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CIVIC

Civic Engineers

2024 Carbon Report

23 August 2024

Version 1

Welcome to Civic Engineers's Carbon Report.

This report has been generated to quantify the carbon footprint for Reporting Year 2024, and to act as the basis for data-driven decision-making when it comes to Civic Engineers's sustainability strategy.

The key points from this report are:

- The total footprint for the reporting period is 97.66 tCO2e.
- The key contributors to the overall footprint are:
  - Employee Commute (27.17%)
  - Business Travel (23.91%)
  - Office Food And Drink (11.98%)
    - Collectively these made up 63% of the total footprint.
- Based on 110 full time employees on average during the period, this is a value of 0.89 tCO2e/employee.

This year, we strongly recommend formalising Civic Engineers's net zero pathway and making use of the Virtual Sustainability Officer® to continue the momentum that the company has generated by implementing this report.

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Emissions Summary /

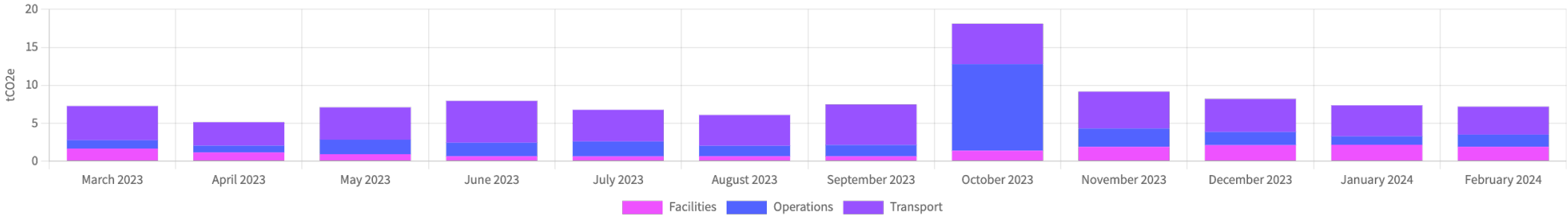
Here you can find your emissions broken down by their operational category.

To explore these emissions in more detail, please visit https://vso.alectro.io/overview/summary-by-group

Emissions by Group

Type	tCO2e	tCO2e/employee	%
Facilities	15.57	0.14	15.94%
Operations	28.79	0.26	29.48%
Transport	53.31	0.48	54.58%
Total	**97.67**	**0.89**	**100%**

Monthly Emissions by Group



Category Breakdown

Here you can find your emissions broken down by their operational category.

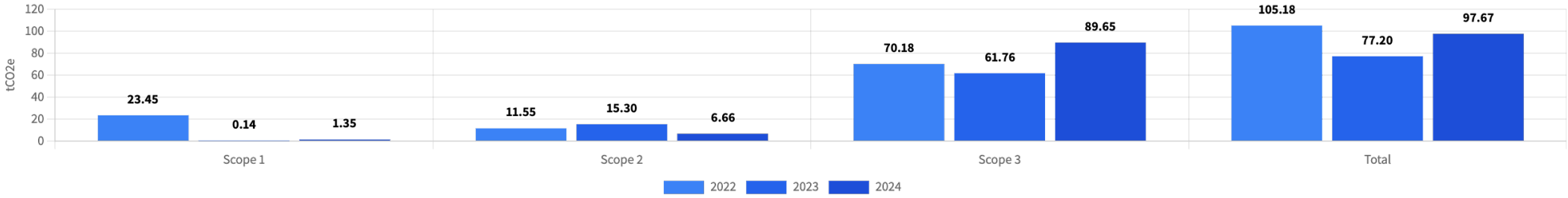
This allows you to quickly understand which parts of the business contribute the emission hotspots so that you can attribute emissions reduction actions to specific parts of the business.

