2024

Carbon footprint guidance for barristers in England and Wales

Guidance and recommendations for barristers on calculating, reducing and offsetting their carbon footprint

Version 1.0, November 2024

Introduction

The Climate Change Act 2008 (as amended by S.I. 2019/1056) committed the UK Government to reducing greenhouse gas emissions by at least 100% ('net zero') based on a 1990 baseline by 2050. The 2008 Act requires the Government to set legally binding carbon budgets as stepping stones to achieve net zero and produce a UK Climate Change Risk Assessment every five years to assess the risks and opportunities presented by climate change. The UK's Sixth Carbon Budget committed the UK to reducing emissions by 68% against a 1990 baseline by 2035 (CCC, 2024). The UK has reduced its territorial greenhouse gas emissions by 428 MtCO2e between 1990 and 2023, a reduction of 53%, while the economy grew around 80% over the same period (CCC, 2024). Every sector and profession, including barristers, have a role and moral responsibility, albeit not necessarily a legal responsibility, to calculate, reduce, and offset their emissions to help the UK Government achieve its commitment.

The Bar Council Sustainability Network have produced several helpful resources for chambers to assess their carbon footprint (see Bar Council). However, only barristers themselves have the data needed to provide those who instruct them with a full breakdown of the Scope 1, 2, and 3 emissions arising from their practice. Barristers, in any event, contribute to chambers' Scope 3 emissions, and will consequently need to supply chambers with the relevant in any event.

The BSB estimated there were 14,158 self-employed practising barristers in the UK (BSB, 2024). There is insufficient, publicly accessible data to provide a credible approximation of the carbon footprint of this group. To provide a rough approximation, if a practising self-employed barrister produces on average 3.5 t/CO2e per annum, then this part of the profession produces approximately 48,730.50 t/CO2e per annum, around double the Scope 1 and 2 carbon emissions of all UK Costa Coffee stores in 2022 (Costa Coffee, 2024).

As a chartered environmentalist who completed a Personal Injury and Clinical Negligence pupillage at a London set between October 2023 and 2024, I was naturally inclined to consider the carbon footprint of my practice. I produced this guidance primarily for self-employed barristers (although some parts may also be useful to employed barristers) to share my experience of calculating, reducing and offsetting my carbon footprint during pupillage. I will have achieved my goal in committing this to paper if it persuades other barristers to calculate, reduce and/or offset their carbon footprint after reading this guide.

DANIEL JACKLIN

Barrister, St Philips Chambers

A worked example

During pupillage, my carbon footprint was 1.60 t/CO2e, which included all non-negligible emission sources for Scopes 1, 2, and 3 (see Annex A for the fully worked example). From informal conversations with other barristers, that is likely at the lower end of what most barristers emit, primarily because I had already taken steps to minimise my emissions from the start of pupillage. My emissions were broadly equivalent to those emitted by consuming 162 gallons of diesel (USEPA, 2024). As a rough approximation, it would take 1.9 acres of dense forest an entire year to remove the same quantity of emissions from the atmosphere (USEPA, 2024).

My first six typically involved three days per week in my London chambers or attending court and two days working from home. My second six involved travelling to courts in every corner of England and Wales four to five days per week. You can see an overview of the courts I travelled to in my second six on the map below. Many barristers may not travel quite as far or as often. I live in Peterborough, which is well-situated and can reach most parts of England and Wales by train.

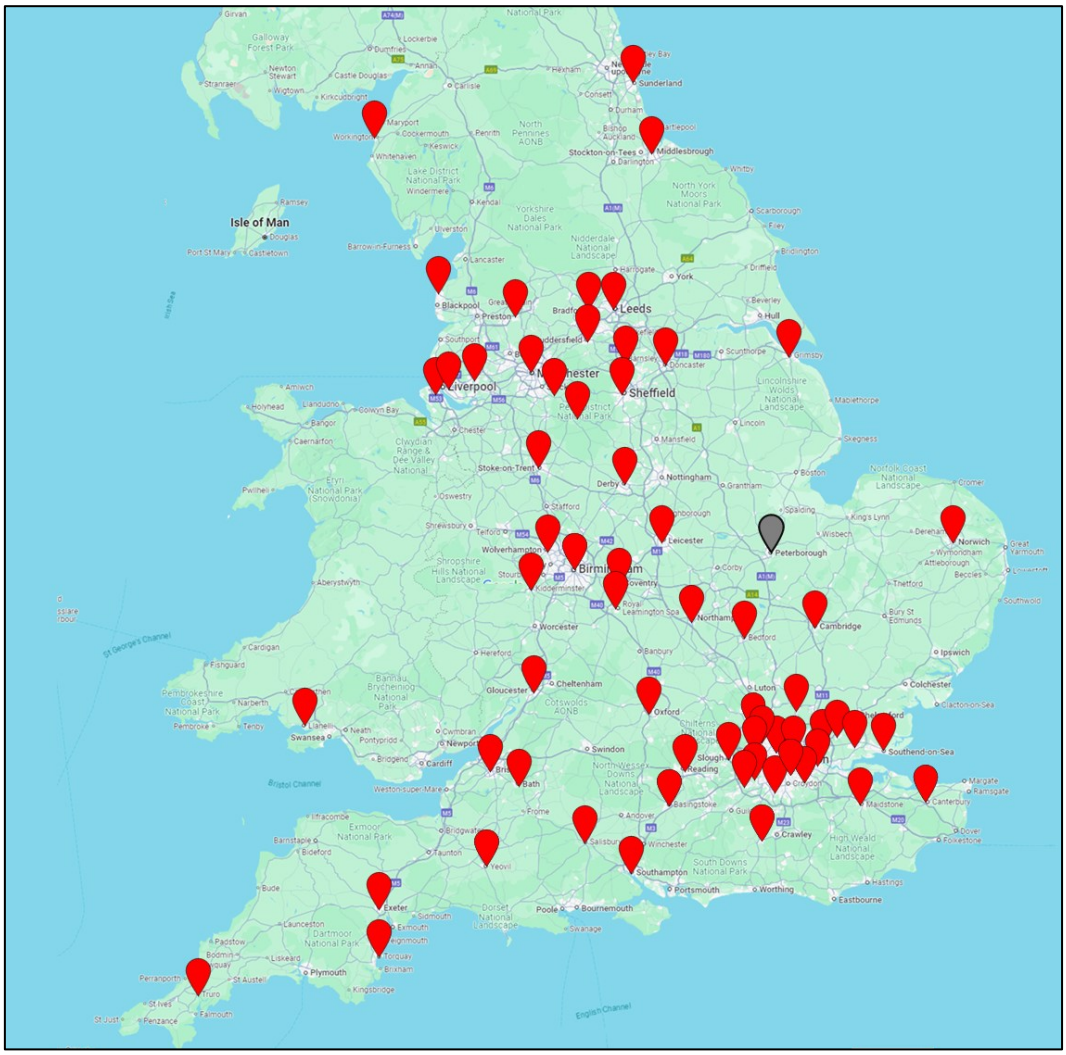

Image 1: A map of court locations I attended in my second six

By far, the largest emission source in my practice (54%) was business travel, almost exclusively from using the railways on which I travelled 28,282 miles across England and Wales. The second largest emission source was from personal/work vehicles, namely my car (28%). Emissions from using chambers, particularly in my first six, were the third largest source (8%) and were broadly in line with my home electricity consumption over the full period. Other emission sources made up the remaining 10% of emissions.

