Acaster Lloyd

Carbon-emissions Report 2023

Prepared by
Carbon Neutral Group

Executive Summary

This report outlines the greenhouse gas emissions arising from the activities of the team at Acaster Lloyd during the period aligning to the fiscal year of 2023. The requirement was to explore the scope one, two and part of three emissions.

In response to the climate crisis and the threat that the crisis poses, the UK Government has written into legislation that UK businesses must be net zero by 2050. In addition to the UK-wide target, Scotland has set its own and is aiming to become a net zero economy by 2045. The UK has also committed to a 68% reduction in emissions by 2030 as part of its Nationally Determined Contribution towards the Paris Agreement.

The findings from this exercise have all been broken down into subsections within each scope. This will help identify the high-risk areas for the group and highlight where the team needs to focus time and attention as they strive towards their Net Zero goals.

The calculations to create the Carbon Emission figures are based on the guidelines provided by the UK Government GHG Conversion Factors for Company Reporting, the Department for the Environment, Food & Rural Affairs as well the Department for Business, Energy & Industrial Strategy.

The data of the factors used in the report all align with the relevant year's government DEFRA reporting period. As the report is for Acaster Lloyd Financial Year of 2023, this crosses two DEFRA emission factors, including emission factor changes. We have incorporated this into our calculations.

We have made assumptions on items where the data has not been available and these are commented on within the sections.

Overview of Emissions

With assistance from the team at Acaster Lloyd, we have been able to produce the below report on the emissions for the financial year of 2023. The report aims to start the team at Acaster Lloyd on their journey to Net Zero. The report will help by showing areas that the team are doing well in and where they need to focus their efforts on emission reductions.

From the data that we have gathered from the areas in scope for the project, we can see that Acaster Lloyd have emitted **51.5** tonnes of CO2e. This is the same as a team member taking **24 return flights from Manchester to New York.** If the team are going to offset all of their emissions, they will have to offset: **52 tonnes of CO2e.**

The table below shows the breakdown of emissions between each scope.

Line Items	Carbon Emission Tonnes CO2e
Scope 1	
Gas	6.17
Company Owned Vehicles	0.00
Refrigerant Gases	0.00
Scope 2	
Electricity (office use)	2.93
Scope 3	
Business Travel	35.63
Hotel Stays	1.58
Home Working	3.54
Staff Commuting	1.28
Water	0.37
Transmission and Distribution	0.052
Total	**51.552**

Section 1

Section one covers Acaster Lloyd's Scope 1 Emissions. These emissions are what Acaster Lloyd owns or controls directly. In this section we are covering the below areas, gas consumption, company owned vehicles & fugitive emissions.

Scope 1 Emission Area	CO2e Tonnes
Gas	6.17
Company Owned Vehicles	0.00
Fugitive Gases	0.00
Total	**6.17**

Gas

In the reporting period that we are covering, we have calculated that the business consumed 33,7656 kwh of Gas that has meant that they have emitted 6.17 tonnes of CO2e. The gas is primarily used for heating the office space. This figure of 6.17 tonnes is a relatively low emission for a business of their size which represents energy efficiency actions that are taking place within the business.

Office	Tonnes of CO2e
London Head Office	6.17
Gas Emissions	6.17

Scope 1 Emission Area	KWh Consumption	CO2e Tonnes
Gas	33,765.466	6.17

- The data was calculated from the data that the team received from Acaster Lloyd for their gas consumption.
- The associated emissions were calculated using the relevant emission factors from the DEFRA 2022 & 2023 conversion factors. As the data crosses two emission factor sets of data, this has been incorporated into the data.

Company Owned Vehicles

Acaster Lloyd does not have any company owned vehicles and has no emissions to report for this area.

Fugitive Emissions: Refrigerant Gases

The business premises has no air conditioning facilities, and the business does not manufacture products that need these types of gases so no fugitive emissions that can be included in this scope.

Section 2

Scope 2 Emissions for Acaster Lloyd focus on their procurement and consumption of electricity even though they are not responsible for emission for creating the electricity.

