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Net-Zero Carbon Strategy

LICHFIELDS

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Executive Summary

There is a global imperative to remove carbon dioxide and other greenhouse gases from our atmosphere.

The stakes are high; emissions released by human (in)action are taking a catastrophic toll on our planet and propelling us further into an irreversible climate crisis.

The world's major governments, scientists, and heads of industry have all agreed that urgent action is necessary to avoid further global warming. Consensus is that the world must limit the global average temperature rise to 1.5°C, by halving our carbon dioxide (CO_2) emissions by 2030 and reaching net zero by 2050.

Lichfields' staff care about environmental issues. As a staff-owned business, wherein all the shares of the company are owned by an Employee Benefit Trust, we are committed to play our part.

This strategy forms our response to the challenges presented by climate change. We have set targets through the Science Based Targets initiative (SBTi) SME approach and will measure and publish our carbon emissions each year.

Our near-term target will be to reduce our Scope 1 and 2 greenhouse gas (GHG) emissions by 46% from a baseline of 2019 by 2030, in line with our SBTi commitment.

We will do this by:

- Reducing refrigerant emissions - 50% by 2025 and 75% by 2030 - by switching to the cloud and removing the need for air conditioning in most of our regional office server rooms;
- Switching or moving at least two of our offices by 2030 to non-fossil fuel heating systems;
- Reduce carbon emissions associated with heating and cooling by decreasing the office thermostat by 1 degree or reducing the heating/cooling by 5% in each office;
- When looking for new offices, target offices with good EPC (Energy Performance Certificate) ratings; and
- Calling upon our in-house environmental expert group to organise and facilitate companywide initiatives.

Our long-term target will be to achieve at least a 90% reduction in total footprint before 2050, and then offset the balance, to achieve the SBTi definition of Net Zero Carbon (NZC). This goal includes Scope 3 emissions over which we have limited control and will, therefore, require others to meet similar goals. We have also decided to offset before reaching our SBTi NZC goal.

We will offset scopes 1, 2 and business travel emissions from 2030 onwards. We will be guided by the UKGBC Carbon Offset Principles which currently represent a best practice approach to ensure high quality offset credits and safeguards the environmental integrity of the purchase.

Where possible, we will also contribute to carbon removal projects local to our offices while improving understanding and collecting data on scope 3 emissions.

Introduction

Our strategy focuses on how we will reduce our emissions as far as we reasonably can.

We already take great care to minimise the impact of our day-to-day work on the environment, but we understand the need to do more. We have set ourselves actions and science-based targets to demonstrate our commitment to combating climate change.

What does climate change mean?

Climate change is a shift in the average weather conditions experienced over the long term. It is caused by the release of greenhouse gases (mostly CO_2) into the atmosphere which trap the sun's heat and cause the planet's temperature to rise.

Whilst effects of climate change will vary globally, in the UK we are likely to experience more frequent and intense flooding events, an increase in extreme heat events, and the effects of rising sea levels.

What does Net Zero Carbon mean?

Put simply, NZC means cutting greenhouse gas emissions to as close to zero as possible, with any remaining emissions re-absorbed from the atmosphere, by oceans and forests for instance.

The SBTi Net-Zero Standard defines corporate NZC as: *"Reducing scope 1, 2, and 3 emissions to zero or to a residual level that is consistent with reaching net-zero emissions at the global or sector level in eligible 1.5°C-aligned pathways, then neutralizing any residual emissions at the net-zero target year and any GHG emissions released into the atmosphere thereafter".*

NZC requires action to reduce demand and emissions ahead of offsetting. The aim for global net zero derives from the 2015 Paris Agreement; an international treaty which aims to substantially reduce global greenhouse gas emissions in an effort to limit the global temperature increase in this century to 2 degrees Celsius above pre-industrial levels, while pursuing the means to limit the increase to 1.5 degrees.

In October 2021, the Government published its Net Zero Strategy setting out its plan to make the UK's transition to a net zero economy by 2050 – through developing new industries with new technologies aimed at overhauling the energy industry; changing the transport sector through retiring the internal combustion engine and increasing sustainable travel choices; and changing the ways we heat buildings.

The world is at a defining moment in its efforts to tackle the climate crisis. Ensuring we reduce the worst impacts of climate change and do not go beyond 1.5oC of warming will require far reaching and unprecedented changes for us all.