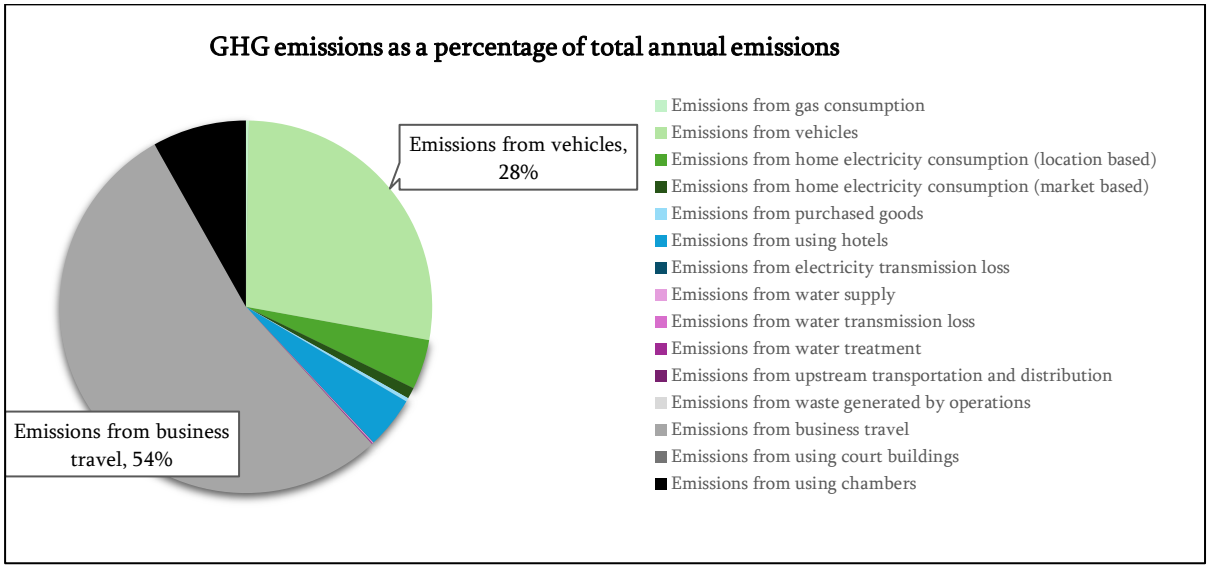

Image 2: My GHG emissions during pupillage by emission source

My emissions peaked in May 2024 in my second six, a busy month of travelling with some long-distance journeys to Torquay, Workington and Haverfordwest. January 2024 produced the lowest emissions, a more paperwork-based month working from home. 65% of total emissions were in my second six, dipping only in August 2024 when I took some days off to attend some interviews. Travel to and from interviews and networking events is included in my calculations where it arose from my practice as a barrister.

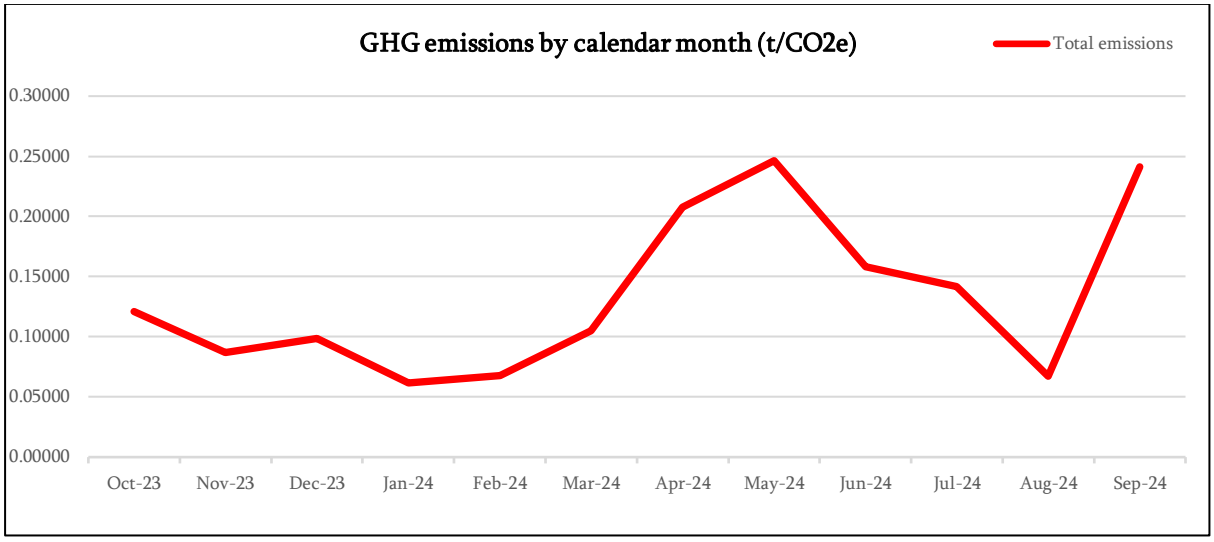

Image 3: My GHG emissions during pupillage by calendar month

Calculating emissions

There is no specific methodology to identify emission sources or set out guidance on how to report emissions from your practice as a self-employed barrister. Employed barristers' emissions should be reported in line with the available guidance for aimed at corporate entities (see IWA42; ISO 14064-1; ISO 14068; GHG Protocol). For a rough approximation of your carbon footprint, there are many free calculators online and one provided by the Bar Council (see WWF; Bar Council). A sensible scope is to only include those emissions arising from your practice as a barrister.

Before proceeding step by step through the emission sources and how to calculate them, a brief word on conversion factors (also known as 'emission factors'). The UK Government produces a list of approved conversion factors (see DESNZ). This should be your starting point, but wherever possible, the most accurate, reliable, and targeted conversion factors should be used. For example, there is a one-size-fits-all emissions factor for rail travel in the UK, but for a more accurate picture, use conversion factors specific to each rail operator to account for the differences between operators (diesel vs electric trains being one obvious example).

Scope 1 emission sources

Scope 1 emissions are usually straightforward to calculate, with emissions being primarily from home gas consumption and vehicles owned or leased by the barrister. Pupils do not own shares in chambers or directly control access to the premises. Therefore, I reported emissions from chambers under Scope 3. Where a barrister owns shares in the chambers they belong to, it may be more accurate to report emissions from the use of chambers under Scope 1, but I would keep these emissions separate from those arising from home working as this will help you develop a more targeted Carbon Reduction Plan ('CRP'). If your chambers leases its building, emissions from using chambers should be reported under Scope 3. For further guidance, see the GHG Protocol Guidance for Scope 1, 2 and 3 emissions (see GHG Protocol).

Some barristers may also burn oil or wood to generate heat in their homes or home offices when they are working from home. If so, this will need to be added as an additional Scope 1 emission source. Barristers may also have air conditioning units which are used when working from home, which is an additional Scope 1 emission source.

Emissions from gas consumption

If your home and/or home office heating systems consume gas, you will need your consumption in m^3 which you should be able to find on your energy bill. Unlike electricity meters which measure in energy units (kWh), gas meters in Great Britain measure the volume of gas being used (see Ofgem, 2014). However, the volume of gas for a given mass is variable based on temperature and atmospheric pressure. To ensure consumers are billed consistently, a nationally standardised volume correction factor for all domestic consumption is applied, as specified by The Gas (Calculation of Thermal Energy) Regulations 1996. The hydrogen transmission network is yet to be operationalised, so all natural gas supplied to domestic buildings can be considered using the same conversion factor. I would recommend using the DESNZ conversion factor for natural gas when performing your calculations (see DESNZ). This information is sometimes included in your energy bill.

Not all of your home gas consumption arises from your practice as a barrister. Only that which arises from your practice, should be included in your reporting. In my case, heating tap water for home handwashing in the bathroom was the only gas consumption that arose from my practice as a barrister (because if I had an office job, I would not be consuming gas at home during normal working hours). I estimated this to be 10% of my home gas consumption, based on hand washing being cumulatively 10% of the time taken to shower per day.

Datapoint	Source of conversion factors
Emissions from gas consumption	DESNZ, GHG Conversion Factors for Company Reporting

Emissions from vehicles

Emissions from this source arise from the use of vehicles owned or leased by the barrister for travelling to and from activities which arise from your practice as a barrister. This should include attending court, client conferences, potentially commuting to chambers, and networking events. You will need to make a list of journeys, recording the mileage travelled and the vehicle type and model used. Whilst there is a generic conversion factor for vehicles in the annual guidance from the UK Government's Department for Energy Security and Net Zero entitled 'GHG Conversion Factors for Company Reporting' (see DESNZ), I recommend a more accurate conversion factor be used. Vehicle type-specific conversion factors are available (see ENV0701), however, I recommend using a model-specific verified conversion factor. The model-specific conversion factor for your vehicle can be found using the DVLA vehicle information service (see DVLA) and will be reported in g/CO2 per km, which will need converting into kg/CO2e per mile (unless you want to keep your records in kilometres). With any unit conversions required during your

calculations, I recommend using an online calculator tool to minimise errors. Google will automatically do the conversion for you if you type in something like: 'What is 3 g/CO2 per km in kg/CO2e per mile?'. Just ensure you are on the Google UK website to avoid any conversion errors.

Emissions from purchasing new vehicles or vehicle parts should be accounted for under Purchased Goods in Scope 3. Emissions arising from charging electric vehicles at home should be accounted for under 'Emissions from electricity' in Scope 2. Where your electric vehicle is charged elsewhere, those emissions should be reported under Scope 3.

