Nottingham Trent University

European Union
European Regional Development Fund

Sustainability in Enterprise

Environmental and Carbon Assessment Report

Company: Cockburn Lucas Independent Financial Consulting Limited
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This programme is funded by the European Regional Development Fund (ERDF). ERDF helps local areas to stimulate their economic development by investing in projects which will support innovation, businesses, create jobs and local community regenerations

Contents

1. Executive Summary

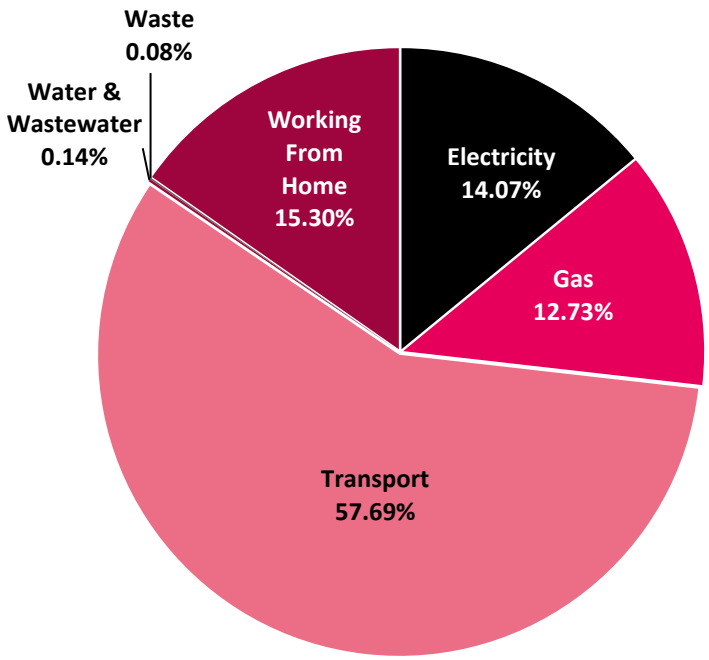
The following report has been prepared by Nottingham Trent University's Sustainability Team as part of the ERDF Sustainability in Enterprise programme. The information contained in this report and recommendations form part of the funded consultancy support offered to eligible SMEs to help reduce their operational carbon emissions and improve environmental performance. The report is based on an initial Environmental and Carbon Assessment meeting and site visit carried out with Cockburn Lucas Independent Financial Consulting Limited (Cockburn Lucas) on Monday 7th November 2022.

Cockburn Lucas have been providing individuals and businesses across the East Midlands with high-quality, reliable and fully independent financial planning advice since 1997. Having recently launched a sustainability plan, they are looking for support in calculating their baseline carbon footprint and embedding their strategy in the form of an action plan.

Baseline Carbon Footprint

The following information provides a summary of the carbon emission baseline for operations for an estimated standard year, using data gathered from 2021 and 2022. Data was provided by Cockburn Lucas and through observations during the site visit. For any areas where data was incomplete, estimates have been made in consultation with Cockburn Lucas based on operational assumptions and industry averages. Full details of carbon emissions categorised by scopes, along with sources of data and any assumptions are in the appendix.

Baseline Carbon Emissions (tCO_2e)



Total Emissions (tCO_2e)	
Electricity	6.11
Gas	5.53
Transport	25.04
Water & Wastewater	0.06
Waste	0.03
Working From Home	6.64
Total	**43.41**

Key recommendations for reducing carbon emissions

Cockburn Lucas' total carbon emissions associated with estimated annual business operations has been calculated at **43.41 tCO_2e for a standard year**, using data from 2021 and 2022**.** More details about the methodology and carbon conversion factors can be found in the appendix.

Cockburn Lucas currently lease their premises and as such implementing recommendations related to invasive building and/or heating upgrades may not be possible without commitment from the landlord. However, the full range of recommendations are included in this report to demonstrate potential carbon savings, to support making business cases for change and in case circumstances change in the future.

The top five recommendations for carbon reduction have been identified based on what would be the most impactful and the most realistic to implement. The full list of carbon and environmental recommendations is provided in Section 10 and further details are provided within the report.