To explore these emissions in more detail, please visit https://vso.alectro.io/overview/summary-by-group

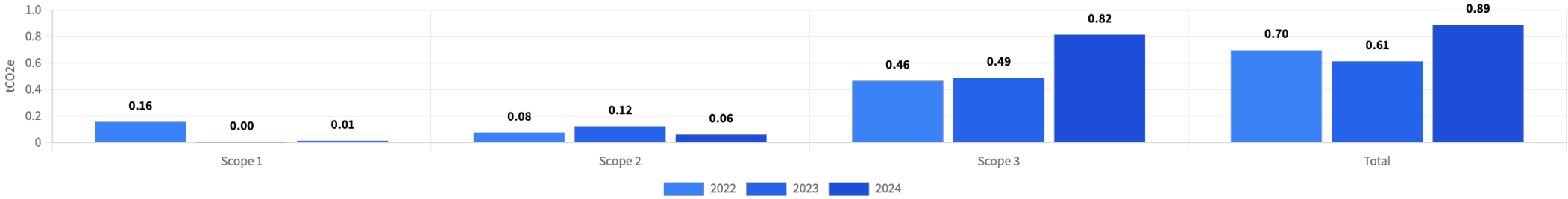
Here you can find your emissions broken down by the reporting year to allow an annual comparison.

To explore these emissions in more detail, please visit https://vso.alectro.io/emissions

Company Emissions



Emissions per Employee



Here you can see a breakdown of the total emissions of each category measured.

Please note that the total emissions should be compared with employee growth to compare real vs relative changes.

A full breakdown of each section can be explored at https://vso.alectro.io/emissions

Scope	Type	Description	2023 tCO2e	2024 tCO2e	Overall Change	
3	Transport	Business Travel	7.20	26.78	19.58	
3	Transport	Employee Commute		26.53		
3	Operations	Food and Drink		13.62		
3	Operations	Purchased Goods		10.97		
2	Facilities	Purchased Electricity	15.30	6.66	-8.64	
3	Facilities	Working From Home		5.82		
3	Operations	Socials and Events		2.15		
1	Facilities	Heating	0.14	1.35	1.21	
3	Facilities	Transmission and Distribution	1.39	1.31	-0.07	
3	Operations	Waste Generated	2.30	1.04	-1.26	
3	Operations	Material Use	0.43	1.02	0.59	
3	Facilities	Water Use	0.44	0.42	-0.02	
1	Facilities	Refrigerant	0.00	0.00		

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Suggested Next Steps /

Alectro has conducted a sustainability audit for Civic Engineers for the 2023/2024 period, analysing the company's carbon footprint. The analysis identified business travel and commute emissions as the primary contributors, with each category accounting for 26 tCO2e. These areas represent significant opportunities for improvement, and specific actions have been outlined to address these issues.

The audit also highlighted the importance of scrutinising the supply chain to better understand and mitigate indirect emissions. While Civic Engineers has implemented commendable sustainability policies, the focus should shift more towards emission reduction strategies rather than relying primarily on offsetting measures.

Total emissions for the year were recorded as 97.67 tCO2e, with facilities contributing 9.75 tCO2e. Additionally, a concerning trend has been observed in per-employee emissions. In 2022, emissions were recorded at 0.89 tCO2e per employee. For 2023, the emissions were modelled at 0.94 tCO2e per employee, though a different firm measured this at 0.61 tCO2e per employee. This variance underscores the need for accurate measurement and the urgency of implementing effective measures to reduce emissions and strengthen sustainability practices.

With a dedicated approach to sustainability, Civic Engineers has the potential to significantly reduce its carbon footprint and lead by example in environmental responsibility.

This is a list of suggested actions to implement in the coming year. Each item can be assigned to a member of staff and the completion progress can be tracked with the kanban board.

The dynamic emission reduction action tracker can be explored at https://vso.alectro.io/actions

Doing

- Carbon offset to become carbon neutral

Ideas

- Create a working group
- Report our impact publicly
- Create Key Carbon Performance Indicators (KCPIs)
- Create a sustainability policy