Vehicle datapoint	Source of conversion factors
Generic conversion factor	DESNZ, GHG Conversion Factors for Company Reporting
Type-specific conversion factor	ENV0701 UK Government Emissions from Journeys
Model-specific conversion factor	DVLA vehicle information service

Scope 2 emission sources

Scope 2 emissions for most barristers comprise just one source, home electricity consumption, during periods of home working. It is best to report electricity consumption on trains, in hotel accommodations, in court buildings, and when using chambers separately under Scope 3 emission sources.

Emissions from electricity

If you work from home, you will need your home electricity consumption in kWh from your energy bill. Electricity conversion factors are divided into two categories: location-based and market-based calculations. This is to account for supplier differences in how electricity is generated and transferred to the grid.

The grid emissions factor should be used for the location-based conversion factor, which is based on the fuel mix of the national or regional grid. The national grid emissions factor is called the 'electricity generation' conversion factor in the annual guidance from the UK Government's Department for Energy Security, and Net Zero entitled 'GHG Conversion Factors for Company Reporting' (see DESNZ).

Some businesses are trying to move to use regional grid emission factors, which is an approach used in the USA, Australia, and other large countries (IGES, 2024). This information for the UK is available via the National Grid ESO Carbon Intensity API (see National Grid ESO). However, the API only provides a snapshot of the fuel sources being consumed by region, so you will need to take point measurements each month to calculate average regional grid emissions if you adopt this method. I recommend sticking with the

grid emission factor for now, as this remains the recognised method. As location-based emissions use the grid emission factors, changing your energy supplier to one which uses 100% renewable sources will not change your location-based emissions.

The market-based conversion factor is based on the fuel mix of your electricity supplier. My electricity supplier until September 2024 was Utility Warehouse. Ofgem requires electricity suppliers to report their fuel mix, typically found via the supplier's website (see this example from Utility Warehouse). They provided that the emissions from their fuel mix were 0.0466 kg/CO2e per kWh. On 1 September 2024, I switched to Green Energy UK (aka 100Green), which supplies 100% of electricity from renewable sources, and reduced my market-based emissions to zero (see 100Green).

For further guidance on reporting Scope 2 emissions, see the GHG Protocol Guidance for Scope 2 emissions (see GHG Protocol).

Datapoint	Source of conversion factors
Emissions from electricity generation	DESNZ, GHG Conversion Factors for Company Reporting

Scope 3 emission sources

The GHG Protocol provides 15 standard categories for reporting Scope 3 emissions. I modified these to accommodate the typical practice of a barrister, avoid double counting, and streamline reporting. Scope 3 emissions for most barristers will consist of:

- Emissions from purchased goods.
- Emissions from using hotels.
- Emissions from electricity transmission loss.
- Emissions from water supply.
- Emissions from water transmission loss.
- Emissions from water treatment.
- Emissions from waste generated by operations.
- Emissions from business travel.
- Emissions from using court buildings.
- Emissions from using chambers.

For further guidance, see the GHG Protocol Guidance for Scope 3 emissions (see GHG Protocol).

Emissions from using public transport

Rail travel makes up most of the typical barrister's mileage on public transport, and emissions from this form of travel will likely remain for some time. The Office for Rail Regulation ('ORR') reported in October 2023 that only 39% of railway tracks in England

and Wales were electrified (see ORR, October 2023). Whilst the energy transition to renewable sources of electricity production, such as wind, solar and nuclear, provides hope of a zero-emission railway for 39% of tracks in England and Wales which are electrified, emissions from the remaining 61% of non-electrified tracks are unlikely to change much without substantial new funding for track electrification or hydrogen-powered rail stock electrified (ORR, 2023; Arcadis, 2023). Especially considering that in 2023, only 0.7% of the remaining non-electrified tracks in England and Wales were electrified (ORR, 2023). Rail travel remains, however, one of the greenest modes of travel.

To calculate GHG emissions from using public transport, you will need a list of the miles travelled, the mode of transport, the transport operator, and the conversion factor for that mode of transport or operator. You will need to keep a log of all journeys arising from your practice as a barrister. If travel arises infrequently because of your work, I recommend using the relevant conversion factor and year from the UK Government's GHG Conversion Factors for Company Reporting. For taxis, there is a better conversion factor located in the UK Government Emissions from Journeys across the UK (see ENV0701).

However, if, like me, rail travel is your largest emission source, I would suggest using specific conversion factors for each rail operator (see ORR, November 2023; Nexus, 2023). For example, the Nexus Tyne and Wear Metro produced 6.5 times less emissions per mile than Cross Country services in 2022. You can use the Scot Rail and LNER carbon calculators to estimate the miles travelled by rail (see Scot Rail and LNER). London Underground and DLR reported conversion factors can be found in a response to a request under the Environmental Information Regulations 2004 for the years 2022/23 (TfL, 2022).

You can adopt a similar approach with other modes of transport if they are a substantial emission source for you. For flight emissions, I recommend the ICAO Carbon Emissions Calculator (ICAO). For water transport, I recommend using the UK Government Emissions from Journeys data (see ENV0201) or the ferry/cruise ship operator's own conversion factor.

Rail operator	Source of conversion factors
• Avanti West Coast • c2c • Caledonian Sleeper • Chiltern Railways • CrossCountry • East Midlands Railway • Elizabeth Line • Eurostar • Govia Thameslink Railway • Grand Central • Great Western Railway • Greater Anglia	ORR Table 6103 Estimates of normalised passenger CO2e emissions by operator

• Heathrow Express • Hull Trains • London North Eastern Railway • London Overground • Lumo • Merseyrail • Northern Trains • ScotRail • South Western Railway • Southeastern • TfW Rail • TransPennine Express • West Midlands Trains	
Tyne and Wear Metro	About Nexus – Environment
• London Underground • DLR	TfL, EIR disclosure
• National Rail – Diesel • National Rail - Electric	ORR Table 6100 Estimates of normalised passenger carbon dioxide equivalent emissions in Great Britain
Regular Taxi	ENV0701 UK Government Emissions from Journeys
Airlines	ICAO Carbon Emissions Calculator (ICEC)
Water Transport	ENV0201 UK Government Emissions by Transport Mode

Emissions from work accommodation

Hotels are the primary form of work accommodation arising from our practice as barristers. Where hotels are used regularly, they are likely to remain a substantial emission source because of the services they provide (i.e. laundry, showers, pools, etc.), however they are becoming more sustainable (WSHA, 2024). Barristers need to balance hotel use with increased emissions from business travel arising from their work.

To calculate GHG emissions from hotel use, you should create a list of the nights spent in hotels and other non-domestic accommodation. You should, in my view, include hotels used when attending networking and other work-related events. I rarely stay overnight in my practice, and during pupillage I spent only seven nights in hotels. For more senior barristers and those working away from home for long periods, this emission source could be much more substantial. To minimise your emissions, you should consider whether returning home or staying overnight produces the fewest emissions. Where hotel use is low, I recommend using the relevant conversion factor and year of the UK Government's GHG Conversion Factors for Company Reporting (DESNZ, 2024).

Where hotel use is a more substantial emission source, you may investigate using a hotel or hotel chain-specific conversion factor. Better hotels subscribe to the Hotel Carbon

Measurement Initiative methodology, which reports emissions per room per night (WSHA, 2024). However, few UK hotels appear to report this data in their booking information or on their websites. The GreenView Hotel Footprinting Tool is based on the Cornell Hotel Sustainability Benchmarking Index 2024 and provides a conversion factor based on the star rating and country location where the hotel is based (Green View, 2024). There are some hotel operators which report group-level emissions per room per night, such as IHG (IHG, 2023). Whatever conversion factor approach you adopt, the key is to ensure it is proportionate to the emission volume as a percentage of your overall GHG emissions.

Hotel type/operator	Source of conversion factors
• UK hotel rooms outside of London • UK hotel room in London	UK Government, Department for Energy Security and Net Zero, GHG Conversion Factors for Company Reporting
• 2 star hotel by country • 3 star hotel by country • 4 star hotel by country • 5 star hotel by country	Green View Hotel Footprinting Tool
• IHG plc	IHG Responsible Business Report

Emissions from water supply

Emissions from this source will typically apply to most barristers who work from home some or all of the time. I recommend considering emissions produced from water supply to other buildings separately, including when using court buildings, whilst travelling, or working from chambers. Future water scarcity is a concern in the UK, with the Environment Agency warning that many areas of England, such as Sussex, Cambridgeshire, Suffolk, and Norfolk, are already experiencing huge pressure on water resources (Environment Agency, 2024). Water UK warns that emissions from this source may grow due to increasing demand and the need for substantial investment in new infrastructure over the coming years (Water UK, 2022), although there should be reduced emissions from energy-intensive infrastructure as the national renewable energy transition and national hydrogen network rollout.