Electricity

The reporting period for Acaster Lloyd covers two years of the emission data conversions. In the 2023 update, the UK Electricity CO2e factor has increased by 7% (compared to the 2022 update) this is due to an increase in natural gas use in electricity generation and a decrease in renewable electricity generation. As the office doesn't consume a large amount of electricity so this change, hasn't had a big impact on their carbon footprint.

Office	Tonnes of CO2e
London – Head Office	2.93
Total	**2.93**

Scope 2 Emission Area	Kwh	Tonnes of CO2e
Electricity	14,633	2.93

In the period covered, the business consumed **14,633 kWh of electricity**, which equates to roughly **2.93 tonnes CO_2e**. Electricity use was mainly for light the office space and powering devices such as laptops and appliances. At this level, emissions are relatively low for an organisation of this size and the team have already started to implement energy saving measures.

- The data was calculated from the data that the team received from Acaster Lloyd for their electricity consumption.
- The associated emissions were calculated using the relevant emission factors from the DEFRA 2022 & 2023 conversion factors. As the data crosses two emission factor sets of data, this has been incorporated into the data.

Section 3

Scope 3 Emissions

Scope 3 emissions represent emissions in the Acaster Lloyd value chain that are not directly under their control. These emissions tend to make up 70% of the total emissions for a business when they are fully calculated across all sections. For this report, the area of Scope 3 that we have included are, business travel, hotel accommodation, home working, staff commuting, water consumption and transmission and distribution. From the data

that we have collected and the areas that we have included, we can see that the largest area of the businesses emissions for Scope 3 come from the team's business travel. As we include more areas into future reports, it would be good to track this trend and see where reductions can be made.

Scope 3 Emission Area	Tonnes CO2e
Business Travel	35.632
Hotel Stays	1.59
Home Working	1.29
Staff Commuting	3.64
Water	0.08
Transmission & Distribution	0.052
Total	**42.284**

Business Travel

Acaster Lloyd has a client first approach. This means that they spend a lot of time with their clients either via video calls or in face-to-face meetings. This client first approach does not necessarily mean more travel. Acaster Lloyd has a guide in their environmental policy that states that their preference for client and supplier meetings is via online meetings and where possible to take public transport and avoid cars. The latter is demonstrated as there are no emissions for cars in the report.

The train was used by the team which is great to see. Trains are not only preferable due to the lower emission, but they are also a more productive means of travel. Only 79kg of emissions was emitted so where possible, the team need to focus on train travel.

There is also a high amount of airmiles in the report. This was down to trips to the several long-distance trips for business development and client meetings opportunities. The class and distance for each flight was provided by the team so that this ensures accurate calculations for the carbon footprint. The business had a total carbon footprint for travel of 35.6 tonnes, of which 34.39 were from air travel.

As the business grows, we are expecting to see the team do more miles as they will have a larger team and more clients to visit. The team will need to consider what is the best way and more sustainable option for their journey.

Method of Travel	Distance Miles	CO2e (Tonnes)
Air travel	71,664.12	34.39
Train	13,859	0.79
Car – Diesel	0.00	0.00
Car – Petrol	0.00	0.00
Car- Hybrid	0.00	0.00
Taxi	927.8	0.45
Bus	13.2	0.002
Total		**35.632**

- The data for the business travel section was collected from the Acaster Lloyd team who had reviewed their company expenses for travel.
- The associated emissions were calculated using the relevant emission factors from the DEFRA 2023 & 2024 conversion factors.
- Emissions for flights in the United States are calculated from the emission factors provided by epa.gov

Hotel Stays

Hotel stays make up an important part of the business travel emission factor. The emissions tend to be a lot lower than the method of transport to the destination however they still need to be included. The location of the hotel is important as different locations have a different carbon footprint, and this needs to be accounted for. Not all hotels and locations have the same footprint. From the data that we obtained for the period in review, the team had a total of 120 nights in hotels. This is broken down into 39 stays in the USA with 60 in the UK with 57 of these in London and 21 in the USA. These stays have led to an emission of 1.59 tonnes.