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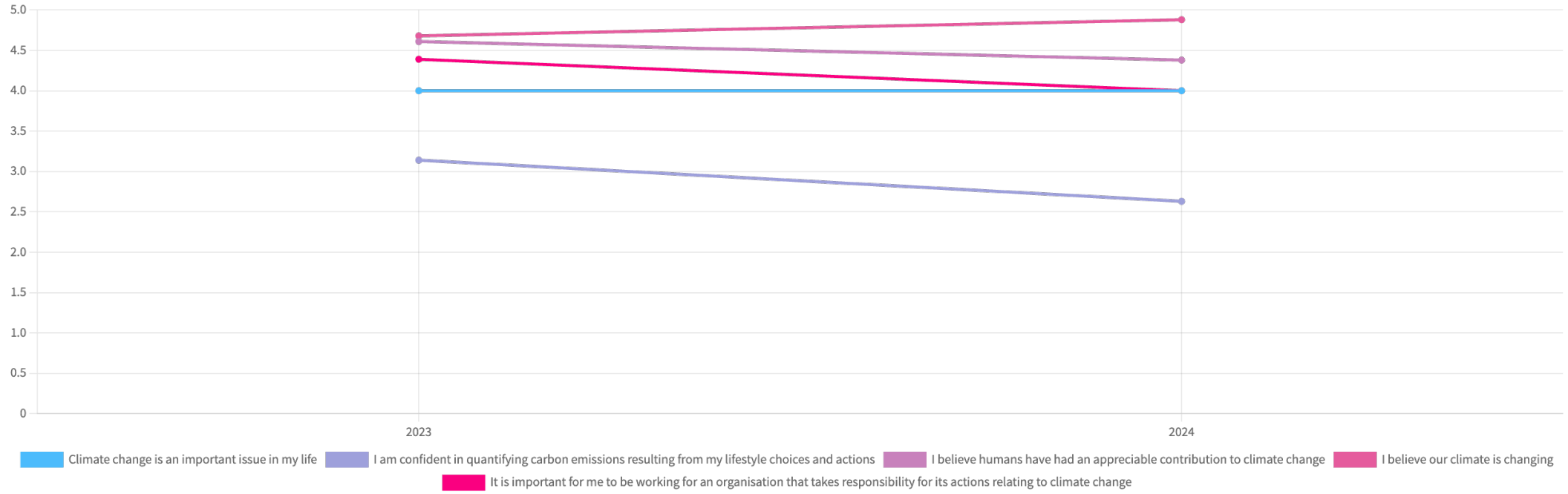
Project Detailed Analysis /

During the employee analysis, each member of the team answered standard questions about issues surrounding carbon emissions and climate change. The results are shown below and compared over time.

We asked employees how much they agreed or disagree with these standard questions (shown below), with the following options available for them to score their response by: 1 = Strongly Disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly Agree.

To explore these in more options, including how the scores have changed over time, please visit: https://vso.alectro.io/engagement