To calculate GHG emissions from the water supplied to your home, you will need your water usage. You can find this on your water bill in m^3. You need to calculate the percentage of water supplied which arose from your practice as a barrister. I worked this out in my own assessment by basing the calculation on 20% or an average of 33.6 hours of working from home per week. I recommend using the relevant conversion factor and year from the UK Government's GHG Conversion Factors for Company Reporting (DESNZ, 2024).

Calculation	Source of conversion factors

• Water supply emissions	UK Government, Department for Energy Security and Net Zero. GHG Conversion Factors for Company Reporting

Emissions from water transmission

Emissions from this source will apply to all barristers who work from home some or all of the time. Emissions are produced when water processed at treatment facilities is pumped to your home. When water is moved from the treatment facilities through the network to supply your home, a certain quantity of water is lost in transmission due to leakage. The electricity used to move that water from the treatment facilities part way to your home is unaccounted for by emissions from supply and treatment. A percentage of these emissions should be accounted for as they arise because of your need to be supplied with water. Further guidance on water footprinting can be found in ISO 14046 (ISO 14046).

To calculate emissions from water transmission, you will first need to calculate the quantity of water supplied to your property (which you should have from the previous emission source). You then need to obtain the percentage of potable water supplied that was lost due to leakage during the transmission process. The quantity of water lost can be obtained from most suppliers' annual reports (for an example report, see Anglian Water, 2024). This figure should be divided by the total quantity of potable water supplied, which can also be found in the water suppliers' annual reports. To give you some idea as to the percentage, by my calculation using data from Anglian Water, the potable water lost during transmission was 17.7% in 2023 and 18.2% in 2024. You then need to reduce the total water supplied by the percentage of consumption attributable to your practice as a barrister. Again, I based my calculations on 20% or 33.6 hours of home working per week. You then need to reduce this percentage from the one calculated above to produce a final percentage of water lost during transmission that arises from your practice as a barrister. Apply this to the water supplied to your property and then apply the conversion factor.

The UK Government does not produce a conversion factor for emissions from leakage during transmission. Coordinated work at an international level is being done to produce a methodology for calculating emissions from this source (IWA, 2023). The Chartered Institution of Water and Environmental Management ('CIWEM') has written a policy paper on the issue, but it falls short of providing an appropriate conversion factor (see CIWEM). The emissions arise from the energy consumed to supply the water to your home and the treatment facilities, which ensure the water is potable. I recommend adding together 50% of the UK Government conversion factor for water supply (DESNZ, 2024) (to reflect that the water is lost in transmission to your property) and 100% of the conversion factor for water treatment. This produces, in my view, an appropriate conversion factor for use in the interim until the International Water Association ('IWA') completes its work on a methodology for calculating this conversion factor. You can read more about this work

in its 2023 whitepaper entitled Leakage Emissions Initiative: Establishing a Standard Carbon Balance for Drinking Water Utilities (IWA, 2023).

Calculation	Source of conversion factors
• Water transmission emissions	UK Government, Department for Energy Security and Net Zero. GHG Conversion Factors for Company Reporting

Emissions from water treatment

Emissions from this source will apply to all barristers who work from home some or all of the time. I recommend considering emissions produced from water supply to other buildings separately, including when using court buildings, whilst travelling or working from chambers.

To calculate emissions from water treatment, you should check your water bill to see what percentage of water supplied is estimated to require treatment. In my case, Anglian Water advised that 90% of the water supplied would likely require treatment. You can find this on your water bill in m^3. You need to reduce the water supplied to the percentage which arose from your practice as a barrister. Again, I based my calculations on an average of 20% or 33.6 hours of home working per week. I recommend using the relevant factor and year of the UK Government's GHG Conversion Factors for Company Reporting for this emission source (DESNZ, 2024).

Calculation	Source of conversion factors
• Water treatment emissions	UK Government, Department for Energy Security and Net Zero. GHG Conversion Factors for Company Reporting

Emissions from electricity transmission loss

Emissions from this source will apply to most barristers who work from home some or all of the time, with the exception of those whose homes are entirely powered by on-site renewable electricity. I recommend considering emissions produced from electricity transmission loss to other buildings separately, including when using court buildings, whilst travelling or working from chambers. The future of emissions from electricity transmission losses is uncertain according to the National Grid, with some, such as WSP's Technical Working Group, raising concerns that transmission losses may increase as the grid struggles to regulate power flows from demand with power generation (National Grid, 2024). Currently, they make up a small proportion of a barrister's emissions.

To calculate GHG emissions from electricity transmission loss, you will need your electricity consumption data, which you should already have from calculating your Scope

2 emissions. You also need to obtain the percentage of electricity supplied that was lost in transmission. I used the National Grid Annual Environmental Report for 2023 figure for annual transmission loss in 2023, which was 2.51% (National Grid, 2023).

Further, you will need to adjust your emissions based on the percentage of electricity supplied that arose from your practice as a barrister. Again, I based my calculation on 20% or 33.6 hours of home working per week. Finally, you need the percentage of electricity derived from fossil fuels, as only electricity transmission derived from GHG-emitting sources should be included. I recommend you use the relevant conversion factor and year from DESNZ's GHG Conversion Factors for Company Reporting (DESNZ, 2024).

Calculation	Source of conversion factors
• Electricity transmission loss	UK Government, Department for Energy Security and Net Zero. GHG Conversion Factors for Company Reporting

Emissions from using court buildings

There is no reliable way of estimating emissions from using court buildings or chambers, and, in any event, chambers are a business and the court buildings a public service, both of which, in my view, are better placed to report their emissions in their own carbon footprint report. Until such time that HMCTS publishes a conversion factor for each court and tribunal on a per user per hour basis, regrettably barristers will be unable to include these emissions in their Scope 3 calculations. For the few hours that I am at court and invariably operating off battery power for my laptop and mobile phone, the emissions, I suspect, would be negligible (less than 1% of overall emissions) in any event.

Emissions from using chambers

If you frequently work in chambers, it may make up a greater proportion of your emissions than for barristers are largely work from home. For those who work in chambers regularly, it may be proportionate to estimate what percentage of chambers emissions arise from your practice. You could approach this by dividing the chamber's total emissions by the number of tenants and include this as the measure of your impact. This approach does not require you to keep a log of the hours you work in chambers or grapple with which conversion factor should be used, but it is likely to overestimate emissions for some barristers and underestimate for others.

However, if your chambers have not assessed their carbon footprint, then you will need to calculate the emissions produced by your use of chambers by another means. The additional emission sources unaccounted for under the other headings in this guidance may include the following sources (which should be limited in scope to those that arise from your practice):

- Emissions from purchased goods (coffee, tea, paper, office furniture, food for meetings, JSMs, events etc.).
- Emissions from electricity consumption.
- Emissions from gas consumption.
- Emissions from water supply, transmission, and treatment.
- Emissions from waste disposal.
- Emissions from telecommunications usage.

To calculate the emissions from your use of chambers, I recommend you follow the guidance for each of the above emission sources. I would exclude from reporting under this emission source any emissions associated with commuting to and from chambers and report that information under emissions from vehicles or public transport. Where office furniture is shared between members of chambers, it is best to look at whether it still would have been purchased if only you required it. If it would, then you should include those emissions under this emission source.

If you purchase goods such as coffee/tea for your own use in chambers, this can make it easier to track the emissions associated with hot drinks. For example, Nescafe provides a service via its website that will give you the lifecycle emissions associated with its Nescafe Gold Blend product using the batch code on the side of the product (see Nescafe). They also provide a lifecycle emissions conversion factor for the product (3.5 kg/CO2e per 100g). However, you only need to include the coffee consumption that arises directly from your practice. I determined not to include coffee consumption in my calculations because I would drink the same amount on days when I am not working, as a barrister or in any other capacity, and the coffee I drink I take with me from home.

Gas consumption is another area that likely does not arise directly from your use of chambers (because the heating settings are typically static whether you are in chambers or not), but a proportion of the emissions arise from your practice as a barrister. Telecommunications usage, as is discussed below, is likely to produce negligible emissions. Some electricity consumption in chambers arises because you are working from chambers, but there is also a proportion of consumption that arises from your practice when you are not working there (namely, the work done by chambers staff on your behalf, such as your clerks). Where these emissions are more than negligible, they should be included in your calculations. Keeping a log of the hours you work in chambers can help you more accurately calculate the increased emissions caused by working from chambers.