	Recommendation	Carbon Saved per year
1	Switch to or verify a Green Energy Tariff	**6.11**
2	Install energy efficient LED lighting upgrades	**0.67**
3	Set up manual heating control systems	**0.55**
4	Install reflective insulating radiator panels	**0.55**
5	Run an energy-based Employee Engagement Campaign	**0.31**

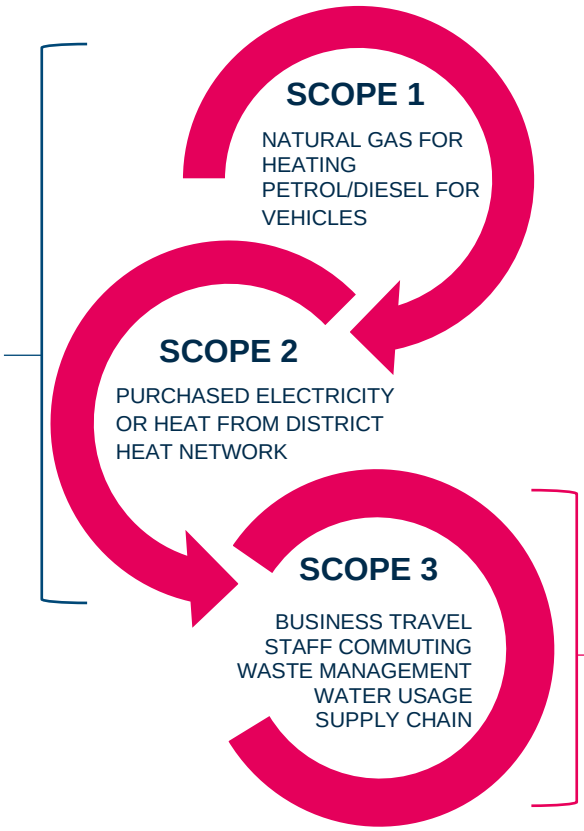
2. Sustainability Overview

Climate change is one of the biggest global catastrophes facing the modern world. Without drastic action to reduce 'business as normal' carbon emissions worldwide, the increasingly severe effects will cause irreversible environmental degradation and harm to human health. The UK has addressed this by setting a target to be *at least* Net Zero Carbon by 2050. Nottingham Trent University has set Net Zero Carbon by 2040 as an institutional target and Nottingham City Council has committed to be Carbon Neutral by 2028. Net Zero Carbon means that a business is emitting less carbon than it is helping to eliminate. This is achieved by reducing the business carbon footprint as much as possible and then working to offset any unavoidable emissions. Every person and business need to do their bit to make ambitious reductions as soon as possible.

Carbon footprint assessments are a useful tool to view the entire picture of a business' environmental performance. It enables easy identification of high emittance areas and better planning of investment and interventions. Creating a carbon baseline also allows monitoring of performance improvements in the future. This report measures carbon impact in tons of CO_2e. This stands for carbon dioxide equivalents and is the standard way of measuring greenhouse gases in a common unit e.*g. methane is 25x more potent than carbon dioxide, so 1 tonne's worth is written as 25tCO_2e.* Business carbon emissions are split into scopes:

Scope 1 (direct) & Scope 2 (indirect) emissions are often reported together and are primarily associated with an organisation's energy usage including:

- direct energy (burned on site)
- indirect energy (purchased and supplied)



Scope 3 (indirect) emissions arise from sources that are outside an organisation's direct control but that are associated with its activities.

Scope information based on GHG Protocol Corporate Accounting and Reporting Standard.

This report covers scope 1 & 2 emissions and partial scope 3 emissions. It is important to note that not all areas have been included, namely the emissions associated with supply chain, as these often comprise a high proportion of Scope 3 emissions.

Sustainability Strategy

To help ensure continuous improvement in line with the UK Government Net Zero target, Cockburn Lucas could consider signing the SME Climate Commitment which is an internationally recognised climate commitment aligned with the latest climate science. Businesses that make the SME Climate Commitment agree to start taking action immediately toward three core aims: halving emissions before 2030; achieving net zero emissions before 2050 and disclosing annual progress. This report supports taking immediate action by measuring and estimating current greenhouse gas emissions and suggesting actions to reduce key emission sources. Once the Commitment has been signed, businesses will get access to the SME Climate Hub, this tools library is continually updated for more effective and comprehensive climate education, measurement and reporting.

3. Energy

Findings Summary	
Electricity consumption per year (kWh)	23,352
Electricity spend per year (£)	£1,912.77
Annual carbon emissions for electricity (tCO_2e)	6.11
Energy comprises % of total carbon emissions	14.07%

Recommendations

The UK Government's **Heating and Building Strategy** outlines upcoming changes to the Energy Efficiency (Private Rented Property) (England and Wales) Regulations 2015 (SI 2015/962). From 1st April 2023, it will be an offence to continue to let a property with an EPC rating below an E, even if there is no change in tenancy. The intention is to **raise the minimum EPC rating from E to C rating** from 1st April 2027, and then to raise this further to a **B rating by 2030**. It is proposed that this will require owners and tenants of buildings >1000m^2 to publicly disclose annual ratings of actual energy performance, therefore investment in energy performance is key in the coming years.