Business has a central role to play in reducing total emissions in line with validated science-based targets, and to develop and deliver credible net zero strategies.

Our carbon footprint baseline

What is a carbon footprint?

Carbon footprint is a measurement of greenhouse gas (GHG) emissions expressed as a carbon dioxide equivalent (tCO_2-e).

Carbon dioxide equivalent or CO_2e means the number of metric tons of CO_2 emissions with the same global warming potential as one metric ton of another greenhouse gas. (CO_2 only accounts for carbon dioxide, while CO_2e accounts for carbon dioxide and all other harmful gases as well e.g., methane, nitrous oxide etc.)

What is a carbon footprint baseline?

To begin this journey, it is important to understand the extent of our emissions (our carbon footprint) by developing a carbon baseline (a line in the sand or year zero) which we can use as the foundation for our strategy and from which we can compare future years' carbon footprints.

Setting our carbon footprint baseline

When we began our net-zero journey in 2021 we used the carbon impacts of our operations from 2019 to set our baseline; this being more representative of our typical operations when compared with 2020 or 2021 (which were impacted by the pandemic). Setting a baseline footprint by calculating our Business-As-Usual Scope 1, 2 and 3 emissions, helped us to better understand the nature of our business's GHG emissions, and to be able to intelligently set a target date by which to achieve NZC.

The terms Scope 1, 2 and 3 first appeared in 2001's Green House Gas Protocol. Today these scopes are the basis for mandatory GHG reporting in the UK. Scope 1 emissions include direct on-site emissions, e.g. gas consumption (where known to be under our direct demise) used for heating within our offices and fugitive emissions (unintentional leaks and other irregular releases of gases or vapours from a pressurised containment) from our company owned air conditioning units.

Scope 2 covers indirect on-site emissions (e.g., our directly purchased electricity). The largest source of emissions for us is our Scope 3 emissions, this includes upstream and downstream emissions in our supply chain e.g., from purchased goods and services (this includes computer equipment, marketing, telephones, and insurances etc.), capital goods (e.g. office refurbishments), fuel and energy related activities (not included in Scopes 1 or 2). Scope 3 also includes emissions associated with our scope 1 and 2 consumption, where we don't procure these directly or where we are not directly recharged for our own usage (i.e. service charged gas and electricity), waste generated from our operations, business travel, employee commuting, water consumption and homeworking. Scopes 1 and 2 are mostly within our control, whereas Scope 3 is where we have the least control.

Our 2019 baseline

Our total 2019 baseline for scopes 1, 2 and 3 was 811 tCO_2e. Our carbon baseline report can be found on our website: https://lichfields.uk/giving-more/environmental/.

Our Scope 1 and 2 baseline

Our scope 1 and 2 output for 2019 was 127 tCO2e. Scope 1: 45 tCO_2e and Scope 2: 82 tCO_2e.

Our Scope 3 baseline

Our scope 3 output for 2019 was 684tCO_2e. Emissions from third party procured services and capital goods make up 53.2% of the total footprint. Emissions from waste, water, business travel and employee commuting constitute 23.9%.

This includes any electricity, gas, or refrigerants which are controlled by our landlords, and therefore paid by us through a service charge allocation. This consumption is heavily influenced by our building managers and other tenants within our office buildings and cannot be directly controlled by us. We will look to reduce these by working with our building managers to encourage energy efficient practices. Where impossible, we will look to introduce submetering or move offices. This contributes 31.6 tonnes CO_2e (3.9%).

Committing to science-based emission targets

Science-based targets are greenhouse gas emission reduction targets which are informed by independent climate science.

Science-based targets are greenhouse gas emission reduction targets which are informed by independent climate science. These transparent targets ensure a company's emissions are in line with the Paris Agreement on Climate Change, an agreement reached in 2015 when 195 of the world's governments committed to prevent the worst effects of catastrophic climate change by limiting average global temperature increases this century to well below 2 degrees Celsius. These governments also agreed to try to limit temperature increases to no more than 1.5 degrees Celsius above pre-industrial levels.

Science based targets focus purely on greenhouse gas emission reduction.

The targets are based on current climate science and projections of what is known as the 'emissions budget'. These are the emissions permitted which will keep climate change within the limits set by the Paris Agreement.

We have set both near-term and long-term science-based targets. This means making rapid emission cuts now, halving our emissions by 2030.