For my calculation as a pupil, emissions from purchased goods, gas consumption, water supply, water transmission, water treatment, and telecommunications arising from using chambers were zero, negligible, and/or did not arise from my practice as a barrister. There would have been some emissions had I been a member of chambers or owned shares in the building. I kept a log of when I worked from chambers and used the home working conversion factor to calculate the emissions from my electricity usage.

Calculation	Source of conversion factors
• Chambers emissions	UK Government, Department for Energy Security and Net Zero. GHG Conversion Factors for Company Reporting

Emissions from purchased goods

To calculate emissions from purchased goods, you will need information from the manufacturer of the goods and, if relevant, information from the carrier that delivered it to you or the store from which you bought it. This can be quite time-consuming for many barristers. However, few purchased goods are needed to practise as a barrister. For most barristers, it will consist of little more than a laptop, mobile phone, shoes, and a suit for their practice. For example, if you purchase a Microsoft Surface 2 laptop, Microsoft provides the lifecycle emissions (excluding use) produced by this type of laptop (see Microsoft), and Royal Mail, who may deliver the laptop, provide information on emissions by parcel size (see Royal Mail).

Food for JSMs and conferences would also need to be included within purchased goods. There are good examples of chambers, such as Matrix Chambers, transitioning from a meat-based to a vegetarian-only offering for JSMs, meetings, and events to reduce the carbon emissions from food consumption further (see Legal 500 Green Guide).

One staple item on which there appears to be no carbon footprint information is a barrister's wig. A hemp-based option is likely to be the more carbon-friendly purchase (see Hemp & Hemp), although the saving is unlikely to justify the emissions from disposing of your horse-hair wig to switch to the more sustainable hemp-based alternative, although reuse schemes are available to prevent wigs and gowns from going to landfill (see Gray's Inn).

Calculation	Source of conversion factors
• Purchased goods	See the manufacturer's information for the specific good

Emissions from waste disposal

To calculate emissions from waste disposal, you will need the information from the waste carrier with whom you disposed of the waste. Printed documents are likely to be the main source of waste produced by barristers. Arguably, court bundles are the waste of those who instruct us rather than barristers themselves. If you adopt a paperless practice, there should be infrequent waste produced by your practice. It is worth being aware that shredded paper often cannot be recycled by local authorities, but London Recycles offers some tips on how you can avoid this waste stream being sent to landfill (see London Recycles). Donating

items, such as clothing, for reuse by charities or specialist services is a way of reducing waste to landfill and reducing any emissions from waste. Some of the Inns also run work clothing reuse schemes (see Inner Temple). Remember that waste arising from your practice as a barrister is commercial waste and should not be disposed of through household waste collection schemes (see Gov.UK).

I recommend using the relevant conversion factor for the specific waste stream produced and year from DESNZ's GHG Conversion Factors for Company Reporting (DESNZ, 2024). These are adequate for the small quantities of waste being disposed of by a barrister, and the use of more specific conversion factors is unlikely to be proportionate.

Calculation	Source of conversion factors
• Waste emissions	UK Government, Department for Energy Security and Net Zero. GHG Conversion Factors for Company Reporting

Emissions from use of the telecommunication network

Emissions from this source include broadband, mobile data, television, and landline use. Emissions from this source are notoriously challenging to calculate, and the DESNZ does not publish a calculation methodology or conversion factor(s) related to this emission source. To read more on the challenges of calculating emissions from this source, see the IEA's article in response to several articles published by the New York Post, CBC, Yahoo and others about the carbon footprint of watching 30 minutes of Netflix (IEA, 2020).

Emissions from investments, purchased goods, electricity, and gas consumption make up most of the emissions from using the telecommunications network (see this example from Vodafone). Increasingly, UK telecommunication providers are shifting to 100% renewable energy. Whether the emissions for telecommunication providers from investments and purchased goods can be said to have directly arisen from your practice as a barrister is probably open to some scope for interpretation. Infrastructure investment typically proceeds demand, so it is arguable that most of the emissions of network use arise from additional demands placed on network energy consumption. However, as with any carbon calculation, it is better to overaccount and underclaim, than underaccount and overclaim.

My telecommunications use extended to only broadband and mobile data usage provided by Vodafone. Based on the above analysis, I excluded Vodafone's emissions from investments and purchased goods from my assessment. According to Vodafone's annual reports for 2023 and 2024, 100% of electricity consumed by their UK operation was produced by renewable sources (see Vodafone). Vodafone does not publish natural gas consumption data for the data centres serving the UK nor a conversion factor for natural gas consumption per gigabyte of data consumed, so I had to use an alternative calculation method.

Vodafone's ESG addendum provides that emissions from natural gas globally were 0.01 Mt/CO2e. Vodafone reports having 323 million mobile customers globally, with the total number of customers accessing broadband, mobile data, and landline use likely even greater. Even if emissions from natural gas consumption for Vodafone's entire global operation were shared equally amongst its 323 million mobile customers, this works out to emissions of 0.00003 t/CO2e from natural gas consumption per mobile customer per year, an amount less than 1% of my carbon footprint (which ISO 14064-1 permits to be excluded from the assessment as it falls within the category of 'negligible' emissions).

That figure would also need to be reduced further to reflect the percentage of internet usage which arose from my practice as a barrister. I, therefore, recommend that, at present, a barrister does not need to include any emissions associated with their telecommunications usage as it likely falls below 1% of total emissions and is therefore negligible.

Reducing emissions

All barristers have a moral duty to reduce carbon emissions and minimise climate-related harm, loss, and damage caused to current and future generations. Barristers who travel internationally, rely heavily on hotels, are avid car users, and print or dispose of voluminous amounts of documents are likely to have emissions per annum far in excess of my carbon footprint. A few barristers whose practice is largely paperwork-based or with a comparatively local court-based practice may have marginally lower annual emissions than I have reported.

There will normally be steps most barristers can take to reduce their carbon footprint. It is not enough to simply offset current global emissions; we must reduce and offset our emissions to keep global warming under 1.5 degrees Celsius (CCA, 2024). The Bar needs to continue to innovate to find ways of reducing emissions whilst maintaining or improving the quality of the services it provides.

Six key steps to reduce your footprint

There are steps we can all take to reduce the carbon footprint of our practice, and I have identified six that I think will make the biggest difference to a barrister's carbon footprint.

1. Walk more if you are able. Short taxi and bus rides from the train station to the court building add up over time. Not only will your carbon footprint be lower, but walking more can improve cardiovascular health and improve wellbeing.

2. Leave the car in the garage and use public transport where possible. Courts are invariably well situated within walking distance of the train station. Using trains is also safer than being a road user. Better route planning will help you use electric trains where possible and avoid diesel trains. Many towns and cities also offer greener forms of travel, including electric buses, taxis, and scooters.

3. Move chambers and your home electricity and/or gas supplier to a greener tariff. While a 100% green tariff isn't available everywhere in the UK, many suppliers provide 50% and 75% greener tariffs. I moved to a 100% renewable tariff for electricity and gas in August 2024, which was cheaper than my previous tariff.

4. Get up earlier rather than stay overnight where possible. Hotels emit far more CO2e per square meter than most residential spaces. I adjusted my sleep schedule to go to bed earlier to make waking up earlier easier.

5. Go paperless and avoid printing. Printers, printing ink, and paper all have significant supply chain emissions and are energy-intensive to dispose of and/or recycle.

6. Buy preloved clothing or second-hand electronics and donate items, such as old mobile phones, laptops, suits, and shoes, for reuse by clothing retailers and charities to reduce waste disposed of to landfill.

Further reduction steps

- Calculating your carbon footprint will likely lead to you being more cognisant of your emissions, which in turn is likely to lead to reduced emissions.
- Driving an electric vehicle will likely reduce your carbon footprint in the longer term compared to a petrol or diesel vehicle. However, a greater environmental benefit is achieved by reducing the overall use of personal vehicles and increasing the use of public transport.
- Increase your reliance on natural ventilation and reduce reliance on artificial ventilation and cooling systems.
- Reducing or eliminating your reliance on carbon-intensive heat sources, such as wood burning, coal, gas, and oil, by installing a heat pump or moving to a biomass boiler.
- Wearing additional layers of clothing will help reduce the effect of running a lower average household and office temperature in chambers.
- Improve energy efficiency, such as switching to LED lighting, turning lights off when rooms are not in use, running your laptop on eco-mode, and switching off electronic devices when not in use.
- Installing a smart energy meter may help you become more cognisant of your consumption.
- Consider the likely carbon emissions when planning the location of meetings and events and, where it does not impact the quality of service/event provided, choose lower carbon options.
- Moving to a vegetarian-only food supplier or increasing the proportion of vegetarian food purchased and sourcing food for meetings, JSMs, mediations, and chambers events from local suppliers who use locally sourced ingredients.
- Take food and hot/cold drinks with you on long journeys in reusable containers as this reduces waste and typically has a lower carbon footprint than on-demand products.
- Carbon-conscious purchasing from reputable suppliers with high-quality carbon emissions data at a product level reported in the public domain will help you more accurately account for and deliver reductions in your emissions.
- Buy a hemp wig rather than the traditional horse-hair wig.