Rc1. Switch to or verify a Green Energy Tariff

Switching to a 100% renewable energy supplier is one of the easiest and cheapest ways to make a significant impact on a carbon footprint. If 100% of electricity is supplied through a verified Green Tariff this would reduce Cockburn Lucas' net carbon emissions by **6.11 tCO_2e per year.**

Total Emissions (tCO_2e)	
Electricity	6.11
Gas	5.53
Transport	25.04
Water & Wastewater	0.06
Waste	0.03
Working From Home	6.64
Gross Emissions	**43.41**
- Renewable Electricity Tariff	*- 6.11*
Net Emissions	**37.31**

It is best practice to display both gross and net carbon emissions alongside one another when publicly reporting on emissions or progress towards net zero targets. UK Government guidance states that you must check the supplier meets green tariff criteria and that you must receive REGO (Renewable Energy Guarantee of Origin) certificates from your supplier to ensure transparency that they source from renewable generation.

Rc2. Install energy efficient LED lighting upgrades

Cockburn Lucas has installed energy efficient lighting in parts of the business, however there are further opportunities for upgrading to energy efficient lighting as summarised below. In addition to being more energy efficient, LED bulbs typically have a longer life span which can further reduce the amount of labour and costs associated with replacing bulbs.

The EU will be banning many fluorescent lamps from the market in August 2023 as part of the **'Restriction of the use of Hazardous Substances Directive'**. The same regulations are also part of UK law, but dates have not yet been confirmed. The UK is also restricting the use of some lighting based on their efficiency as part of new **'Ecodesign for Energy-Related Products and Energy Information (Lighting Products) Regulations'**. These upcoming changes are thought to mainly affect T12 and T8 type lamps and therefore should be factored into any decisions around lighting upgrades.

Methodology	Typical Costs	Cost saving	Carbon Saving
Upgrade all lighting to LEDs	Variable – Quote required.	Save up to 65% of lighting energy costs. **Estimated £211 savings per year.**	Save up to 65% on lighting associated emissions. **Estimated 0.67 tCO_2e savings per year.**

1. *It is estimated that current lighting accounts for 17% of total energy used*
2. *Savings calculations based on Carbon Trust Guide for SME*

Rc3. Install lighting sensors and controls

Manual control of lighting relies on staff behaviour. Removing the human aspect and installing a combination of lighting controls can significantly reduce energy consumption.

Daylight sensors detect natural levels of light in a room and adjust the artificial light output accordingly, preventing excess lighting. Movement detectors can ensure lights are switched off when no occupancy has been detected for a set period, usually around 15 minutes.

Methodology	Typical Costs	Cost saving	Carbon Saving
Lighting Sensors and Controls	Variable – Quote required.	Save up to 30% of lighting energy costs. **Estimated £98 savings per year.**	Save up to 30% on lighting associated emissions. **Estimated 0.31 tCO_2e savings per year.**

1. *It is estimated that current lighting accounts for 17% of total energy used*
2. *Savings calculations based on Carbon Trust Guide for SME*

Rc4. Run an energy-based Employee Engagement Campaign

Behaviour change has long been recognised as a low-cost, high-impact way of reducing an organisation's costs. Popular schemes to tailor to your business' high usage areas include 'Switch it Off'. Individual PCs and monitors as well as all communal equipment including printers, copiers, vending machines, kitchen equipment and coffee machines should be turned off at the plug at the end of each day.

Methodology	Typical Installation Costs	Cost saving	Carbon Saving	Payback Period
Employee Energy Engagement Campaign	Investment of 1-2% of energy spend. (Approximately £20)	Save up to 5% on energy costs. **Estimated savings of £96 per year**	Save up to 5% on energy associated carbon emissions. **Estimated savings of 0.31 tCO_2e savings per year**	**~ 2.4 months**

Savings calculations based on Carbon Trust Guide for SME

Rc5. Implement a policy to preferentially purchase energy efficient equipment

The initial outlay for energy-efficient equipment may be slightly higher than comparable products. However, the payback from reduced electricity consumption over the appliance's lifespan can make them a worthwhile investment whilst reducing the associated carbon footprint. Look out for energy efficiency labels such as ENERGY STAR®, Energy Saving Recommended and the EU Ecolabel.

