

Introduction.

The UK Government has made a commitment to becoming Net Zero by 2050 at the latest.
The legal sector plays an important role in meeting this target, so it is essential that law firms take action to measure and reduce their carbon footprint. Plenty of good work has already been done to combat the key emissions sources within the value chain, but these have not yet been brought together into a coherent and comprehensive guide.

Net Zero Now helps to mitigate emissions simply, effectively and affordably by providing a straightforward path to Net Zero. Carbon solutions may seem complex and challenging, but all recommendations in this guide are designed to be achievable, allowing businesses to benefit their customers, the economy and the planet alike.

A focus on efficiency is not only great for cutting emissions, but also improves the bottom line - by cutting core expenses you can increase profitability without increasing sales revenue. Win-win. Likewise, building environmental criteria into supplier selection can bring new opportunities to your attention, while promoting low carbon staff travel can also improve employee welfare.

After working out how carbon intensive your business currently is, you can start to implement specific and effective mitigation strategies. This guide outlines these steps towards reducing your emissions, ultimately saving money and forming a successful net zero business.



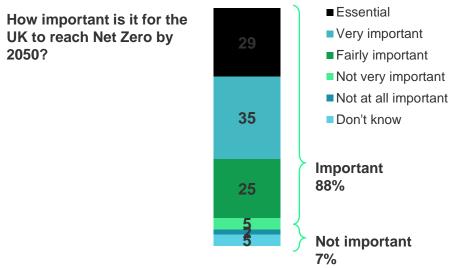
 $^{1.\ \}underline{\text{https://www.gov.uk/government/news/uk-becomes-first-major-economy-to-pass-net-zero-emissions-law}$

Why should I care?

With all the time-sensitive challenges that come with operating a law firm, it is easy to understand how addressing Net Zero can get pushed down the list of work to be done.

Between balancing the budget, finding staff, staying on top of client's needs and the multitude of other administrative tasks, it is worth asking the question - why should I care about becoming Net Zero?

- The UK government have made a strong commitment to Net Zero, so they will be looking to every industry to do their part. That means that law firms will be required to reduce their emissions, either through support or through possible regulation that penalizes businesses for not doing enough. The Department for Business, Energy and Industrial Strategy (BEIS) have created a Net Zero SME working group that aims to raise awareness of Net Zero targets and encourage action. Similarly, the government has stated that they will be looking to help businesses to be a central part in positive economic revival, bouncing back stronger and greener.²
- There is now a wealth of information, research and anecdotal evidence that has found that reducing your carbon footprint can save your business money. Between reducing your energy bill, getting more from your equipment and appliances, and attracting new environmentally-conscious customers, working towards Net Zero can improve your business while contributing positively.
- Customers are demanding it of people who have heard of Net Zero, 88% think that it is essential that the UK meet this target.3 Younger generations in particular see reducing the impacts of climate change as a significant and important challenge, and see Net Zero as a key part of that strategy.4



Source: https://energysavingtrust.org.uk/wp-content/uploads/2021/05/Net-Zero-Consumer-Research_Energy-Saving-Trust.pdf

^{2.} https://www.foodmadegood.org/hospitality-central-to-helping-uk-reach-net-zero-targets-says-minister/

^{3.} https://energysavingtrust.org.uk/what-do-your-customers-think-about-net-zero/
4. https://energysavingtrust.org.uk/wp-content/uploads/2021/05/Net-Zero-Consumer-Research_Energy-Saving-Trust.pdf

Measuring for success.

Calculating emissions can seem like a daunting task at first, but the team at Net Zero Now have created a practical tool to help you which can be found at **www.netzero.org**.

The actions below are a great place to start to lay the foundation for an effective net zero strategy.

1. Start with data

As experts in climate strategy, we recommend that reduction activities are evidence-based, using insights derived from robust and effective best practice measures. Without a clear understanding of which parts of your businesses have the greatest climate impact, it is difficult to know where to focus attention or whether action you've already taken has been effective. It is only through careful measurement that a proper plan can be established, priorities identified, targets set and progress towards meeting them tracked. Regular collection of data will also allow you to set reduction goals and see progress towards achieving them, providing a sense of success to the team.

2. Share enthusiasm and systematize processes

Employees take their cues from management and need to know that this is a core business value and a key focus area. By sharing your enthusiasm for addressing the climate challenge with all staff, you can empower them to see their job through the climate lens. Building climate impact considerations into everyday processes systematizes this approach. For example, providing on site training will see managers and senior staff engage more with Net Zero, which will naturally trickle down to all staff. Similarly, informing all employees about the importance of such measures will ensure that everyone has the right tools to contribute and demonstrate your commitment to becoming Net Zero.