By 2050, we must have reduced our emissions by least 90-95%, produce close to zero emissions, and neutralise any residual emissions which were not possible to eliminate.

Only once we have achieved this long-term science-based target can we claim we are a net-zero company.
Setting science-based targets avoids the risk of a change in management, or business priorities over-riding our ambitions on climate change.

We are dedicated to reducing our environmental impact and supporting our clients and suppliers to do the same.

In August 2022 we committed to the SBTi to reduce our Scope 1 and 2 GHG emissions by 46% by 2030 from a 2019 base year, and to measure and reduce our scope 3 emissions. Our long-term target is to achieve at least a 90% reduction in total footprint before 2050, and then offset the balance, to achieve the SBTi definition of NZC. This goal includes Scope 3 emissions over which we have limited control and will therefore require others to meet similar goals.

SCIENCE BASED TARGETS

DRIVING AMBITIOUS CORPORATE CLIMATE ACTION

Actions

We will achieve the SBTi required reduction of 46% from 2019 to 2030 by implementing the following:

- Reducing refrigerant emissions - 50% by 2025 and 75% by 2030 - by switching to the cloud and removing the need for air conditioning in our regional office server rooms;
- Switching or moving at least two of our offices by 2030 to non-fossil fuel heating systems;
- Reducing the heating/cooling by 5% in each office (equal to decreasing the office thermostats by 1 degree);
- When looking for new offices, target offices with good EPC (Energy Performance Certificate) ratings; and
- Calling upon our inhouse environmental expert group to organise and facilitate companywide initiatives.

We will:

- Publicly report our company-wide scope 1 and 2 greenhouse gas emissions inventory and progress against published targets on an annual basis by following the Greenhouse Gas Protocol Corporate Accounting and Reporting Standard and Scope 2 Guidance.
- Measure and reduce scope 3 emissions following the Greenhouse Gas Protocol Value Chain (Scope 3) Accounting and Reporting Standard.

Scopes 1 and 2

Scope 1 emissions are those emissions which come from sources which an organisation owns or controls directly.

Lichfields only has two sources of Scope 1 emissions: the gas we can identify as consumed for heating in our offices and the emissions from our company owned air-conditioning units.

Scope 2 emissions include indirect on-site emissions (e.g. our metered electricity). These emissions can be reduced through energy conservation and switching to low-carbon electricity.

Air conditioning units and refrigerant

Our London, Newcastle, Manchester, Leeds and Cardiff offices currently have Lichfields' controlled air conditioning units for server room cooling needs. These currently use two different types of refrigerants – mostly R410A, but R32 in London.

The refrigerant R410A has over three times the global warming potential of the refrigerant used in the London air conditioning unit. Although the London unit has a larger cooling capacity, the Newcastle, Manchester, Cardiff and Leed's units are responsible for more tonnes of CO_2e per year. As well as being a key source of our scope 1 emissions, the air conditioning units effectively double up the consumption loads of the servers.

As we move to a cloud-based system we aim to reduce, and in some instances remove, air conditioning units in server rooms. We are also increasing the temperature, thereby reducing cooling and energy consumption, as we remove equipment.

Actions

We will:

- Reduce refrigerant emissions - 50% by 2025 and 75% by 2030 - by switching to the cloud and removing the need for air conditioning in our regional office server rooms;
- Where new air conditioning units are required for on-site server rooms, we will undertake an emissions assessment to align to the SBTi commitments for scope 1 emissions before purchasing.
- We will ensure regular maintenance, leak testing, detection systems and cleaning of air conditioning systems to ensure units are fully efficient.
- We will implement operational practices to ensure when air conditioning is in use, all doors and windows are closed. On sunny days we will encourage closing blinds to help reduce temperature increases.
- Due to a large proportion of our consumption being attributed to Scope 3 - as a result of no submetering - we will look to re-baseline as and when we can take account of the emissions we are directly responsible for.

Selecting new offices

Buildings with zero net energy consumption employ efficiency measures and onsite renewables to produce as much energy as they use, with subsequent low or no emissions.

Due to our net-zero commitment the future selection of our offices will be very important to staying on track with the emissions reductions required, we will therefore consider net-zero carbon ready buildings when leases come up for renewal and switching or moving at least two of our offices to non-fossil fuel heating systems by 2030. We will produce an asset plan to understand implications of length of lease and emissions over time, put in place an optimisation plan, and encourage solar panels. The following will be considered:

Building fuels: where possible, offices to have electric HVAC (heating, ventilation, and air conditioning), renewable energy contracts, and fossil fuel free sites.