Offsetting emissions

Once you have reasonably minimised the emissions produced by your practice, you will be left with unabated or residual emissions that should be offset. Barristers will purchase credits from the Voluntary Carbon Marketplace ('VCM') as the quantity of emissions they are seeking to offset in most cases will likely be below 10 t/CO2e and almost certainly below 100 t/CO2e. Comparative to most businesses, that is a very small quantity of emissions to be seeking to offset, which limits which providers in the VCM will accept such a purchase. A useful starting point for understanding offsetting can be found in the Bar Council guidance, which can be accessed via its Sustainability Network webpage (see Bar Council).

Types of carbon credit

There are different kinds of offsets. The Oxford Principles for Net Zero Aligned Carbon Offsetting guidance was revised in 2024 and can be found on the Smith School webpages (see Oxford University). It usefully describes five broad categories of offset (in no particular order of importance):

1. Avoidance or reduction in emissions from the geosphere, such as by deploying renewable energy to replace fossil fuel use or by improving energy efficiency.
2. Avoidance or reduction in emissions from the biosphere by protecting ecosystems, soils and vegetation from damage or degradation.
3. Reduction of emissions from the geosphere by capturing and storing fossil carbon from industrial point sources or fossil-fuelled power stations.
4. Carbon removal to the biosphere by restoring healthy ecosystems (e.g. woodlands, grasslands, wetlands, marine habitats) or enhancing soil carbon or agricultural land.
5. Carbon removal to the geosphere is achieved by extracting GHG from the atmosphere and storing it in the geosphere, such as by direct air capture or remineralisation of atmospheric carbon into rock.

Offsets need to be purchased responsibly and should have a net benefit to the natural environment wherever possible, such as by enhancing biodiversity, improving soil or water quality, or protecting habitats. There may also be other sustainability benefits, such as providing jobs or reducing inequality. The UK Climate Change Committee renewed calls in 2024 for the country to ramp up tree planting and peatland restoration, both important and popular means of delivering carbon credits (CCC, 2024).

Whilst the efficiency of technological solutions for sequestering carbon from the atmosphere is improving, nature-based solutions dominate the carbon credits marketplace,

with the CCC stating that forestry credits made up 42% of the total number of carbon credits sold globally between 2017-2022 (CCC, 2022).

Risk

Purchasing offsets also carries some risk. There is a risk that if the offset project has miscalculated its emission reduction impact, you may be left with a carbon credit certificate, which is worthless. Offset projects range in size from those organised and run by national and international companies to some run by small farmers. Many of these projects do not purchase insurance to cover any loss caused by a miscalculation of the impact of emission reduction (see Oka; CFC) or a natural disasters which may delay the emission reduction profile (see Scottish Woodlands for forest fires).

The better projects publish the underlying data and methodology behind their calculation and make it available before you purchase the credits (see UN Carbon Offset Platform). They also withhold a quantity of credits that act as a buffer in case of any later miscalculation. The best projects are independently assured by an accredited type A or B certification body; however, there are very few of these at present. Unfortunately, my experience has been that few of these projects are accessible to barristers due to the relatively small volumes seeking to be offset.

Several emergent technology companies have tried to move into this space, which I recommend you avoid. Investing through these platforms is made incredibly easy. In most cases, you pick a project, type in the amount of emissions you wish to offset, and make the payment. However, the web pages do not publish the data or methodology behind the calculation, and the logos added to webpages to provide buyers with assurance as to the credit quality provide little assurance when one inspects the criteria used to obtain the use of that logo. In many cases, you are not issued a formal certificate and/or not registered on an appropriate registry, so there is little assurance that credits are being accurately accounted for.

UK schemes

The Woodland Carbon Code ('WCC') is the quality assurance standard for woodland carbon projects in the UK (see WCC). The Peatland Code ('PC') is the quality assurance standard for peatland restoration projects in the UK (see IUCN). Projects under the WCC and PC generate high-integrity and independently verified carbon units and provide various environmental, social, and economic benefits, too. They are also endorsed by the International Carbon Reduction and Offset Alliance (see ICROA). Projects are verified to ISO 14064-5 by a UKAS-accredited verification body every 0, 1, 5 and every 10 years after that. The WCC and PC require project owners to maintain a 15% precision buffer if future scientific developments refine our understanding of how carbon sequestration from woodlands and peatlands operates.

When planting new woodlands or restoring peatlands, the WCC/PC certify Pending Issuance Units ('PIUs'). These are science-backed promises to remove carbon from the atmosphere. When the woodland/peatland has delivered a verifiable reduction in CO2, say 1,000 t/CO2e, the WCC/PC converts 1,000 PIUs into Woodland Carbon Units ('WCUs') / Peatland Carbon Units ('PCUs') as appropriate. You can only claim to have 'offset' the carbon associated with your investment when your PIUs are converted to WCUs.

The UK VCM is still very young (only 10-15 years old). The carbon removal profile of woodland development is not linear, meaning that projects deliver few WCUs in the first 15 years. The bulk of the WCUs are produced between years 25 and 45, and schemes may last between 35-100 years (see Forest Carbon). The carbon removal profile of peatlands is linear, meaning you would expect to see a greater percentage of WCUs produced in the earlier years than woodland projects.

PIUs purchased are recorded on the UK Land Carbon Registry managed by S&P Global as the 'IHS Market Registry'. The registry helps track the origin, ownership, and certification status of a purchaser's investment and prevents the same credit from being bought twice. The registry can be viewed via the Global Carbon Council website (see GCC).

The WCC and PC do not sell credits directly to businesses. Barristers will need to purchase credits via a broker. There is a range of brokers listed as being available on the IUCN website (see IUCN); however, at the time of writing this guide, the only two I could find that would sell PIUs in quantities under 10 t/CO2e per annum had UK projects to invest in, published their project methodology, and were assured by credible assurance schemes were Forest Carbon (see Forest Carbon) and projects listed on the UN Carbon Offset Platform (see UN). I would recommend purchasing credits for 115% of your carbon footprint in case of any recalculation in carbon emissions in the future. Most barristers can offset their footprint for under £250.00 per year.

Assurance

Many barristers I have spoken to about this topic rightly recognise the benefits of reducing and offsetting their carbon footprint and are often surprised that the cost of doing so is not as significant as they perhaps thought. However, I have also witnessed that many barristers have a hesitancy about putting any information in the public domain, which is reinforced when the task requires making a statement about something which not from the barrister's specialist area. Environmental issues are also a topic that can attract attention, something many barristers try to avoid. Solicitor's firms and other companies share these concerns, they are not unique to barristers, but it is fair to say they are less individually exposed.

Firstly, there is no requirement to publish online (or anywhere else) your carbon footprint information as a barrister. Secondly, this guidance should hopefully have answered some of your questions about how to go about calculating, reducing and offsetting your footprint. Thirdly, there are organisations who, for a reasonable fee, can provide assurance that any GHG information you publish about your carbon status, is credible, evidenced, and has been reviewed by an independent third party.

Independent assurance through a verification provided by an independent verification body can provide barristers with additional reassurance that the process adopted and results achieved align with best practices. This can be achieved by undergoing an ISO 14064-1 verification by a reputable verification body. Verification is optional for barristers, but it may help some feel more confident about their carbon data and status.

You can find more information about ISO 14064-1 verification via the British Standard Institution's information guide (see BSI).

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Cautionary note

Whilst considerable care and attention have been paid to the production of this guide, it is a rapidly changing landscape, a new and emergent marketplace for carbon credits, and at the forefront of scientific research and development. Regrettably, it is necessary to say that the author of this guide accepts no liability for any losses arising from reliance on the guidance or the third-party resources shared herein.

Statement of thanks

Thank you to Laurie Wood from the British Standards Institution for providing feedback on the early drafts of the document.

Intellectual property

Annex A: Worked example

GHG Emissions Statement

Barrister: Daniel Jacklin

Published: 30 October 2024

Summary Table

This table provides an example of a summary table for reporting carbon emissions by emission source and calendar month. Figures are reported in t/CO2e.