3. Maximise value

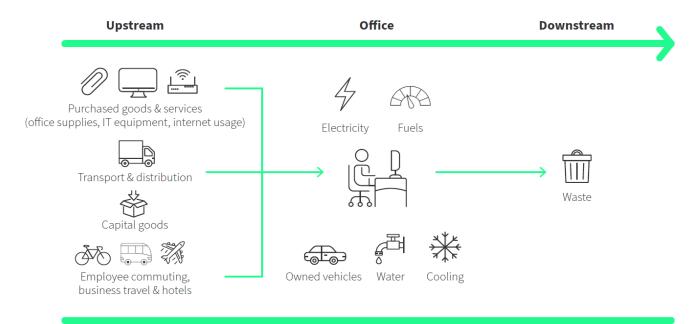
While some activities will improve efficiency and cut costs, there may be some investment required for others. The UK Government provide a range of funding that will help industries reduce their carbon emissions. See for example this source here. Getting funding for infrastructure can help offset initial costs, while saving your business money in the long term.

It is also important to leverage client engagement by communicating with them about your Net Zero initiatives - clients are being more carbon-savvy and are increasingly looking to work with companies that are acting sustainably. Small steps such as removing paper or encouraging a cycle to work scheme can have significant knock-on benefits through future behaviour change, which demonstrate your commitment to Net Zero. Engage with the community and collaborate with other Net Zero businesses - by communicating with other businesses on the same sustainability journey, you can share ideas and trial solutions. It is very difficult for one single person or business to have all the answers, so collaborating with others is a fantastic way to get the best information and practices.

Measuring for success.

When considering the emissions of your company, it is important to consider not just your onsite impact, but also upstream and downstream emissions. The diagram below demonstrates the different types of emissions a typical law firm might create.

Professional Services Emission Sources



Source: Net Zero Now, Net Zero Protocol, 2022



This guide covers nine of the core operational themes of running a law firm in the UK:



1. Building materials and fitouts



2. Heating and cooling



3. Lighting



4. Purchased goods and services



5. Capital Goods



6. Travel and Transportation



7. Electricity generation



8. Water



9. Waste and recycling

Across each of these themes, this guide will provide you with an overview of the theme and why it's important, practical actions that can be taken, and case studies of best practice in the legal industry.

All aspects, practical actions and case studies have been researched with barriers to implementing energy efficiency in mind. Our goal is to avoid lofty aspirational thinking, but instead to consider common barriers and provide sensible and achievable actions that can be taken by law firms in the UK.



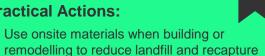
1. Building materials and fitouts

Building materials have a significant impact on how energy efficient your venue is. It is estimated that up to 60% of heat in a typical building is lost through walls, floors, roofs and windows⁵. This is particularly the case in the UK where a lot of businesses occupy older buildings that have poor insulation, and little draught or damp proofing.

Investment in improving your building's use of energy and resources can not only help to reduce operating costs and improve comfort for staff and guests, but also increase the value of the building itself and make it more attractive to future investors.

Practical Actions:

embedded carbon.



- Rent furniture made from recycled or low carbon materials, instead of purchasing directly.
- Choose highly-insulating building materials to lower energy costs.
- Swap your light bulbs to lower energy alternatives, such as LEDs.

Case Studies:

- Co-working space: Second Home offer companies an eco-friendly building which uses 100% green energy and sustainable materials throughout. It also reuses old buildings where possible, and each space contains thousands of plants to purify the office air⁶.
- Bloomberg's HQ harvests rainwater to reduce water consumption by 73%, saving 35% in energy use. The building also utilises waste products and recycles heat and power, which is expected to save 500-750 tonnes of CO2e7.



2. Heating and cooling

Heating and hot water systems are essential for every office building and can account for up to 40% of total energy costs. Simple measures can be adopted to drastically improve efficiency, such as using electronic timer switches or cleaning your ventilation system. Maintaining energy systems can identify leaks and avoid large scale loss of gas, plus your equipment will last longer so will not need to be replaced as quickly. The energy savings far outstrip the costs, so it is worth the regular investment. Check out the heating, ventilation and cooling guide from the Carbon Trust.