Location	No of Nights	Hotel Stay CO2e (Tonnes)
Denmark	19	0.25
Hungary	2	0.33
United Kingdom	3	0.315
United Kingdom - London	57	0.655
United States of America	39	0.627
Total	**120**	**1.59**

- The data for the business travel section was collected from the Acaster Lloyd team who had reviewed their company expenses for hotel accommodation.
- The associated emissions were calculated using the relevant emission factors from the DEFRA 2023 & 2024 conversion factors.

Home working

The team at Acaster Lloyd have a flexible working practice and approach. The team can work from home or the office depending on their working day or client meeting requirements. This has had a direct impact on the home working emissions and the commuting. Less time in the office does mean a lower commuting footprint. The data from the below table is from a survey that was conducted in September 2024 to obtain the teams home working habits and the related emissions. The emission for this area is low and not a concern however it will be interesting to see how this may change over the next working year.

Work from home days	Number of people	Emissions Tonnes CO2e
1	3	0.05
2	11	0.18
3	3	0.18
4	9	0.53
5	2	0.35
Total		**1.29**

- The working at home emissions includes the seasonal change and the requirement for heating to be added to the emission factors. To create the calculation, the total number of full-time working hours is multiplied by the conversion factor.
- The data for this section was calculated based on a home working survey that the Acaster Lloyd team completed in September 2024.
- The emissions we calculated using the relevant emission factors from the DEFRA 2024 conversion factor.

Staff Commuting

On average the team commute a total of 1,707 miles per week. This is combination of car and public transport. The calculations below represent the weekly and annual emissions from the teams commute to the office. We have based the annual emissions on a 48-working week. We can see that a large percentage of the commuting miles come from people commuting to the office via the train. The train is a great way to commute due to its low carbon footprint. If possible, this would be a good area for the team to consider, how they commute to the office and the associated emissions. The data from the below table is from a survey that was conducted in September 2024.

The survey was conducted to ensure that this emission area was as accurately calculated as possible. As the commuting is a higher area for emissions, it would be good to monitor this area over the next year to see how we can reduce the emissions.

Method of Commute	Weekly Miles	Annual CO2e Emissions (Tonnes)
Bike	0	0.00
Bus	20	0.07
Car – Driver	68	0.84
Car - Passenger	17.6	0.13
Train	1,435.08	2.46
Tube	107.2	0.14
Walk	50.9	0.00
Total TCO2e		**3.64**

- This survey included the employee's mode of transport mode, distance travelled and frequency of travel.
- The emissions from employee commuting were calculated using relevant emission factors from DEFRA 2023 & 24 conversion factors.

Water

To calculate the water for Acaster Lloyd, we must consider both the supply and treatment of water. The team has their water data for 2023 and for 2024 however 2022 was not available. To work out the below data, we used the 2023 water consumption for the Supply and Treatment calculations. We can see that the water consumption has a very low carbon footprint and one that does not have a big impact on the businesses overall carbon footprint.

Line item	Annual CO2e Emissions (Tonnes)
Water Supply & Treatment	0.19
Total	**0.19**

- The emissions from employee commuting were calculated using relevant emission factors from DEFRA 2023 & 24 conversion factors.

Transmission and Distribution

Transmission and distribution (T&D) factors should be used to report the Scope 3 emissions associated with grid losses (the energy loss that occurs in getting the electricity from the power plant to the organisations that purchase it).

Line item	Annual CO2e Emissions (Tonnes)
Transmission and Distribution	0.052
Total	**0.052**

Section 4 - Recommendations

This Section will explore the recommendations for Acaster Lloyd following the performance in their baseline assessment report. Some areas do not need recommendations, whereas simple changes in other areas could reduce an already small footprint.

1. Electricity

When you review the total emissions and see the percentage that is contributed by the electricity use, you understand that this is not a key area to focus on for reduction. At present, we would recommend that if you can change to a provider that is a 100% renewable to help lower the emission as the consumption of electricity may only increase as the business grows. This increase can be due to the number of devices, more office space and more team members. In the current property, the team don't have control over items such as installing their own solar panels as it would be down to the landlord, however if a change of premise in the short to medium term, a greener office is something to have on the agenda. We can look to develop a plan for electricity use and consumption during an office inspection however until then I have put below some ideas for lowering electricity consumption in the office. Acaster Lloyd have a green team in the business so keeping a track of electricity consumption and spikes in the usage could help to monitor and make adjustments to the usage throughout the year.