Transport: good links, charging points for cars and bikes.

Other services: zero to landfill waste services, ambitions of property manager/ facilities manager.

Actions

- Obtain existing energy data and compare against targets.
- Switch or move two of our offices to non-fossil fuel heating systems by 2030.
- When looking for new offices, target offices with good EPC (Energy Performance Certificate) ratings.

Scopes 1 and 2

Operational carbon

Operational carbon is the carbon released from the ongoing operation of the buildings we occupy as a business. It includes lighting, power, heating, ventilation, air conditioning, and other infrastructure such as lifts and automatic doors. Operational carbon currently accounts for 28% of global GHG.

The Better Buildings Partnership (BBP) is a collaboration of the UK's leading commercial property owners who are working together to improve the sustainability of existing commercial building stock. During COP26, the BBP highlighted the need for "radical collaboration" within commercial buildings to address climate change. One of their aims is to support their members and the industry to deliver excellent operational building performance.

We lease all nine of our offices which are in multi-occupancy buildings. Some of the property managers and landlords of these offices are BBP members, and most have NZC targets and aim to improve energy efficiency within their owned assets.

It is in both the landlords' and our best interests to work together to achieve our targets. We will engage with our landlords to help drive better sustainability within all our offices. We will discuss the possibility and practicality of adding solar panels to the roofs of the buildings we occupy; offering to help building owners to obtain planning permission.

Actions

We will:

- Share data with landlords and building managers as required to coordinate efficiency, building controls and targets.
- Request information on any planned energy optimisation projects.
- Understand how the heating and cooling plants are operating, and control settings where possible. Strive to reduce the heating/cooling by 5% in each office (equal to decreasing the office thermostats by 1 degree or turning the heating/cooling on an hour later in the morning or earlier at the end of the day).
- Understand routine building maintenance to ensure building efficiency e.g. façade, window sealant etc.
- Undertake energy audits and encourage landlords to undertake reviews of building façades, structures, plants, and air conditioning units.
- Change to low global warming potential refrigerants where new air conditioning units are required.
- Remove or reduce the scale of server rooms where possible by moving to cloud-based servers.
- Consider the proposed criteria during selection of new offices at lease breaks where current spaces are not meeting requirements to reach net-zero requirements.
- Set up or join sustainability forums to assist collaboration. Operational efficiency.

Scopes 1 and 2

Operational efficiency

We already have high efficiency standards for our business operations and purchasing in our existing policies via our ISO 9001 and 14001 standards. Our next step is to improve monitoring and understanding of our energy use.

We will extend data collection and analysis within ISO 14001 to include energy audits, capturing all data in the same place to provide comparisons between offices on a per m_2 basis.

The UK Green Building Council (UKGBC) is a charity with over 600 member organisations, which aims to 'radically transform' the way the built environment in the UK is planned, designed, constructed, maintained and operated. In 2020, the UKGBC published the required energy performance targets commercial office buildings needed to meet net zero carbon in operation.

We will assess our annual performance against UKGBC industry benchmarks to understand how we compare. As our consumption includes heating energy, we will compare our average against the whole building energy targets until suitable submetering which distinguishes between these uses can be introduced. We will target 22% reduction in energy per square foot by 2030 to achieve 90kWhe/m_2 average.

We will train our Office Managers on local heating and cooling units to ensure these are being used as efficiently as possible. Temperature controls and building management systems, including timers, ensure reduced risk of over heating or cooling, as well as coordinating both heating and cooling to reduce competition between the systems.

Actions

- Record energy data by office on a per m2 basis.
- Compare our energy data against UKGBC industry benchmarks.
- Ensure heating and cooling systems are being used as efficiently as possible.
- Target a 22% reduction in energy per square foot by 2030 to achieve 90kWhe/m_2 average.

Scope 3

The largest source of emissions for us is our Scope 3 emissions, this includes upstream and downstream emissions in our supply chain e.g., from purchased goods and services (this includes computer equipment, marketing, telephones, and insurances etc.), capital goods (e.g. office refurbishments), fuel and energy related activities (not included in Scopes 1 or 2).

Scope 3 also includes scope 1 and 2 energy consumption which we cannot directly attribute to our demise i.e. not sub-metered to us, waste generated from our operations, business travel, employee commuting, water consumption and homeworking.