Practical Actions:



- Air conditioning review leaks and gas types to identify inefficiencies and preempt problems. Also, look for more energy efficient systems when replacing units, as low-carbon technologies are becoming more costeffective.
- Insulation and windows conduct a heating assessment to see where energy efficient opportunities lie. Drafts can increase the heating energy requirement by 10-20%, so proper insulation is crucial to avoid heat, money and emissions literally flying out the window.
- Heat pumps these can be a safer and more efficient form and of heating than gas boilers, and can be integrated into existing hot water systems seamlessly.
- Gas boiler efficiency maintaining clean boiler pipes cleaned ensures the system is running efficiently. Well serviced boilers can reduce your operating costs by up to 5% per year.
- 5. https://www.yuenergy.co.uk/news/energy-saving-hospitality-business-guide#ventilation-%20air-conditioning
- https://www.pilcher.london/news/sustainable-offices-in-london/
- 7. https://www.bloomberg.com/company/press/bloomberg-most-sustainable-office-building/



3. Lighting

Lighting is an important aspect of any office, so it is important to utilise the most cost effective and energy efficient option. The Carbon Trust has created an extensive guide for lighting efficiency that can be found here. The guide demonstrates that LED lighting has a vastly longer life that other lighting alternatives, and a higher efficiency rate.

Practical Actions:



- The simplest way to reduce lighting costs and emissions is to establish a 'lights off' policy for your staff to follow to avoid unnecessary electricity use
- Switching light bulbs to LED is a great way to reduce your carbon emissions and energy bills. LED lights are 80% more efficient and last longer than incandescent bulbs.
- Security lights are designed to provide a lot of light and can be very high energy consumers: A single 500W halogen light used for 6 hours per night will produce around 1/3 ton of CO2e per year and cost over £100 in electricity. An LED light of equivalent brightness would cost £10 to run and produce 30kg of CO2e.
- Putting lighting on a motion-sensor in places like bathrooms, storerooms or conference rooms is a great way to ensure lights are only on when being used.

Case Studies:

The Carbon Trust worked with a Leisure / Charity Centre to improve their lighting systems¹². The Centre is now set up to save £2,818 every year in energy savings alone. See the project summary below:





4. Purchased goods and services

Company goods and services have a significant impact on our total emissions. Between Office supplies, internet usage, printing, furniture and cleaning products, there are lots of opportunities to work towards Net Zero.

Office furniture impacts your company greenhouse gas emissions. Buying just 10 desk chairs and a sofa is equivalent to releasing almost 1 tonne of CO2e. Furthermore, around 8.5 millions tons of office furniture and tech gets dumped into landfills each year. A lot of this will end up overseas and pollute landfills, the ocean and leak toxic chemicals like lead, mercury and cadmium. It is also a waste of valuable materials that could have been recycled.8

ltem	Estimated Average Carbon Footprint (kgC02e)	Equivalent Gallons of Gasoline Consumed 1kg = 0,133 Gallons	Equivalent Miles Driven by an Average Passenger Vehicle 1kg = 2,4 Miles
	90	10.1	220.0
-	88	9.9	215.0
- 🖣	72	8.1	176.0
	48	5.4	117.0
	43	4.8	105.0
	35	3.9	85.6
	31	3.5	75.8
R	27	3.0	66.0
/	25	2.8	61.1
	18	2.0	44.0
TYT	17	1.9	41.6

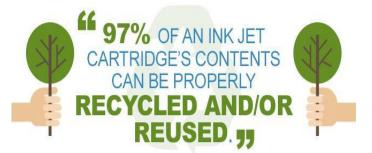
http://www.healthyworkstations.com/resources/Environment/FIRA.CarbonFootprint.pdf

Practical Actions:



Furniture

- Buy your furniture from an environmentally friendly supplier that uses recyclable materials.
- Plan for how you are going to dispose of your furniture in a way that avoids landfill.
- Lease your office furniture, rather than buying. This way you do not need to worry about maintenance or end of life costs and it will be used for longer and properly cared



http://blog.inkjetsuperstore.com/2017/06/environmental-benefits-recycling-ink-cartridges/

Printing is a huge carbon contribution. In the UK, 45 million non-biodegradable ink cartridges are thrown away each year. Some of the materials can take up to 1,000 years to fully decompose and the residual ink and other chemicals slowly leak into the soil and pollute the environment.9

Practical Actions:

Printing

- Recycle your ink cartridges, they can be re-filled and reused, reducing the environmental impact by 46%.
- A lot of printer providers have schemes that monitor how much you print and can provide replacement cartridges as and when they are needed. This helps to avoid unnecessary purchases.