Look out for energy efficiency labels such as ENERGY STAR®, Energy Saving Recommended and the EU Ecolabel. As part of the Government's Together for the Planet

campaign, SME's can claim tax relief by claiming capital allowances when buying listed energy saving equipment for the business. Find out more at GOV.UK

Rc6. Set optimal printing defaults

Black and white or greyscale printing uses less energy and is quicker and reduces costs. Double-sided printing significantly reduces paper consumption in an office. These pre-sets should therefore be set as default where possible on all computers within the organisation.

Rc7. Ensure screens and computers power down following inactivity

An average desktop computer and screen emits around 40g of CO_2e per hour when used. If left on overnight this could add up to 0.64kg per night.

In addition to encouraging employees to turn off equipment after use (Rc4) computers and screens can be programmed to automatically power down after a set period of inactivity. This is good practice to follow for all computers within an organisation where possible.

4. Heating, Ventilation and Air-Conditioning

Findings Summary	
Gas consumption per year (m^3)	2,343
Gas spend per year (£)	£3,531.32
Annual carbon emissions for gas (tCO_2e)	5.53
Gas comprises % of total carbon emissions	12.73%

Recommendations

Rc8. Fit a boiler insulating jacket or insulate boiler and associated pipework

Insulating the boiler and associated pipework can reduce loss of heat and money through escaping heat, a boiler jacket can be a quick and easy fix for this issue.

Method	Typical Installation Costs	Cost saving	Carbon Saving
Boiler Insulation Jacket	£30 for materials/ jacket	**£315 per year**	**0.71 tCO_2e per year.**

Savings calculations based on *Energy Saving Trust Reducing Home Heat Loss*

Rc9. Install weather compensation boiler accessory

A weather compensation controller alters the boiler flow temperature directly as the outside air temperature changes, ensuring timely changes in the heat supply and avoiding overuse. The sensor is placed on the outside of the building in a shaded area to deliver best results.

Method	Typical Installation Costs	Cost saving	Carbon Saving	Payback Period
Install a weather compensation device	~£200	Estimated savings of 10% of heating costs. **Estimated savings of £353 per year.**	10% of carbon associated with heating. **Estimated savings of 0.55 tCO_2e savings per year.**	**~ 7 months**

Savings calculations based on Carbon Trust Guide for SME

Rc10. Set up manual heating control systems

To maximise the efficiency of heating systems on site, it can be helpful to create a checklist of heating best practice for an allocated person/team to run through regularly. This should include the following:

- Individual radiator valves are appropriately set based on occupancy and time of year
- Radiators are unblocked e.g. by cardboard or chairs
- Thermostat temperatures are appropriately set to the lowest comfortable temperature for the workspace type and time of year
- Thermostat timings are appropriately set to match occupancy
- Thermostat clock is correctly set

The thermostat should be set to the lowest comfortable temperature, typically between **18°C and 21°C for offices** and even lower for other workspaces e.g. 16-21°C for Workshops, 11-14°C for areas of heavy work and 15°C for stores/warehouses. The Carbon Trust estimates that heating costs rise by about 8% for each 1ºC of overheating.

The central heating programme should match occupancy and come on around **half an hour before building occupancy begins and go off around half an hour before it finishes**, whilst remaining dynamic to changes if windows/doors are being opened.

Method	Typical Installation Costs	Cost saving	Carbon Saving
Setting up manual Heating Control Systems/Checklists	£0	Estimated savings of 10% of heating costs by implementing heating controls that utilise recommended temperatures and schedules. **Estimated savings of £353 per year.**	10% of carbon associated with heating. **Estimated savings of 0.55 tCO_2e savings per year.**

Savings calculations based on Carbon Trust Guide for SME

Rc11. Install reflective insulating radiator panels

Radiator reflector panels are designed to fit behind central heating radiators on external walls and save energy by reflecting heat which is normally lost into the wall. Supported by

the Energy Savings Trust, they stimulate the distribution of warm air and help to make central heating systems more efficient, saving up to 20% of heating costs. To take into account radiators mounted on internal walls, and different environments in commercial properties to domestic applications, savings associated with heating in this report have been estimated at 10%.

Method	Typical Installation Costs	Cost saving	Carbon Saving
Reflective Radiator Panels	~ £100	Estimated savings of 10% of heating costs. **Estimated savings of £353 per year.**	10% of carbon associated with heating. **Estimated savings of 0.55 tCO_2e savings per year.**

Savings calculations based on products endorsed by the Energy Savings Trust and academic studies.

Rc12. Install energy efficient window glazing

Some windows within the Cockburn Lucas offices were still single-glazed. It is estimated that a significant proportion of heat loss in buildings occurs through windows. Energy efficient glazing can reduce heat loss, cold spots, and the build-up of condensation, they can also help to reduce external noise.