Supply chain, travel and general waste

SBTi SME commitment

Lichfields has committed to measuring and reducing scope 3 emissions.

The following categories are material to our business:

1. Supply chain;
2. Employee commuting;
3. Business travel;
4. General waste; and
5. Energy consumption re-charged via service charges.

Supply chain

When setting our carbon footprint baseline we identified emissions from our supply chain to be the main contributor to our overall footprint.

To reduce these emissions, we have put in place two strategies:

1. Supplier engagement; and
2. Supplier selection.

During 2019-2021 our top ten suppliers were on average responsible for over 50% of these emissions. Five of these ten suppliers have published commitments to reducing their emissions.

Our SBTi SME commitment requires us to monitor and reduce these emissions and collect data to provide the best approach to demonstrate reductions.

Supplier engagement actions

We will:

1. Engage with our top 10 suppliers to discuss our requirements.
2. Seek to obtain carbon footprints from our top 10 suppliers – increasing the number of suppliers we engage with, and improving the quality of that data each year.
3. Collect information on existing commitments. For larger suppliers we will consider switching supplier if their carbon ambition is not suitable.

Scope 3

Supplier selection actions

We will:

1. Include minimum standards and ambition into our procurement criteria and incorporate data requirements into new supplier contracts.
2. Support our suppliers on their own journeys.

KPIs to monitor progress

- Percentage of supply chain engaged with net-zero carbon, with reduction targets by spend.
- Money spent with alternate suppliers based on sustainable procurement choices.
- Energy consumption re-charged via service charges

We will:

- Seek to work with our building managers to encourage the implementation of submetering and recharging based on energy use and not by floor area;
- Work with building managers to encourage the efficiency and reduction of energy use within common areas;
- Where no progress is being made, we will consider moving to offices which already have submetering in place; and
- When submetering is undertaken, we will further look to re-baseline so these will be captured within our own scope 1 and 2 emissions.

KPIs to monitor progress

- % of rented office floor area with dedicated electricity submetering for our demise.

Employee commuting and business travel

Our policies discourage the use of private cars where possible. We seek to minimise car mileage, both in terms of travel to work and other work-related travel. For site visits and meetings where possible and practical, travel is undertaken by train or other public transport. Taxis are only used for short journeys where public transport is unavailable or impractical. The use of private cars is discouraged unless there are no suitable alternative means of travel. For long distance travel the use of public transport and hire cars at the destination are strongly encouraged where a private car is needed to visit inaccessible locations or several sites.

Interest-free season ticket loans are available for all staff; designed to encourage employees to use public transport and to discourage long distance commuting.

Lichfields has been registered with a cycle to work scheme since 2008. We have secure bike racks and shower facilities in most of our offices.

Over 90% of our employees already travel to work using public transport, on foot or by bike.

Currently over half of the emissions due to commuting by car are from our Newcastle office, with 37% of staff travelling by car.

While car mileage costs only amount to 5% of business travel related spend, they represent 33% of our business travel emissions.

Overground rail is currently in the process of being electrified; between 2019 and 2021 the footprint of rail reduced by almost 10% and this will increase over the coming years.

Domestic air travel: 19 flights were taken during the baseline year (2019).

Travel actions

We will:

1. Engage with staff and educate them on the impact of their travel choices.
2. Discourage the use of first class and premium class business travel due to the increased emissions associated with this.
3. Take action to reduce car usage in offices with largest carbon impact.
4. Consider implementing a car sharing commuter scheme in the Newcastle office.
5. Extend our Senior Directors' salary sacrifice electric car scheme to Planning Directors from March 2023.
6. Encourage electric vehicle use when attending client meetings, where public transport is not possible.
7. Encourage cycling to client meetings.
8. Where a taxi is required, use electric vehicles where they are available.
9. Encourage the use of courier firms which use electric vehicles, public transport (e.g., trains for overnight deliveries) and pedal and electric bikes.
10. Lichfields' mileage expenses form to include type of vehicle used: petrol, diesel, electric or hybrid.

KPIs to monitor progress

- Percentage of employee commuting and business travel by public transport.
- Percentage reduction of car travel emissions.

General waste

Average emissions of 160 $kgCO_2e$ per employee (calculated in the 2019 baseline report) is currently associated with operations waste.