- LED lighting – they can save as much as 80% on lighting costs
- Reducing lighting –Dimmed lights use less electricity and can be linked to sensors that turn up the light as the daylight outside increases.
- Switch off! – remind employees to turn off laptops and monitors that are not being used, not standby, off. If things are needed to be left on, leave a red post it notes so that no accidental good deed is done and it's turned off.
- Appliances – if a new appliance is needed then check to ensure that it is a A+++ rated or energy star certified models.
- Cloud first approach for technology and Infrastructure to help to reduce any onsite electricity requirements from servers or IT hardware.

2. Gas Consumption

Gas Consumption in the business is the second highest emission factor after business travel. Unsurprisingly the majority of this is used from late autumn to mid spring. A simple change here is reviewing what temperature the office thermostat is set at. A one-to-two-degree reduction can make a big difference to the overall consumption and emission without it having a direct impact on the team in the office.

3. Business Travel

In the businesses environmental policy is does refer to the team using video conferencing as a way to help with regular client and supplier contact, this is a great way to keep the day-to-day emissions down. The largest area for emissions at the moment is air travel. Travel overseas for client work is key for the business growth so we wouldn't suggest any

changes here however this could be one area to consider for Carbon Offsetting. This is because the team already travel only when it is necessary and via economy class.

- Air travel – this is important to the business to meet clients and for business growth however are the trips essential, can one trip cover multiple meetings so save air travel?
- Business travel – can the departments look at how much travel they did in the previous year and see if they can be below that on a quarterly basis.
- Where possible, use trains. Trains allow for the team to be productive and have a far lower carbon footprint than a car.
- If a car is used, can you travel together opposed to people driving individually?
- Hotel stays – as the business is based in London, do you need so many hotels stays in London? The year we reviewed, there were 57 London hotel stays. This is approx. 0.65 tonnes of CO2e. Can this be reviewed to why people are staying overnight oppose to getting the train home?

4. Office Commuting

The commuting to the office is one of the lowest that Carbon Neutral Group has had the pleasure of reported on. The train is used heavily which is fantastic and the car is hardly used at all, that makes a huge difference. Any changes here will make a difference however as it's a small area of emissions so the impact will be small.

- Review the public transport options for commuting team members.
- Cycle to work scheme – depending on where people live, can people cycle to work or cycle the last few miles.
- Walk the last mile – although this might be a little gimmick, but can the team members drive to 1 mile of the office and walk the rest? It's a small change and not always practical but that would add up over the year.

5. Data collection & accuracy

The data collection and accuracy of that data can be a challenge for any business that is undertaking this project. For the next year we need to ensure that all data is collected, calculated and the initial report is submitted within three months of the project starting. This should give both parties the opportunity to review the report and start to make changes or recommendations to the report and the actions following the report being issued.

- A key recommendation here is to speak to the landlord about obtaining data far more regularly as this caused delays with the project and will help with areas such as waste.
- Data for carbon reporting is easier to manage if it is shared quarterly. As the team travel for meetings, hotel stays & commute, we can review things quarterly. This

allows for quicker reaction to emission spikes and easier for data collection and collation. By it being more regular it also allows for greater accuracy

Next Steps – Going Green.

Acaster Lloyd's carbon footprint is at a point where action in key areas can make a 10% reduction however this is mostly aimed at the businesses air travel and their plans for air travel for the next 12 -36 months. The other areas in the report can be reduced such as London based hotel stays however the impact will not be as great. The gas emissions are quite low for a business of their size with it averaging out as half a tonne per month however a 20% saving on this emission area would have a positive impact on the overall carbon footprint of the business.

The team already have an environmental agenda and a team that review the green agenda on a regular basis. A target for them is the continuous monitoring of the business's utilities and travel to ensure that they are keeping tabs on where they are spending or over consuming

Carbon Offsetting – this is something that we would not recommend as we can make clear reductions to Trio's footprint before this action is taken. If the team wanted to offset any of their emissions, we would only recommend that they offset their flights.