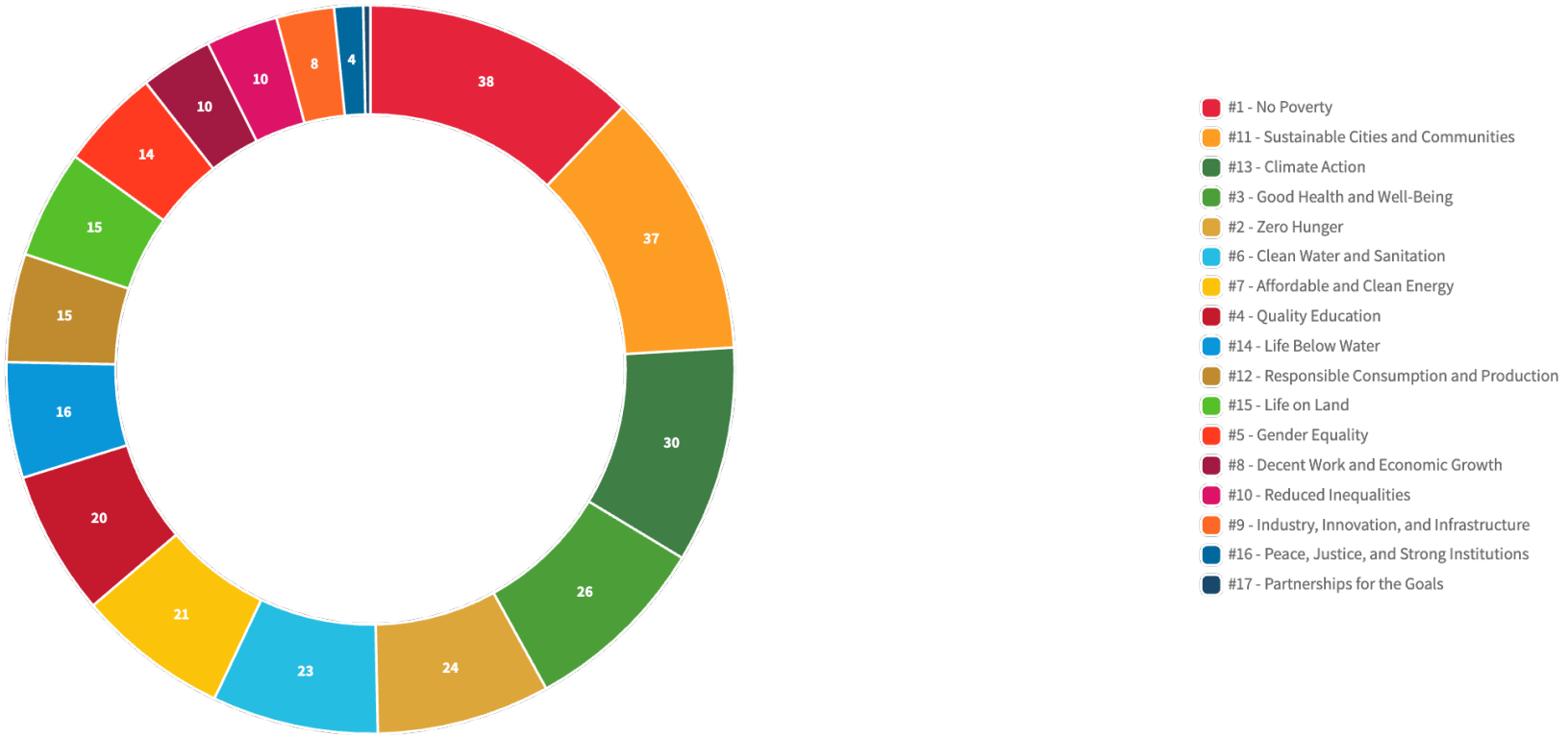


United Nations Sustainable Development Goals (SDGs)

The UN Sustainable Development Goals (SDGs) are a set of 17 global objectives aimed at ending poverty, protecting the planet, and ensuring prosperity for all by 2030. For more information, you can visit https://sdgs.un.org/goals

We asked employees to vote for their top three goals for guidance on which project they would like to see the company support, with the results shown below.

To explore the votes in more detail, please visit https://vso.alectro.io/engagement



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Emissions /

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3
GHG Scope

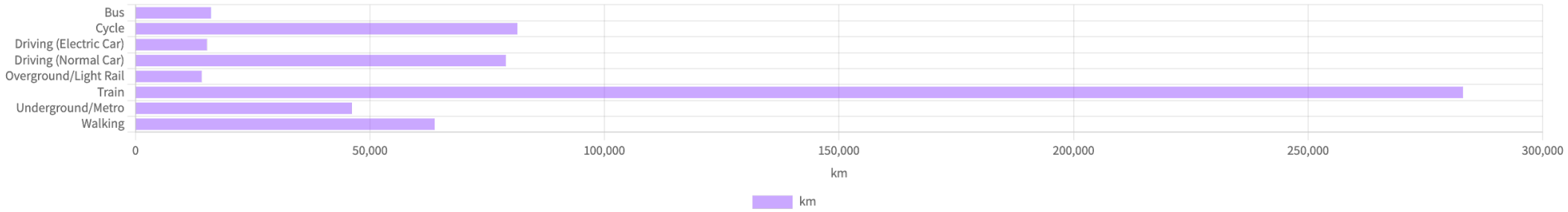
26.53 tCO2e
Total Impact

27.17 %
% of Total Impact

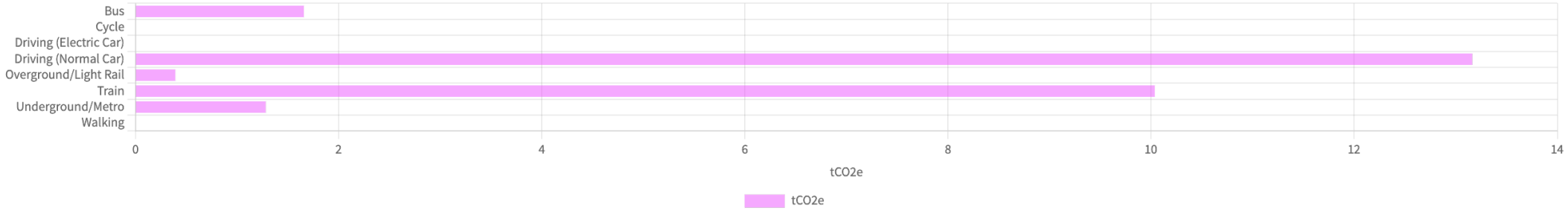
Explore Data →

Employee Commute is mainly impacted by the mode of transport and the total distance travelled by employees. A high proportion of distance travelled by car or motorcycle will increase the impact, whereas when employees use mass transport methods like Rail or Metro systems, then the impact will reduce.

