champions for each area of focus, operation unit and/or department. A steering committee that can review, direct and drive progress on an ongoing basis will also be important.

### Integration into corporate strategy

A carbon neutral strategy and the methods you choose to achieve it will need to be aligned to the overall business objectives and vice versa. This will be fed by your materiality assessment and the risks, opportunities and priorities identified with all your stakeholders.

Carbon neutrality provides an opportunity for longevity, energy cost savings and competitive differentiation (amongst many other advantages) so provides ample opportunity for integration with your main business objectives.

### A communications strategy

Communicating these objectives correctly can drive engagement across your organisation. Internal communications should be aligned to your teams' priorities and work to empower them to deliver results. Understanding how internal stakeholders feel about climate neutrality and what their priorities are as uncovered in the previous section should shape your approach. You should plan to communicate the results and the benefits that are of most value, e.g. this might be cost savings or helping the environment.

Displaying transparency will be important to your external communications strategy. You might like to think how you wish to communicate your new objective publicly and the value in doing so to the business. For example, if your business objective is to be a market leader, publicly standing out in the crowd with a carbon neutral commitment could have significant value.



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## Two

# Setting a target

To become carbon neutral the targets you set for emissions reduction will undoubtedly be ambitious so must be supported with a base year, timescales and a clear plan for achievability.

You will be aiming for either a reduction in the total amount of carbon emitted (in absolute terms) or in carbon intensity (in relative terms, e.g. carbon emissions per unit output or per £/€/ \$ of turnover). You will likely need to set long term targets in this instance but should also include manageable interim targets.

### Science-based targets

Science-based targets (SBTs) are carbon emission targets that are specifically developed in line with climate science and the level of decarbonisation that is required to limit global temperature increase in line with science.

There are now over 500 companies that have committed to the initiative and it is fast becoming best practice in terms of emission reduction targets. They could, therefore, provide a valuable element to a strategy for carbon neutrality.

Over 160 of these companies have now had their targets officially verified by the Science Based Target Initiative (SBTi). This is driving a momentum among global organisations and beginning to send a clear signal to policymakers that industry is committed to playing its part in decarbonising the economy and assisting in closing that gap.

### Case study

As a leader in digital services, ATOS aims to accelerate progress by uniting people, business and technology. With an annual revenue of \$ 13 billion, the company employs over 100,000 employees in 73 countries, servicing a global client base. With an already pioneering climate strategy, ATOS went one step further and decided to set a science-based target.

EcoAct supported ATOS to define their target to reduce GHG emissions from Scopes 1, 2 & 3 (specifically upstream leased assets and business travel) emissions. The targets set were emissions reductions of 37% by 2021 and 86% by 2050, from a 2012 base-year. The company has also committed to a 26% reduction in its Scope 3 emissions from purchased goods and services, and capital goods by 2021 increasing to 84% by 2050. In October 2017, ATOS became one the first five French companies to have their targets approved by the Science Based Target Initiative (SBTi).



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# One

## Reducing emissions

The next step is to start making the reductions required of your targets.

As well as reducing carbon, these will also typically generate cost savings and other efficiencies. Identifying the cheapest emissions reductions can be done by calculating the marginal cost of cutting carbon across your business activities. The following methods are likely to be of relevance:

### Energy efficiency investments

Here lies a large potential for cost savings. Even small changes to your existing operational processes can have a big impact on your energy usage (e.g. optimising the timings for powering up or down various heating or cooling systems) and by extension, your costs, but investing in better systems and new management processes could see significant returns long term.

The right software for gathering data and monitoring energy usage will be vital to large multi-site businesses to process the volume of data you may have. It will streamline the process of continual analysis of energy consumption and identifying potential areas for increased efficiency. It could also help reduce the burden of reporting.

### Procurement practices

Updating procurement criteria, engaging with your wider stakeholders and addressing the largest emissions sources in the supply chain will be important for those businesses who have a large proportion of Scope 3 emissions.

### Behaviour change

Updating internal policy, incentivising and continually engaging with employees will ensure that emissions reduction is embedded within strategy across the organisation.

### Putting a price on carbon

Costing carbon within your company can lead to reductions in an efficient way. Activities would have an additional 'virtual' cost attached to them according to their carbon efficiency, and individual departments would be responsible for meeting set allowances and therefore incentivised to minimise carbon usage.

### Case study

Microsoft is one of the pioneers of the zero-carbon pathway. The company focuses on increasing operational efficiency at their data centres, by procuring renewable energy equal to 100% of energy consumption and holding themselves responsible with an internal carbon fee.

The carbon neutral strategy is based on company-wide accountability achieved through the global internal carbon fee. This chargeback model puts a price on carbon and makes each business division responsible for the carbon emissions associated with their electricity use and air travel.

This has created a virtuous cycle of environmental responsibility within Microsoft: inspiring action, delivering results, raising greater awareness, and in turn, motivating more action.



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# Zero

## Achieving neutrality

No matter what companies currently do, their day to day business activities will still generate carbon emissions. Many companies deal with these by buying and retiring high quality carbon credits from certified or verified carbon projects. These will typically come from renewable energy, energy efficiency or forestry projects which are subsidised by the sale of carbon credits.

Carbon credits will likely play an important and continued role throughout your journey to carbon neutrality, but they can also have positive social impacts for local or international communities. It is by evaluating these additional benefits and a range of projects that you can set your own criteria and select the most meaningful way of offsetting for your organisation.