4. Purchased goods and services

Paper is a considerable carbon contribution, as the average office worker uses 10,000 sheets of copy paper every year. Roughly two-thirds of that ends up wasted¹⁰. There are many reasons for this; printing emails unnecessarily, printing duplicates, leaving documents in the tray, etc. It takes around 5 litres of water to produce just one sheet of A4 paper, so each employee is using around 50,000 litres of water per year on paper. Even a company of just 10 employees could be responsible for an additional half a million litres of water being used to make paper every year¹¹.

Practical Actions:



Paper

- Go Digital! Promote digital tools to your employees, instead of using paper. This may be for simple day to day activities, such as note taking, through to emailing documents to clients.
- Recycle your used paper. This may not reduce your usage, but at least the paper itself is being reused, rather than end up in landfill.
- Introduce printing quotas to ensure employees 'Think before they print'.

Case Study:

Citigoup determined that if each employee used double-sided copying to conserve just one sheet of paper each week, the firm would save around \$860,000 each year¹².

Cloud Services

Global data centres consume approximately 1.4% of global electricity use. Since 2010, the number of internet users worldwide has doubled, with global internet traffic increasing even faster, at around 30% per year. Cloud services can support your law firm to become more sustainable, efficient and cost-effective as vendors have more control of their servers by way of usage rates, scalability and resource provision.

The top three cloud providers, Amazon Web Services (AWS), Google Cloud and Microsoft Azure, account for roughly two-thirds of all rentable computing services. Large efforts are being made by cloud providers to power their facilities using 100% renewable energy.

If you are looking to move to a cloud service provider, make sure you choose one already powered by 100% renewable energy. If you are already using a cloud provider, check to see if they are powered by 100% renewable energy and if not, consider moving to a cloud provider that is.

^{10.} https://www.restore.co.uk/Digital/Insights/Blogs/paperless-office-paper-waste-statistics-for-the-average-uk-office

^{1.} https://geerings.co.uk/blog/the-real-figures-of-paper-usage-in-the-uk/ 12. http://www.responsiblepurchasing.org/UserFiles/File/Paper/EDFandCitigroup CopyThis 2004.pdf



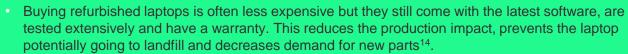
5. Capital Goods

Offices are typically full of electrical equipment, whether it's computers, monitors, TVs or printers, each of these can have a substantial carbon footprint.

Laptops are an energy intensive process to make, both from the materials used and the manufacturing itself. Most sources agree that over 200kg CO₂e is produced to make a single laptop. China manufactures nearly 70% of global laptops, with the materials coming all over the world; cobalt from Congo, Silver from Peru, the list goes on. The mining process itself for precious metals is highly intensive itself, often resulting in huge amounts of land being cleared, which releases CO₂¹³.

Practical Actions:

Laptops



- Similarly, leasing your laptops from a 3rd party will reduce your upfront costs and move all maintenance and replacement requirements on to your provider.
- Ensuring laptops are disposed of correctly at the end of their life. Either through proper recycling channels or even allowing them to be remanufactured and used again.



6. Transportation

In the UK, transportation is the biggest contributor of carbon emissions, accounting for up to 34%¹⁵. Considering what transportation is associated with your business can help reduce upstream and downstream emissions. For example, how employees travel to and from work is important; driving to work is the largest contributor and often public transport options are more practical. Another key area is business travel which represents a shocking 2% of annual greenhouse gas emissions each year¹⁶, 90% of which comes from business flights.¹⁷

Practical Actions:

Employees & Clients

- Encourage active transport from staff with ride to work schemes (Ride to Work scheme can save employees between 29-35% on new bikes: www.cyclescheme.co.uk), bike storage or lockers on site.
- Use virtual conferencing technology to increase virtual meetings. If the pandemic has shown us anything, it's that businesses can operate with reduced business travel.

Case Studies:

Around 180,000 people a year participate in the Cycle to Work scheme. It not only provides a cheap alternative to getting to work, but its users save 133,442 tonnes of CO₂e /year¹⁸, as well as improving the health and mood of staff.19

Shoosmiths law firm are on track to reach net zero emissions by 2025, and have supported the Cycle to Work scheme since 2007. Furthermore, they have implemented various networks to ensure that their environmental policy is communicated across the entire firm, educating and encouraging the company individuals to take a stand.