Employee Commute KM



Employee Commute tCO2e



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3
GHG Scope

23.35 tCO2e
Total Impact

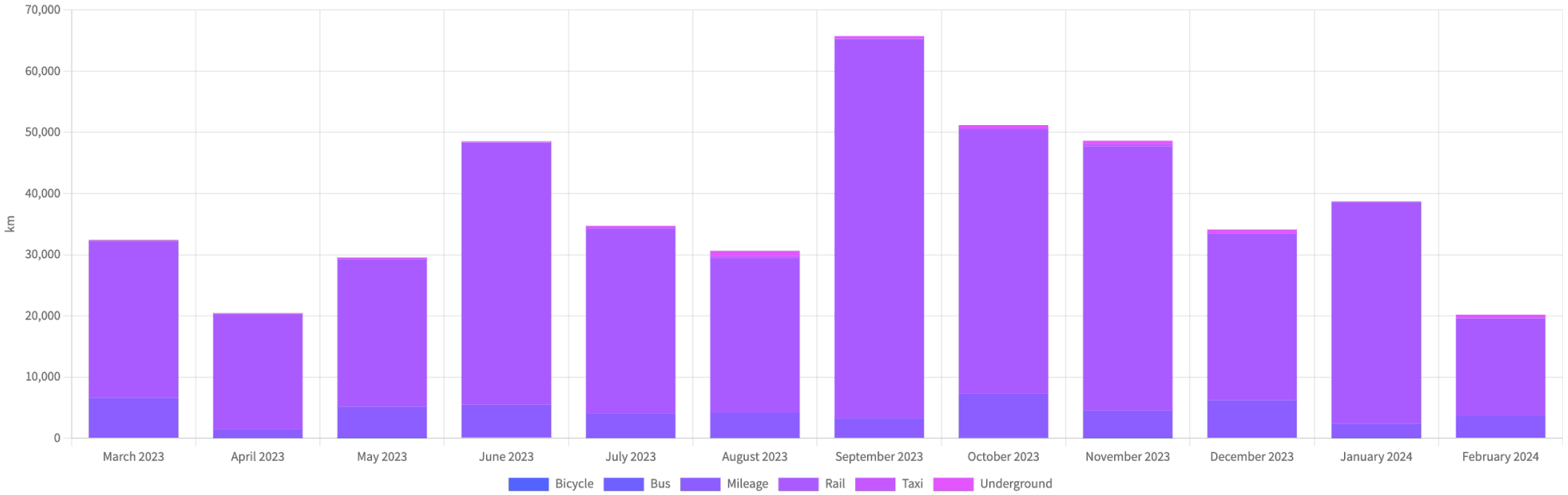
23.91 %
% of Total Impact

Explore Data →

Business travel emissions come directly from expenses and are categorised by their type. Specifying the method of travel and any additional information will improve the data for future years of analysis.

In general, public transport has a much lower impact than private transport methods and so should be pioritised. For example, company policies should prioritise train travel over private vehicle mileage where possible. Where this is impossible, the company should look to introduce means to assist employees with a transition to electric vehicles or similar.