	Oct-23	Nov-23	Dec-23	Jan-24	Feb-24	Mar-24	Apr-24	May-24	Jun-24	Jul-24	Aug-24	Sep-24	Total
Scope 1: Emissions from sources owned or directly controlled by the barrister													
Emissions from gas consumption	0.00026	0.00026	0.00026	0.00027	0.00027	0.00036	0.00018	0.00036	0.00027	0.00027	0.00020	0.00108	**0.00404**
Emissions from vehicles	0.05101	0.00000	0.03613	0.00000	0.00000	0.05369	0.08622	0.15875	0.00000	0.00000	0.00000	0.06135	**0.44715**
Scope 2: Emissions generated by the purchase of electricity, heat, cooling, or steam													
Emissions from home electricity consumption (location based)	0.00505	0.00526	0.00634	0.00625	0.00567	0.00555	0.00567	0.00609	0.00621	0.00770	0.00506	0.00527	**0.07014**
Emissions from home electricity consumption (market based)	0.00114	0.00118	0.00143	0.00141	0.00128	0.00125	0.00128	0.00137	0.00140	0.00173	0.00114	0.00119	**0.01578**
Scope 3: Emissions arising from sources not owned or directly controlled by the barrister[1]													
Emissions from purchased goods	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00023	0.00070	0.00096	0.00311	0.00000	0.00006	**0.00507**

Emissions from using hotels	0.02080	0.00000	0.00000	0.00000	0.00000	0.00000	0.01040	0.01040	0.02080	0.00000	0.00000	0.01040	**0.07280**
Emissions from electricity transmission loss	0.00002	0.00002	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00002	0.00002	**0.00032**
Emissions from water supply	0.00011	0.00010	0.00011	0.00013	0.00012	0.00010	0.00010	0.00011	0.00011	0.00011	0.00011	0.00011	**0.00131**
Emissions from water transmission loss	0.00003	0.00003	0.00003	0.00004	0.00004	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	0.00003	**0.00040**
Emissions from water treatment	0.00010	0.00009	0.00010	0.00013	0.00012	0.00010	0.00009	0.00011	0.00011	0.00011	0.00011	0.00011	**0.00127**
Emissions from upstream transportation and distribution	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	**0.00000**
Emissions from waste generated by operations	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	**0.00000**
Emissions from business travel	0.02644	0.05733	0.03504	0.03278	0.04014	0.02594	0.10240	0.06877	0.12900	0.12886	0.06116	0.16098	**0.86883**
Emissions from using court buildings	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	0.00000	**0.00000**
Emissions from using chambers	0.01736	0.02403	0.02070	0.02203	0.02120	0.01903	0.00217	0.00100	0.00083	0.00150	0.00050	0.00167	**0.13202**
Total emissions	**0.12119**	**0.08714**	**0.09873**	**0.06167**	**0.06758**	**0.10480**	**0.20753**	**0.24635**	**0.15834**	**0.14174**	**0.06720**	**0.24109**	**1.60335**

[1] Only those scope 3 emission sources likely to be relevant to most barristers have been reported above. The GHG Protocol Scope 3 Guidance lists 15 categories of scope 3 emissions, and if you are concerned that in your own assessment, an emission source may be missing from this list, I recommend you look back at the GHG Protocol Scope 3 Guidance.

Notes

Reporting boundary

Only emissions arising from the barrister's practice during the 12 months of pupillage between 2 October 2023 and 1 October 2024 are reported.

Emissions from gas consumption

Only a proportion of home gas consumption was attributable to my practice as a barrister. Gas was consumed heating water for the shower and taps in the bathroom and kitchen. Although gas also fuelled the central heating system, the system was inactive throughout the material period. A boiling tap provides water for hot drinks, which does not consume gas. Showering is attributable to personal use, not my practice as a barrister. 80% of gas emissions were estimated to be attributable to the heating of shower water. Additional hand washing was deemed attributable to working in my capacity as a barrister from home. Based on 20% or 33.6 hours of home working per week, 4% of gas emissions were attributed to this source. The remaining 16% of gas emissions were attributable to hand washing for personal use.

Conversion factor:	m^3/CO2e per kwh	Source
• Natural gas in 2023	0.2000	UK Government GHG Conversion factors for company reporting 2023
• Natural gas in 2024	0.2026	UK Government GHG Conversion factors for company reporting 2024

From 1 September 2024, my home gas provider was changed to 100Green, which provides 100% of gas from anaerobic digestion, a process verified by The Green Gas Certification Scheme. For a breakdown of the calculation, see Table 1.

Emissions from vehicles

There were occasions when I had to use my work/personal vehicle because a court centre was inaccessible by public transport at the time the hearing was listed. I own and used a Skoda Fabia with verified emissions at 0.110 kg/CO2e per km for these purposes. For a breakdown of the calculation, see Table 2.

Conversion factor:	kg/CO2e per mile	Source
• Skoda Fabia 2018 registration	0.0689	UK Government DVLA Get Vehicle Information

Emissions from home electricity consumption

Only a proportion of home electricity consumption was attributable to my practice as a barrister. This proportion was estimated based on 84 hours of home working per week (50%). It was not proportionate to keep a log of hours actually spent working at home in my practice as a barrister. Electricity use on trains, in hotels, court buildings, or working from chambers was reported separately. Location-based emissions were calculated using the UK DESNZ generation-based conversion of 0.2071 kg/CO2e per kWh in 2023 and 2024. For the period October 2023 to August 2024, market-based emissions were calculated using data from Utility Warehouse, where the relevant emissions factor was 0.0466 kg/CO2e per kWh.

Conversion factor:	kg/CO2e per kwh	Source

• Location-based electricity consumption in 2023	0.2071	UK Government GHG Conversion factors for company reporting 2023
• Location-based electricity consumption in 2024	0.2071	UK Government GHG Conversion factors for company reporting 2024
• Market-based electricity consumption in 2023 and 2024	0.0466	Utility Warehouse
• Market-based electricity consumption from Aug 2024 to Sep 2024	0.0000	100Green

From 1 September 2024, my home electricity supplier was changed to 100Green, which provided 100% of electricity generated from renewable sources, so market-based emissions were recorded as zero. For a breakdown of the calculation, see Table 3.

Emissions from using public transport

This is the largest emission source in this assessment, comprising 43% of emissions. It was proportionate to adopt a conversion factor specific to each rail operator. The UK Government Emissions from journeys across the UK (ENV07) were used for the use of a medium-sized taxi. Each journey undertaken for work as a barrister was itemised. The number of miles travelled is calculated using the LNER or Scot Rail carbon calculators or Google Maps. Where a specific conversion factor for a rail operator was unknown, the National Rail conversion factors for Diesel and Electric trains were used. For a breakdown of the calculation, see Table 4.

Conversion factors:	kg/CO2e per mile	Source
• Avanti West Coast	0.0130	ORR Table 6103 Estimates of normalised passenger CO2e emissions by operator in 2023
• c2c	0.0130	ORR Table 6103 Estimates of normalised passenger CO2e emissions by operator in 2023
• CrossCountry	0.0429	ORR Table 6103 Estimates of normalised passenger CO2e emissions by operator in 2023
• DLR	0.0206	ORR Table 6103 Estimates of normalised passenger CO2e emissions by operator in 2023
• East Midlands Railway	0.0385	ORR Table 6103 Estimates of normalised passenger CO2e emissions by operator in 2023
• Elizabeth Line	0.0106	ORR Table 6103 Estimates of normalised passenger CO2e emissions by operator in 2023
• Eurostar	0.0080	ORR Table 6103 Estimates of normalised passenger CO2e emissions by operator in 2023
• Greater Anglia	0.0149	ORR Table 6103 Estimates of normalised passenger CO2e emissions by operator in 2023
• Great Western Railway	0.0267	ORR Table 6103 Estimates of normalised passenger CO2e emissions by operator in 2023
• Hull Trains	0.0093	ORR Table 6103 Estimates of normalised passenger CO2e emissions by operator in 2023
• London North Eastern Railway	0.0086	ORR Table 6103 Estimates of normalised passenger CO2e emissions by operator in 2023