Please consider that window glazing works may be restricted in listed buildings or conservation areas, permissions can be checked with the local planning authority.

Carbon savings associated with improving window glazing can also be dependent on the heating system in place.

Existing System per m^2	Proposed System per m^2
Single-glazed windows	**A-rated double-glazed windows**
Estimated U Value – 4.8 W/m^2K *434.5 heating hours per year (6am-10am) for 5 months*	Estimated U Value – 1.2 W/m^2K *434.5 heating hours per year (6am-10am) for 5 months*
Heat loss - 0.006 tCO_2e	Heat loss – 0.001 tCO_2e
0.004 tCO_2e per m^2 of windows ***E.g. 50m^2 of windows = 0.224 tCO_2e***	

1. *Estimated U Values taken from Historic England and average commercial figures.*
2. *Heating hours provided during site visit.*

Rc13. Fit draught excluders to doors and windows

Alternatively to window glazing works, draught stripping existing windows is easy, inexpensive and improves occupant comfort. It can also reduce heating costs by up to 10% and can pay back any investment within a year or two.

5. Water

Findings Summary	
Water consumption per year (m^3)	139.59
Water spend per year (£)	Unknown
Annual carbon emissions for water (tCO_2e)	0.059
Water comprises % of total carbon emissions	0.14%

Recommendations

Rc14. Water saving devices for toilets

Water saving devices in toilet cisterns displace water to reduce flush volume. It has been estimated that using water saving devices could save around 6,000 litres of water per employee, per year.

As part of the Government's Together for the Planet campaign, SME's can claim tax relief by claiming capital allowances when buying listed energy saving equipment for the business, including Efficient Low Flush Toilets and Efficient Retrofit Flushing devices. Find out more at GOV.UK

Rc15. Water saving devices for taps/faucets/showers

The volume of water that flows from a tap is typically determined by the valve size and system pressure. Taps connected to a high-pressure system will tend to deliver large amounts of water, often more than is necessary for performing tasks such as washing hands. A flow restrictor or aerator limits the amount of water to just what is necessary and push-button or motion-activated taps save water by removing the need for them to be turned off manually.

As part of the Government's Together for the Planet campaign, SME's can claim tax relief by claiming capital allowances when buying listed energy saving equipment for the business, including Efficient Auto Shut Off Showers, Efficient Low Flow Showerheads, Efficient Automatic Shut Off Taps and Efficient Low Flow Taps. There is also tax relief available for Leak Monitoring and Control Equipment, Meters and Monitoring Equipment, Rainwater Harvesting Equipment and Vehicle Wash Water Reclaim Units. Find out more at GOV.UK.

6. Waste

Findings Summary	
Waste disposal per year (T)	**1.62 total** *0.99 general waste* *0.63 mixed recycling*
Waste spend per year (£)	Unknown
Annual carbon emissions for waste (tCO_2e)	0.03
Waste comprises % of total carbon emissions	0.08%

Recommendations

Rc16. Investigate feasibility of food waste collections

Whilst on site, it was mentioned that Cockburn Lucas are interested in setting up a separate food waste bin. Segregated food waste collections can significantly reduce the carbon footprint of waste collections, as it diverts waste from incineration to anaerobic digestion. This also can drastically improve waste-related environmental reporting. For example, the carbon footprint of disposing of 1 tonne of food via incineration (combined with general waste) is double when compared to a separate anaerobic digestion collection.

However, site occupancy is relatively small and food waste bins generally require a collection at least once per week, therefore potentially working out a more expensive option for Cockburn Lucas. As an alternative, the team could investigate setting up an on-site hot composting bin in the outside space around the office, this would process food waste in addition to providing compost for employee gardens. Necessary permissions should be sought from the landlord, and steps taken to prevent pests before installing any composting equipment.

Rc17. Standardise internal bin infrastructure

It was observed on site that the type, colour, number, and location of internal waste bins are inconsistent. This can be confusing for staff and reduce segregation potential, there should always be general waste and recycling bins grouped together as if only one bin is present (i.e. under desk bins) staff are susceptible to using the closest bin rather than waiting to use the correct one. Cockburn Lucas could nominate a colleague to regularly check the contents of recycling bins to ensure they are not contaminated with non-recyclable materials and vice versa to check there are no recyclables in the general waste.