^{13.} https://www.cashforcartridges.co.uk/news-category/the-impact-of-ink-cartridges-on-the-environment

^{14.} https://www.recompute.com.au/blog/top-5-environmental-benefits-of-buying-refurbished-computers/

^{15.} https://travel.zeelo.co/9-ways-to-reduce-your-workplace-carbon-footprint/
16. https://www.fastcompany.com/90632762/its-time-to-reassess-the-role-of-business-travel-in-global-warming

^{17.} https://www.reuters.com/business/aerospace-defense/corporate-business-travel-carbon-budgets-loom-airlines-2021-10-10/18. https://employeebenefits.co.uk/issues/april-2012-online/top-10-reasons-to-introduce-a-bikes-for-work-scheme/

^{19.} https://www.northsomersettimes.co.uk/news/clevedon-pub-owner-delivers-beer-bike-7811446



7. Electricity generation

The way in which electricity is generated will make a large difference to your carbon footprint. Using renewable energy is becoming more widespread and it is estimated that around 1 in 3 businesses now produce some of their own electricity on site²⁰.

Practical Actions:



- Switch to a supplier that offers renewable electricity sources like solar, wind or hydro. Opus Energy currently provides 355,000 businesses in the UK with renewable energy.
- Consider options for onsite energy generation through solar PV, solar hot water, wind, or geothermal - by investing in renewable energy infrastructure, it can mean more stable cost of supply, lower operating costs and even create the opportunity to sell energy back to the grid.²¹

Case Studies:

The Legal Renewables Initiative (LRI)

Leading law firms across the UK have already joined this project to reach 100% renewable energy by 2025. The LRI asks members to make a commitment to switching their UK offices to certified renewable energy, supported by Good Energy. These firms have been successful in taking a stand and meeting their Net Zero goals.



8. Water

Although water is not often associated with carbon, the way water is used and served can have vast implications for emissions. Even tap water has embedded carbon. Waste-water treatment facilities use large amounts of energy to provide clean drinking water to the UK. Luckily, the water industry in the UK is one of the most progressive for carbon reduction targets and has made a commitment to become Net Zero by 2030.²² Simple efforts like setting the correct temperature for hot water can reduce electricity costs and consumption.

Practical Actions:



- Set specific reduction targets, such as leaks a single one drip per second leak will cost £20 per year
- Urinals/toilets installing waterless urinals and low flush toilets save on water and carbon emissions.
- Use filtered water systems over purchasing bottled water, this will save the carbon embedded in the bottle, delivery and refrigeration needs.

Case Study:

In 2019, Coca-Cola Europacific Partners (CCEP)'s GLACEAU Smartwater became the first UK bottled water range made from 100% recycled plastic (rPET). They also use 100% renewable energy at CCEP's site in Morpeth, significantly reducing its carbon footprint. Last year, in partnership with The Coca-Cola Company, CCEP replenished 275% of the water used in areas of water scarcity near its sites and continued to manage 15 community-based water replenishment projects in Western Europe.²³

^{20. &}lt;a href="https://www.alphr.com/energy/1010075/third-of-uk-businesses-generating-renewable-energy/">https://www.alphr.com/energy/1010075/third-of-uk-businesses-generating-renewable-energy/
21. https://www.gov.uk/government/publications/smart-export-guarantee-seg-earn-money-for-exporting-the-renewable-electricity-you-have-generated

^{22.} https://www.water.org.uk/news-item/water-industry-plans-to-reach-net-zero-carbon-by-2030/ 23. https://www.cocacolaep.com/media/news/2021/2020-stakeholder-report/



9. Waste Prevention and Recycling

Office waste is one of the most significant contributors to emission as it can end up in landfill, release gasses and harmful chemical toxins. The UK commercial and industrial sectors generated 43.9 million tonnes of waste in 2018, approximately 19% of the UK's total waste²⁴. Of this approximately 50% is recycled and recovered, which means that 20 million tonnes of office waste still ends up in land fill, the ocean or incinerated.



Source: https://www.roadrunnerwm.com/blog/office-worker-waste-generation

There are more and more innovations in creating circular systems, where products are not simply put into landfill, but are instead inserted back into the system and have great ongoing value. For example, as mentioned previously, refilling ink cartridges or refurbishing computers and furniture.

Practical Actions:



- Depending on the size of your business you may want to consider moving to a dedicated waste collection service. The service will ensure all your waste is collected but often they will provide the various bins you will need. A more efficient waste management system will often save you money in the process as well as set a better example for your employees, customers or clients.
- Some simple things you can do are; purchase in bulk where possible, have clear recycling policies, provide purified drinking water and promote reusable drinking bottles, move to more eco-friendly suppliers.