When calculating our baseline carbon footprint, only 10% of waste emissions were calculated using actual data. The Bristol, Cardiff and Edinburgh offices' emissions were then extrapolated to the remaining offices using employee headcount.

Poor waste data indicated 91% of our waste went to landfill and only 9% was recycled. We know this is not a true reflection and demonstrates the need for accurate data.

General waste actions

We will:

1. Work to obtain accurate data from waste service providers.
2. Investigate the services and facilities available for each office.
3. Consider switching service providers to ensure all offices have a zero-to-landfill guarantee by 2030.

KPIs to monitor progress

- Percentage coverage of actual data.
- Percentage of waste diverted from landfill.

Communication

We will embed sustainability into our advice and services.

We will report annually to the SBTi against our SME commitments, including:

- Our annual footprint;
- Progress against scope 1 and 2 targets; and
- Commentary on scope 3 progress.

Staff will receive training on our net zero strategy and how they can help to reduce Lichfields' carbon footprint. The training will include what is recycled within their office, re-used, and how the circular economy works – decoupling consumption from resource use. Training for new staff will be included during their induction.

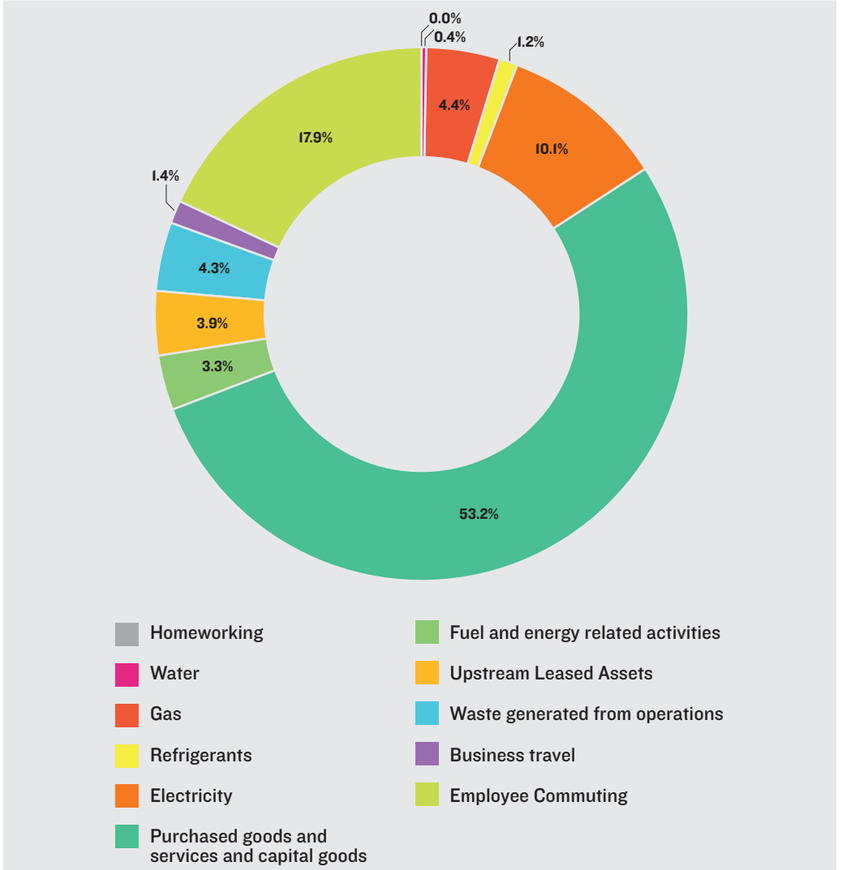
We will communicate with major elements of our supply chain, to determine the extent of their NZC plans and to replace any estimates with actual measurements as they become available.

We will share updates and progress against targets on our staff intranet and company website.

Each year we will upload our carbon footprint reports onto our website. Our 2019 baseline and 2021 carbon footprints reports can be found below.