Rc18. Roll out new bin signage

It was observed on site that there was limited bin signage throughout the building. This can be confusing for staff and reduce segregation potential as people are unsure which items can be recycled or not. Rolling out standardised bin signage will help with consistency and

segregation as well as educating staff in the process, e.g. signage produced by the Waste and Resources Action Programme (WRAP). Improving bin signage with eye catching labels can also be a visual indicator to clients or visitors of sustainability culture within the business.

7. Resource Use

Recommendations

Rc19. Work towards paperless office processes

It was observed and reported on site that Cockburn Lucas require a lot of paper use in their processes and general administration. They have begun to use DocuSign for some client documents although this can depend on the third party involved. Where possible, working towards online document storage and work processes can save time and money for the business as well as promote good practice to both office staff and visitors to site.

Rc20. Use recycled paper where possible for print orders

Although paper use is not included in Cockburn Lucas' baseline carbon footprint within this report, this could be incorporated further down the line. Switching to using 100% recycled paper will **reduce the carbon footprint of paper use by 19.6%.**

8. Transport

Findings Summary	
Transport miles per year	Business Travel – 47,000 Staff Commuting – 32,712
Transport spend per year (£)	Unknown
Annual carbon emissions for transport (tCO_2e)	25.04
Transport comprises % of total carbon emissions	57.69%

Recommendations

Rc21. Implement the travel hierarchy for business travel

Cockburn Lucas' business travel is predominantly made up of client visits based in and around the East Midlands. The travel hierarchy focuses on eliminating travel wherever possible, e.g. by video conferencing, and when it can't be avoided, using the lowest carbon intensity form of travel possible. For example, encouraging walking or cycling for localised journeys, then public transport or car sharing in electric vehicles for longer journeys, with single occupancy car journeys being the least preferable.

Rc22. Improve active travel provision

As part of the employee commuting survey provided by Cockburn Lucas, five employees currently commute less than 5 miles return distance to work in a petrol or diesel car.

Provision for active travel could be improved to further incentivise staff to take up active commuting. For example, installing a secure location for bike storage and lockers for equipment may encourage more staff to actively commute.

Method	Typical Installation Costs	Cost saving	Carbon Saving
Encourage Active Travel	Variable	Variable depending on actions taken *Transportation related savings for the employee if they switched to active travel	If all employees with a return commute of less than 5 miles switched to active travel i.e. cycling or walking, this would result in a carbon savings of **0.31 tCO_2e per year**.

9. Engagement

Recommendations

Rc23. Include sustainability information on company webpages

Publicly reporting on environmental performance indicators including energy, gas, and water usage, waste tonnages and transport emissions is good practice and when working towards targets in each area can drive improvements and demonstrate good progress over time. This transparency of sustainability performance is becoming more sought after by customers and stakeholders so can be essential to the future success of the business.

Rc24. Formalise sustainability in the staff induction

It would be beneficial for overall environmental performance to include a formalised section in the staff induction covering all areas of sustainability for new employees. This could include familiarisation with any Environmental Policies/Statements, expectations around recycling and energy saving, or opportunities for active travel. This sets the scene for a sustainable workplace culture and encourages best practice in all areas.

Rc25. Offer sustainability training or 'toolbox talks' to employees

Regular 'toolbox talks' or informal briefings allow employees to keep up to date with the latest activities in the business. This also provides an opportunity for any new ideas or concerns to be discussed. Additional sustainability training is beneficial for anyone with formal sustainability responsibilities in their job role.

Rc26. Implement an Environmental Policy

Cockburn Lucas have produced a Sustainability Plan, setting out their priorities until 2025. It may be beneficial to condense much of the content in the Plan into an overarching Sustainability Policy which can then be shared with stakeholders and placed on the

company website. According to the ISO 14001 guidelines, a good Environmental Policy should include the following:

A commitment to;

- Protect the environment, including **prevention of pollution** and other specific commitments relevant to the context of the organisation.
- Fulfil **compliance** obligations.
- **Continual improvement** to enhance environmental performance.

The policy should be signed by senior leadership, dated, and reviewed annually to assess significance.

Finally, staff need to have awareness of the environmental policy when completed so it is good practice to integrate it into staff inductions or briefings. For reference please see a link to NTU's Environmental Policy here.

Rc27. Align with the UN Sustainable Development Goals

The UN Sustainable Development Goals (SDGs) are an urgent call for action by all countries - developed and developing - in a global partnership. The 17 goals recognize that ending poverty and other deprivations must go together with strategies that improve health and education, reduce inequality, and spur economic growth – all while tackling climate change and working to preserve our oceans and forests.

The SDGs are a good way for businesses to map their current environmental, social, and economic sustainability performance, and highlight areas for improvement for free, in-house. Cockburn Lucas can go on to highlight 5-7 goals which they feel are important to their business practice and that they wish to report progress on publicly on their website.