Distance Travelled



3
GHG Scope

11.70 tCO2e
Total Impact

11.98 %
% of Total Impact

Explore Data →

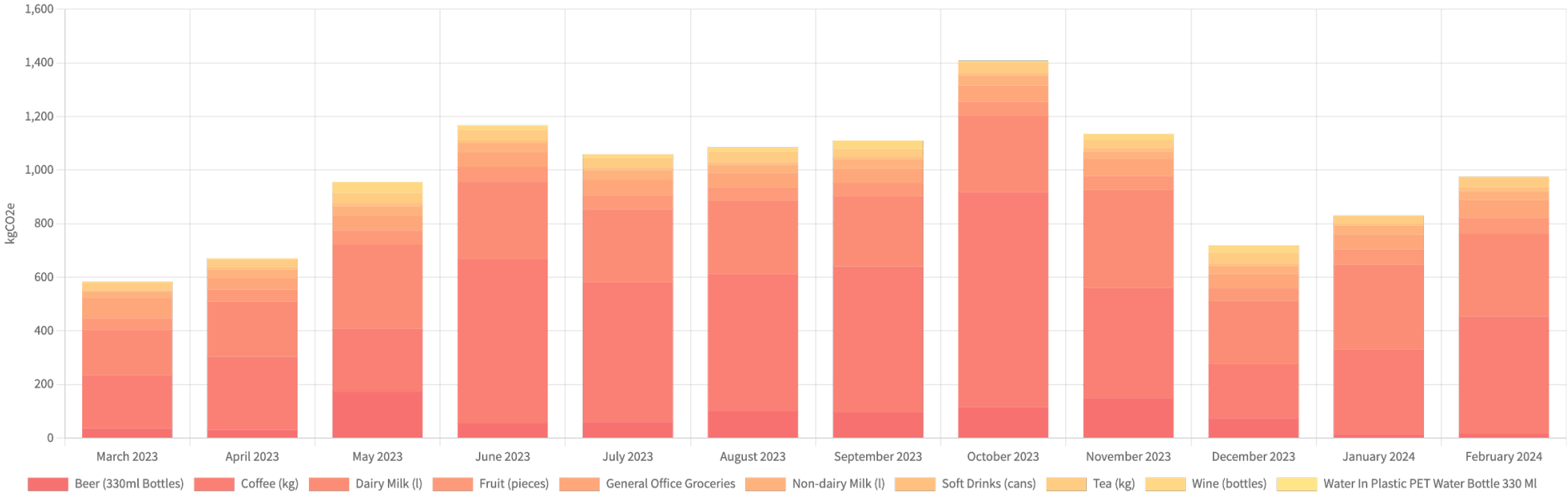
This data comes from a combination of direct data entry and any additional items purchased through the company expense systems.

Office food and drink contributes to the overall company emission profile based on the impact of the production of the items consumed within the office.

Some items in particular (for example coffee and dairy milk) can be significant contributors and so ensuring these high impact items are purchased according to an Environmental Purchasing Plan (EPP) is important.

Finally, the company should seek to reduce any waste as actively as possible by only ordering what is needed and monitoring the consumption levels on a monthly basis.

Office Food and Drink Emissions



3
GHG Scope

10.77 tCO2e
Total Impact

11.03 %
% of Total Impact

Explore Data →

Day-to-day operations require consumable-electronics and IT equipment. The calculations use manufacturer Life Cycle Analysis (LCA) values but exclude point-of-use values (these are included in electricity consumption).

This data comes directly from the Assets Upload wizard, and takes all items purchased in the reporting year, according to GHG Protocol guidelines.

When it comes to IT equipment, emissions are essentially unavoidable, so selecting supplier wisely is the best choice a company can make. If you need advice on the best companies, please ask the Alectro team.

In addition, e-waste should be managed appropriately. Being fully accountable for every device used, and responsibly recycling or disposing of these devices at their end-of-life, should be implemented as an official policy.

Electronic Equipment tC02e

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2
GHG Scope

6.66 tCO2e
Total Impact

6.82 %
% of Total Impact

Explore Data →

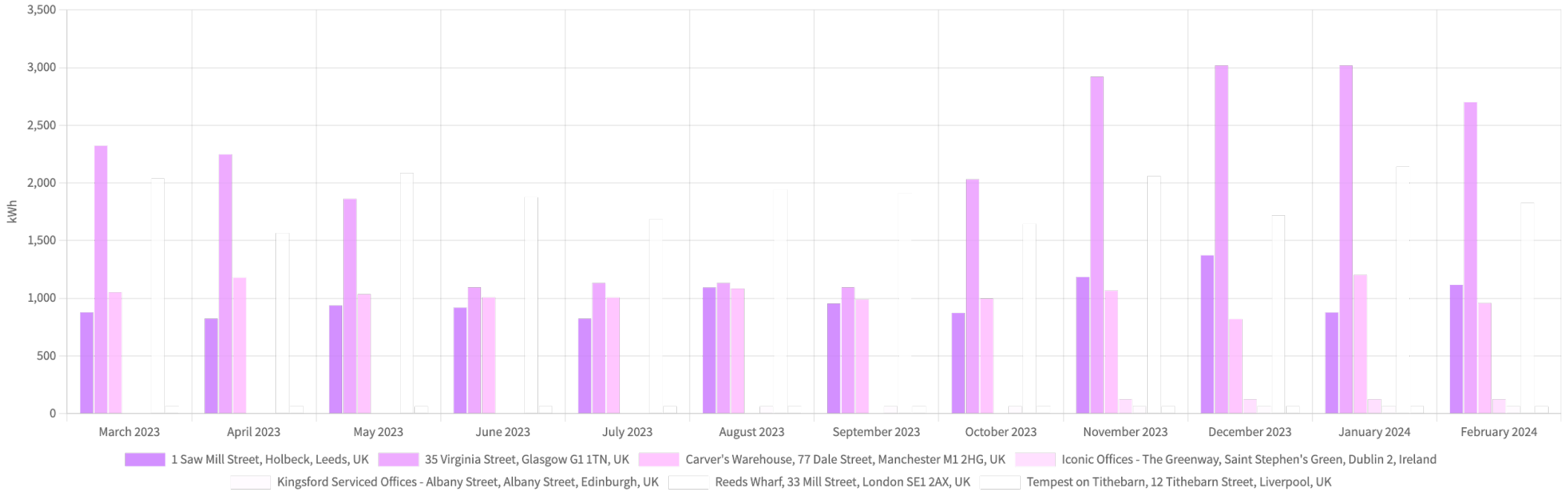
Electricity is reported using a dual reporting methodology, making use of location- and market-based emissions.