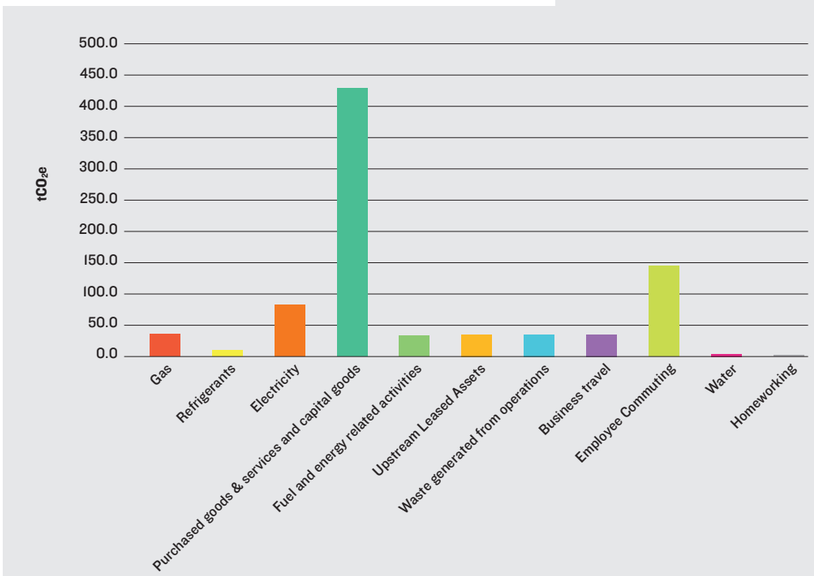
Appendix 1:

Lichfields' baseline carbon footprint 2019

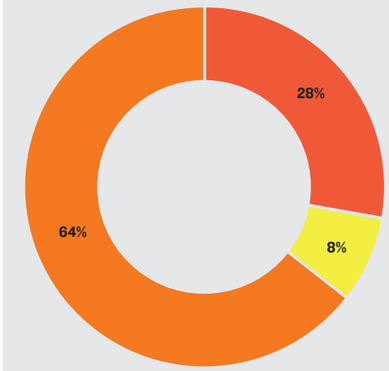


GHG Protocol Scope	GHG emissions tCO2e	%
Scope 1	45	5.6%
Gas	35.4	4.4%
Refrigerants	9.9	1.2%
Scope 2	82	10.1%
Electricity	81.6	10.1%
Scope 3	684	84.3%
Purchased goods & services and capital goods	431.7	53.2%
Fuel and energy related activities	26.8	3.3%
Upstream leased assets	31.6	3.9%
Waste generated from operations	34.6	4.3%
Business travel	11.3	1.4%
Employee Commuting	145.0	17.9%
Water	3.2	0.4%
Homeworking	0.3	0.0%
Total	811	100%

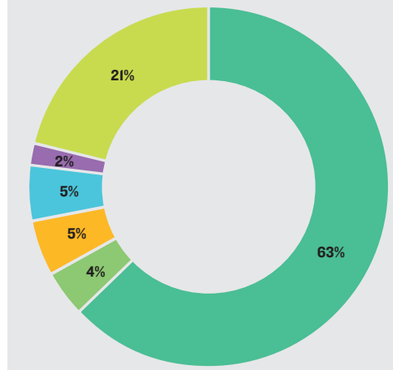
Breakdown of the value chain emissions by GHG protocol scope and category