Rc28. Encourage staff to sign up to Nottinghamshire-wide Green Rewards programme

Green Rewards is a new scheme available to all residents across Nottinghamshire which rewards users for positive sustainability and well-being actions they've taken. Whether it's commuting by active travel, recycling, or focusing on plant-based meals, individuals can earn points and the top earners are rewarded with a £20 voucher for local businesses each month. It may benefit Cockburn Lucas to encourage staff members to sign up to this new scheme in their personal lives/homes and support changing the workplace culture to be more sustainable. Find out more here: **https://notts.greenrewards.co.uk/**

Rc29. Engage with suppliers and the wider Nottingham community of businesses

Much can be gained by improving an organisation's internal processes. However, exerting influence beyond Cockburn Lucas' operations and into the wider supply chain will maximise benefits. Although not captured in this report, supply chain emissions are usually the biggest contributor to any business' carbon footprint.

Keep up to date with news and events for business with the NTU commercial newsletter.

Rc30. Continue to monitor and report carbon emissions and progress towards reducing emissions

It is important to continue measuring carbon emissions annually and to monitor progress towards commitments and reduction goals. Annual accounting of operational carbon emissions should follow a similar process used here by first quantifying consumption of energy, waste, water, and any refrigerant gases. Carbon emissions can then be calculated using UK Government guidance and emissions factors, which are updated annually by BEIS.

Rc31. Investigate relevant carbon certification standards

Cockburn Lucas would like to investigate carbon neutrality in the future. Carbon emissions should be reduced as much as possible before considering carbon offsets when striving towards carbon neutrality. Offsets should ideally be aligned with the Gold Standard or Verified Carbon Standard to ensure high quality and validity. Cockburn Lucas expressed an interest in UK-based carbon projects, the Woodland Carbon Code currently provides woodland creation projects in the UK and generates independently verified carbon units.

Standards such as PAS2060 can help to add reliability and assurance that carbon neutrality targets have been met both internally and externally by providing a robust set of guidelines and a certification scheme for approval.

**According to the GHG Protocol Guidance on Scope 3 emissions, there are 15 categories of Scope 3 emissions that should be incorporated into a carbon footprint where possible, many of which fall under the umbrella of supply chain emissions, a top level look at this based on spend can be calculated via the SME Climate Hub.*

10. Recommendations Checklist

No.	Recommendation	Will adopt? (yes/no/ unsure)	Estimated timeframe? (when do you plan to implement?)
Rc1	Switch to or verify a Green Energy Tariff		
Rc2	Install energy efficient LED lighting upgrades		
Rc3	Install lighting sensors and controls – movement and daylight sensors		
Rc4	Run an energy-based Employee Engagement Campaign		
Rc5	Implement a policy to preferentially purchase energy efficient equipment		
Rc6	Set optimal printing defaults		
Rc7	Ensure screens and computers power down following inactivity		
Rc8	Fit a boiler insulating jacket or insulate boiler and associated pipework		
Rc9	Install weather compensation boiler accessory		
Rc10	Set up manual heating control systems		
Rc11	Install reflective insulating radiator panels		
Rc12	Install energy efficient window glazing		
Rc13	Fit draught excluders to doors and windows		
Rc14	Water saving devices for toilets		
Rc15	Water saving devices for taps/faucets/showers		
Rc16	Investigate feasibility of food waste collections		
Rc17	Standardise internal bin infrastructure		
Rc18	Roll out new bin signage		
Rc19	Work towards paperless office processes		
Rc20	Use recycled paper where possible for print orders		
Rc21	Implement the travel hierarchy for business travel		
Rc22	Improve active travel provision		
Rc23	Include sustainability information on company webpages		
Rc24	Formalise sustainability in the staff induction		
Rc25	Offer sustainability training or ‘toolbox talks’ to employees		

Rc26	Implement an Environmental Policy		
Rc27	Align with the UN Sustainable Development Goals		
Rc28	Encourage staff to sign up to Nottinghamshire-wide Green Rewards programme		
Rc29	Engage with suppliers and the wider Nottingham community of businesses		
Rc30	Continue to monitor and report carbon emissions and progress towards reducing emissions		
Rc31	Investigate relevant carbon certification standards		

Appendix

All costs and carbon emission saving estimates are based on industry research that is correct at the time of the Assessment. We recommend getting an evaluation by a specialist in the area i.e. lighting or heating, before undertaking any work as figures may vary.