Location-based emissions refer to the greenhouse gas emissions associated with the production and delivery of electricity within the grid as an entire network.

Market-based emissions for electricity take into account the emissions associated with the production of the electricity that a consumer has chosen to purchase - for example, a low carbon tariff.

Both values are reported within the Virtual Sustainability Officer®.

Electricity Use



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Explore Data →

2
GHG Scope

6.66 tCO2e
Total Impact

6.82 %
% of Total Impact

Emissions can be reported according to both Market-based and Location-based methods:

Market-based emissions: 6.66 tCO2e

Location-based emissions: 15.21 tCO2e

The fuel mix is shown by the chart below.

Electricity Mix

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3
GHG Scope

5.82 tCO2e
Total Impact

5.96 %
% of Total Impact

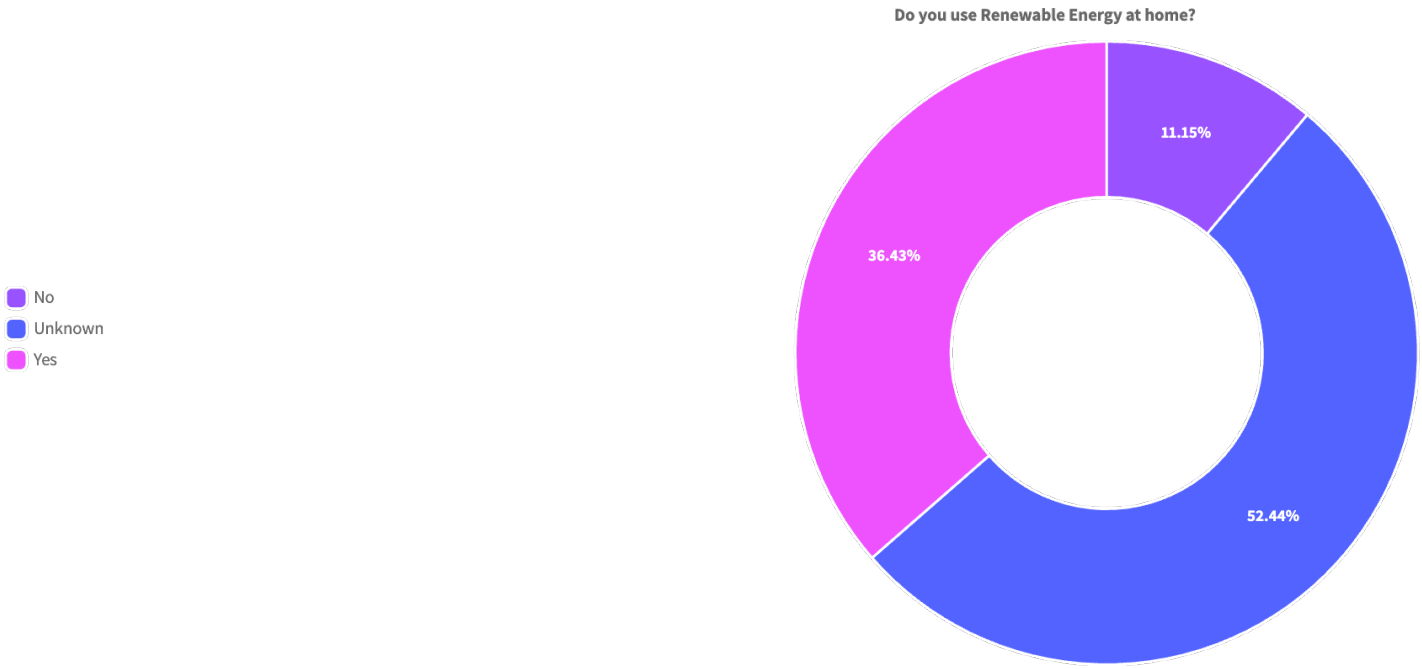
Explore Data →

Working-from-home emissions come directly from employee responses when completing their onboarding (or annual confirmation exercise).