Scope 1 & 2 breakdown

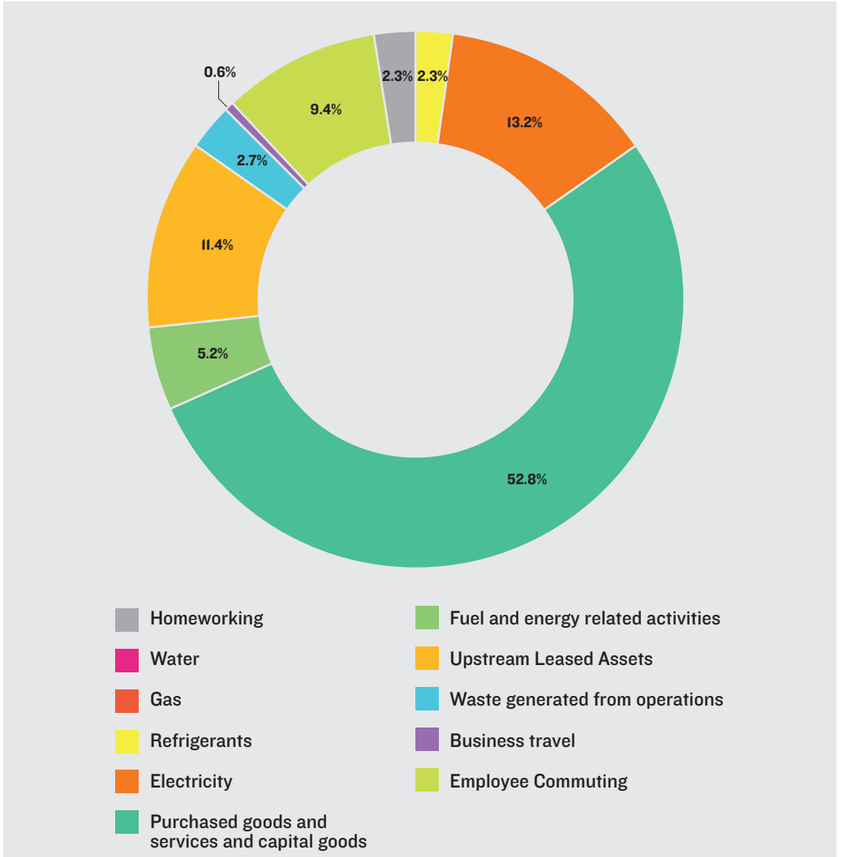


Scope 3 breakdown



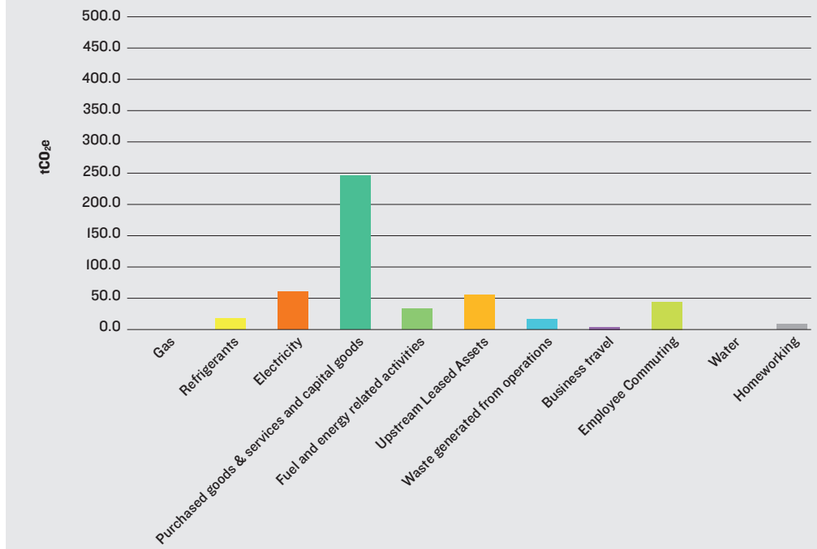
Appendix 2:

Lichfields' 2021 carbon footprint

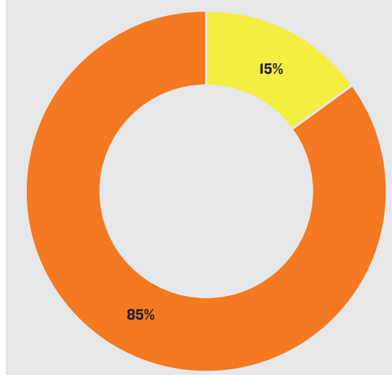


GHG Protocol Scope	GHG emissions tCO2e	%
Scope 1	11	2.3%
Gas	0.0	0.0%
Refrigerants	10.7	2.3%
Scope 2	61	13.18%
Electricity	61.2	13.18%
Scope 3	393	84.52%
Purchased goods & services and capital goods	245.5	52.84%
Fuel and energy related activities	24.3	5.23%
Upstream leased assets	52.8	11.35
Waste generated from operations	12.5	2.68%
Business travel	2.8	0.6%
Employee Commuting	43.5	9.36%
Water	0.8	0.17%
Homeworking	10.6	2.28%
Total	**465**	**100%**

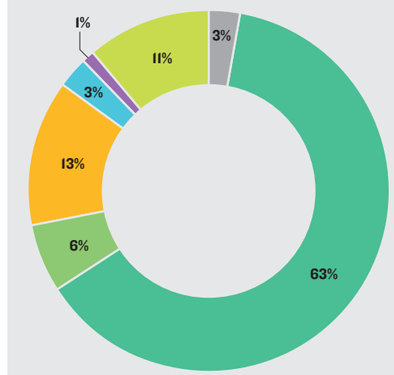
Breakdown of the value chain emissions by GHG protocol scope and category



Scope 1 & 2 breakdown



Scope 3 breakdown



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