### Key considerations for carbon credits

**Selecting the right projects:** consider the location, the technology utilised and additional benefits so that the project/s chosen are in line with the values and activities of your organisation. Tailor-made portfolios can be created for you based on your priorities and needs.

**Develop your own offset project:** An organisation may want to develop its own offset project or contribute to a fund that supports project development.

**Working with budgets:** Offsets can be adapted to budgets available and while it is an investment, the return can provide competitive advantage, incentivise cost reduction from reduced energy consumption and engage stakeholders and employees when the right projects are chosen.

**Alleviating the burden:** Gain support from specialist project managers to deal with the complexities of offsetting management such as evaluating projects and building a portfolio, purchasing and retiring credits, ensuring best practice and project development.

**Ensuring best practice:** It is vitally important that carbon measurement is performed in accordance with international standards, credibility is demonstrated, and that it follows strict principles and recognised standards. Due diligence and experience in project development ensure best practice.



# Zero

## Achieving neutrality

### Carbon credits

#### Carbon credits & the Sustainable Development Goals (SDGs)

The Sustainable Development Goals (SDGs) were established by United Nations as a universal call to action to end poverty, protect the planet and ensure all people enjoy peace and prosperity. There are 17 goals in total covering areas such as climate change, economic inequality, innovation and sustainability.

Carbon credits generated from projects that support the SDGs are a great way for large organisations to, not only support the reduction of carbon emissions, but also to make a strong and public commitment to sustainable development. Good quality projects contribute to building a more resilient world by supporting economic growth and opportunity whilst addressing social and environmental need. Offsetting your emissions with the right, verified carbon credits could, therefore, help your organisation contribute to these vital global goals.





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# Zero

## Achieving neutrality Renewable Energy

Buying renewable electricity is an increasingly important part of a carbon neutral strategy and can include either on-site renewable energy generation or buying renewable electricity from the grid. Renewable energy usage continues to rise year on year as businesses strive for more ambitious action on climate and renewables become increasingly competitive.

The simplest action for most businesses is usually the latter. Taking this approach can allow your company to claim net zero emissions for electricity consumption (Scope 2) and set you on the path towards climate neutrality.

Companies must support their claim by purchasing Guarantee of Origin (GOs), Renewable Energy Certificates (RECs) or Renewable Energy Guarantee of Origin (REGOs) to demonstrate the origin of their electricity consumption, improving transparency and auditability.

### What are GOs and RECs?

GOs are certificates that prove that one megawatt-hour (MWh) of electricity was produced using renewable energy sources. GOs are exclusively issued for disclosure and transparency purposes.

RECs are the US equivalent to European GOs and in the same way represent one MWh of electricity generated from an eligible renewable energy resource.

### What is RE100?

RE100 is a global initiative of businesses committed to 100% renewable electricity, working to increase demand for – and delivery of – renewable energy. The private sector accounts for around half of the world's electricity consumption. Switching this demand to renewables will accelerate the transformation of the global energy market and aid the transition.

YOUR PATH  
TOWARDS  
CLIMATE  
NEUTRALITY





# Zero

## Achieving neutrality

### Spotlight Project: Hifadhi-Livelihoods Clean Cookstoves in Kenya

This Gold Standard verified project provides rural households who have limited access to energy with affordable, clean and efficient cookstoves to reduce the consumption of firewood and indoor smoke inhalation.

Kenya has very low forest cover and loses approximately 50,000 hectares per year due to a high dependence on firewood. This firewood would ordinarily be burned on inefficient and smoky open fires inside the home. The World Health Organisation (WHO) estimates that daily smoke inhalation from traditional fires is equal to smoking two packs of cigarettes a day.

The new and modern cookstoves consume less wood and emit less smoke with positive implications, not just for carbon emissions, but for the preservation of local forests and lives of communities. The health and well-being of women and children, most commonly undertaking wood collection and cooking chores, are particularly improved.



60%  
reduction in  
wood usage

Improvements  
to respiratory  
health (particularly  
for women)

170,000  
tCO<sub>2</sub> saved  
each year

Reduction in  
wood collecting  
hours for women  
and children

Access to  
more  
sustainable and  
affordable energy  
source

Jobs for  
24  
project  
officers

Training for  
30  
local artisans





# Conclusion

The aim of this guide is to demonstrate how organisations can achieve carbon neutrality using tried and tested methods. Every year the science tells us with increasing urgency that achieving net zero is necessary for us to protect the planet and sustain our livelihoods. The global community has responded with the Paris Agreement, but current progress and national pledges are still falling short. The window for action may be closing but organisations like yours are stepping up to meet the challenge every day.

For many companies facing a plethora of commercial challenges there have been understandable concerns about the costs and implications of such a commitment. However, the experience of many of the world's leading companies is that tackling climate change helps to improve efficiency and reduce costs, wins business, retains investors, positively impacts reputation as a business and an employer, and drives innovation across operations and supply chains.

Be a climate leader and start your carbon neutrality countdown to zero today.





## Your climate experts. Your partner for positive change.

EcoAct is an international advisory consultancy and project developer that works with clients to meet the demands of the Paris Climate Change Agreement. We work with many large and complex multinational organisations to offer solutions to their sustainability challenges.

We believe that climate change, energy management and sustainability are drivers of corporate performance and we seek to address business or organisational problems and opportunities in an intelligent way.

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