Category	Total annual consumption	Total emissions (tCO_2e)	Proportion of total carbon emissions	Data source and assumptions
Electricity	23,352 kWh	6.11	14.07%	Electricity consumption was provided in kWh units by Cockburn Lucas for 9 months from October 2021 to July 2022. The data was then annualised to provide an average for 12 months. In line with BEIS GHG and conversion factor guidance, Scope 3 Transmission and Distribution and Scope 3 'Well To Tank' emissions have been included for electricity along with Scope 2 emissions per kWh. The BEIS conversion factor for 2022 was used.
Gas	2,343 m^3	5.53	12.73%	Gas consumption was provided by Cockburn Lucas in m^3 units for 11 months from July 2021 to May 2022. The data was then annualised to provide an average for 12 months. In addition to Scope 1 emissions associated with onsite gas consumption, Scope 3 'Well To Tank' emissions have been included to align with BEIS GHG and conversion factor guidance. The BEIS conversion factor for 2022 was used.
Working From Home Emissions Electricity Gas	2,481.60 kWh 27,587.12 kWh	6.63	15.30%	Working patterns were provided by Cockburn Lucas as part of the commuting survey. The following results were transformed into carbon footprint estimates using the Eco Act Homeworking emissions whitepaper. 3 x employees worked from home 1 day per week, 7 x employees worked from home 2 days per week 5 x employees worked from home 3 days per week 3 x employees worked from home 4 days per week
Transport	Business Travel – 47,000 miles Commuting – 32,712 miles	25.04	57.69%	Transport related data was provided as miles travelled. This has all been translated into carbon emissions for each category according to the data available. Employee commuting data was provided in the form of a survey, emissions factors for each vehicle type have been used.

				Scope 3 'Well To Tank' emissions from the use of fuel for transport have been included in total carbon emissions associated with travel.
Water & Wastewater	139.59 m^3	0.06	0.14%	Water consumption was provided in cubic metres (m^3) for 12 months from July 2021 to June 2022 by Cockburn Lucas. Whilst a specific figure for wastewater was not available, it has been estimated that wastewater equals 100% of water consumed.
Waste	1.62 tonnes total *0.99 tonnes general waste* *0.63 tonnes mixed recycling*	0.03	0.08%	No tonnage data was available to Cockburn Lucas at the time of this report, the following services were reported by site: • 1 x 240l general waste bin collected fortnightly • 1 x 240l mixed recycling bin collected fortnightly Tonnages for this general waste and mixed recycling were estimated based on data from NTU's waste contractor Enva. These figures are averages taken from 10 years' worth of weight data on commercial waste collections, exchanges and tip and returns.

Scoped Emissions

TOTAL CARBON EMISSIONS	Total emissions (tCO_2e)	Scope 1 emissions (tCO_2e)	Scope 2 emissions (tCO_2e)	Scope 3 emissions (tCO_2e)
Energy				
Purchased Electricity	6.11	-	4.52	1.59
Gas	5.53	4.72	-	0.81
Transport				
Business Travel	18.34	-	-	18.34
Employee Commuting	6.71	-	-	6.71
Water & Wastewater	0.06	-	-	0.06
Waste	0.03	-	-	0.03
Working From Home	6.63			6.63
TOTAL	**43.41**	**4.72**	**4.52**	**34.17**
PROPORTION BY SCOPE		10.9%	10.4%	78.7%

Please note figures are rounded.

Please see the list below for references used throughout and resources for further information:

Carbon calculations: UK government guidance on company greenhouse gas reporting and carbon conversion factors are provided by the Department for Business, Energy & Industrial Strategy. 2022 Conversion Factors for advanced users were used to calculate Cockburn Lucas' carbon footprint. Further guidance can also be found in the Environmental Reporting Guidelines.

Scoped emissions information: GHG Protocol Corporate Accounting and Reporting Standard

Carbon Trust guides for SMEs: energy and carbon saving estimations were informed by guidance documents available for SMEs through the Carbon Trust.

Energy efficient lighting: Information found in Zero Waste Scotland's Lighting Improvements Calculator was consulted whilst estimating energy savings from lighting upgrades. The Carbon Trust also have useful resources for assessing lighting options

Zero Waste Scotland resources for SMEs (though Scotland-based, the resources can be useful for general information for environmental best practice and energy efficiency in businesses).

Working From Home energy estimations: WFH electricity and gas consumption figures have been estimated following the methodology and approach of the Eco Act Homeworking emissions whitepaper.

Berners-Lee, M. (2020) **How Bad Are Bananas?.** London: Profile Books Ltd.

Please find further information on the Sustainability in Enterprise's funding:

Nottingham Trent University

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