• London Overground	0.0112	ORR Table 6103 Estimates of normalised passenger CO2e emissions by operator in 2023
• London Underground	0.0251	ORR Table 6103 Estimates of normalised passenger CO2e emissions by operator in 2023
• Merseyrail	0.0149	Merseyrail - About in 2023
• National Rail - Diesel	0.0217	ORR Table 6103 Estimates of normalised passenger CO2e emissions by operator in 2023
• National Rail - Electric	0.0167	ORR Table 6103 Estimates of normalised passenger CO2e emissions by operator in 2023
• Northern	0.0347	ORR Table 6103 Estimates of normalised passenger CO2e emissions by operator in 2023
• South Western Railway	0.0155	ORR Table 6103 Estimates of normalised passenger CO2e emissions by operator in 2023
• Southeastern	0.0180	ORR Table 6103 Estimates of normalised passenger CO2e emissions by operator in 2023
• Southern	0.0130	ORR Table 6103 Estimates of normalised passenger CO2e emissions by operator in 2023
• Regular Taxi	0.2390	UK Government Emissions from journeys across the UK, ENV07
• Thameslink	0.0130	ORR Table 6103 Estimates of normalised passenger CO2e emissions by operator in 2023
• TransPennine Express	0.0279	ORR Table 6103 Estimates of normalised passenger CO2e emissions by operator in 2023
• Tyne and Wear Metro	0.0030	About Nexus - Environment in 2023
• West Midlands Railway	0.0198	ORR Table 6103 Estimates of normalised passenger CO2e emissions by operator in 2023

Emissions from using hotels

17% of emissions were produced by this source. It was proportionate to the quantity of emissions to use the UK Government GHG Conversion factors for company reporting in 2023 and 2024, which was 10.4000 kg/CO2e per night for hotels outside of London and 11.5000 kg/CO2e per night for hotels in London. For a breakdown of the calculation, see Table 5.

Conversion factors:	kg/CO2e per night	Source
• UK hotel room outside of London	10.4000	UK Government GHG Conversion factors for company reporting 2023 and 2024
• UK hotel room in London	11.5000	UK Government GHG Conversion factors for company reporting 2023 and 2024

Emissions from water supply

Water was supplied for showering, drinking, washing clothes, hands and dishes, and for flushing the toilet. Only a proportion of water supplied to my home was attributable to my practice as a barrister, primarily a percentage of water for drinking, washing, and flushing. Water for the shower would have been consumed in any event for personal use. Based on an average of 33.6 hours of home working per week, an estimated 20% of water supplied arose from my practice as a barrister. The UK Government conversion factors for water supply in 2023 and 2024 were used. For a breakdown of the calculation, see Table 6.

Conversion factor:	kg/CO2e per m^3:	Source
• Water supply in 2023	0.1770	UK Government GHG Conversion factors for company reporting 2023
• Water supply in 2024	0.1531	UK Government GHG Conversion factors for company reporting 2024

Emissions from water transmission loss

According to Anglian Water's Annual Performance Reports, it supplied 375,589.7 Ml of potable water in 2023 and 365,149.6 Ml in 2024. The same reports provide that Anglian Water produced leakage of 66,466.5 Ml in 2023/24. Consequently, 17.7% of the potable water Anglian Water supplied in 2023 was lost to leakage and 18.2% in 2024. The total water supplied to my home was reduced by based on that which was attributable to my practice as a barrister. This reduction was based on an average of 33.6 hours of home working per week. Consequently, 20% of the water supplied to my property arose from my practice as a barrister. Therefore, 3.54% of the water supplied to my property that arose from my practice as a barrister, all of which was potable, arose because of water leakage and 3.64% in 2024. There is no UK Government conversion factor for water transmission, and the industry is grappling at an international level to produce a conversion factor methodology. As the emissions associated with water leakage arise from their supply and treatment, 50% of the conversion factor for water supply (to reflect leaked water not arriving at the property) and 100% of the water treatment conversion factor were added together to produce a water transmission conversion factor. For a breakdown of the calculation, see Table 6.

Conversion factor:	kg/CO2e per m^3:	Source
• Water transmission loss in 2023	0.2895	UK Government GHG Conversion factors for company reporting 2023
• Water transmission loss in 2024	0.2623	UK Government GHG Conversion factors for company reporting 2024

Emissions from water treatment

According to Anglian Water, 90% of water supplied is assumed to require treatment. Only a proportion of home water supplied required treatment because of my practice as a barrister. Based on an average of 33.6 hours of home working per week, an estimated 20% of water supplied arose from my practice as a barrister. Therefore, 18% of water treated arose from my practice as a barrister. The UK Government conversion factors for water treatment in 2023 and 2024 were used. For a breakdown of the calculation, see Table 6.

Conversion factor:	kg/CO2e per m^3:	Source
• Water treatment in 2023	0.2010	UK Government GHG Conversion factors for company reporting 2023
• Water treatment in 2024	0.1857	UK Government GHG Conversion factors for company reporting 2024

Emissions from home electricity transmission loss

National Grid reported in their Annual Environmental Report for 2023 that 2.51% of electricity supplied is lost during transmission. Only a proportion of home electricity transmission loss was attributable to my practise as a barrister. Based on an average of 33.6 hours of home working per week, 20% of home electricity supplied was used for home working. Between October 2023 and August 2024, 11.2% of the electricity supplied was from renewable sources. Only electricity transmission loss from fossil fuel sources was included. Therefore, only 1.0224% of home electricity supplied and was lost in transmission was caused by my practice as a barrister. For a breakdown of the calculation, see Table 3.

Conversion factors:	kg/CO2e per kWh:	Sources:
• Electricity transmission loss in 2023	0.0179	UK Government GHG Conversion factors for company reporting 2023
• Electricity transmission loss in 2024	0.0183	UK Government GHG Conversion factors for company reporting 2024

From 1 September 2024, my home electricity supplier was changed to 100Green, which provided 100% of electricity generated from renewable sources.

Emissions from using court buildings

It was not possible to reliably and accurately quantify emissions produced by using court buildings. These should be assessed and reported by HM Court and Tribunal Service in their annual update. The quantity of emissions due to the few hours per week spent using court buildings was deemed to be negligible. No report of emissions from using court buildings is made.

Emissions from using chambers

Most of my work is done from home. Most of my work from chambers took place in my first six. All of my work in chambers arises from my practice as a barrister. There was no accurate and reliable method of calculating emissions from working in chambers. A proxy was used to represent some emissions. The best proxy available was the 'homeworking' conversion factor provided by the UK Government for 2023 and 2024. Emissions from chambers when working elsewhere were deemed to be negligible and were not reported. This would be reported in chambers own GHG emissions report in its annual update in any event. A list of dates and the hours spent working in chambers was maintained to facilitate the calculation of emissions using the home working conversion factor. For a breakdown of the calculation, see Table 7.

Conversion factor:	kg/CO2e per hour	Sources:
• Working from chambers in 2023	0.3338	UK Government GHG Conversion factors for company reporting 2023
• Working from chambers in 2024	0.3338	UK Government GHG Conversion factors for company reporting 2024

Emissions from purchased goods

Goods purchased in the material period consist only of paper for printing. The barrister operates a primarily paperless practice. However, occasional printing does occur. The UK Government conversion factor for paper is 910.48 kg/CO2e per tonne of paper in 2023 and 1,339.32 kg/CO2e per tonne in 2024. According to Amazon, a pack of 500 sheets of Amazon Basics paper weighs 2.5 kg. Therefore, the appropriate conversion factor is 0.0046 in 2023 and 0.0067 in 2024. No other goods were purchased during the reference period. For a breakdown of the calculation, see Table 8.

Conversion factors:	kg/CO2e per page:	Sources:
• Paper in 2023	0.0046	UK Government GHG Conversion factors for company reporting 2023
• Paper in 2024	0.0067	UK Government GHG Conversion factors for company reporting 2024

Emissions from waste disposal

No waste arising from my practice was sent to landfill during the reference period.

Emissions from use of the telecommunications network

Emissions included the use of broadband and mobile data from telecommunications provided by Vodafone. There is no recognised methodology for calculating carbon emissions from consumer telecommunication usage. 100% of the electricity used by Vodafone UK in 2023 and 2024 was produced from renewable sources. Vodafone's ESG addendum provides that emissions from natural gas globally were 0.01 Mt/CO2e. Vodafone reports having 323 million mobile customers globally, with the total number of customers accessing broadband, mobile data, and landline use likely even greater. Even if emissions from natural gas consumption for Vodafone's entire global operation were shared equally amongst its 323 million mobile customers, this works out to emissions of 0.00003 t/CO2e from natural gas consumption per mobile customer per year, an amount less than 1% of my carbon footprint (which ISO 14064-1 permits to be excluded from the assessment as it falls within the category of 'negligible' emissions). That figure would also need to be reduced further to reflect the percentage of internet usage which arose from my practice as a barrister. Emissions from the use of the telecommunications network were assessed to be negligible.

NB: The tables referred to in the above notes have not been included in this guidance due to their size.