These take into account whether the employee has chosen to use a low-carbon tariff at home, and also how much heating they typically use in a working day.

It is important to help employees to understand the impact of working from home and what they can do to reduce it. We recommend actively engaging employees to choose low carbon electricity tariffs at home.

Using renewable energy at home?



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1 3
GHG Scope

3.08 tCO2e
Total Impact

3.15 %
% of Total Impact

Explore Data →

The impact from facilities typically comes from 4 sources: power, heating space and water, cooling, and water consumption.

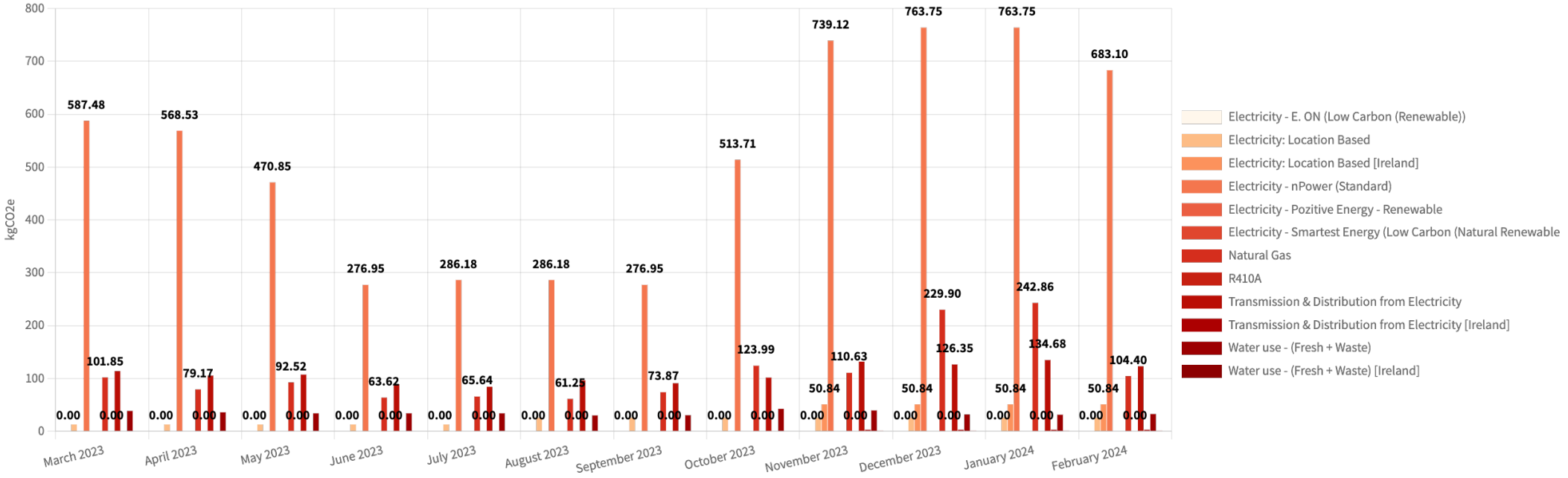
You can reduce your emissions from power by choosing a low carbon electricity provider for all company sites and committing to being powered by 100% low carbon power as a company.

You can reduce emissions from heating by actively engaging with the team managing facilities, or by choosing a facility with a highly efficient energy rating.

Water use tends to be a low emitting category, and this will lowe further as national net zero goals are targetted.

When refrigerants (typically from AC units) leak into the atmosphere they can have enormous impacts. As such, we encourage very active monitoring of systems to ensure any leaks are investigated as soon as possible.

Facilities Emissions



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Explore Data →

3
GHG Scope

2.22 tCO2e
Total Impact

2.27 %
% of Total Impact

Hotel travel is recorded from expenses, and cross-referenced with any additional information added from Events data.

The impact per night of a hotel stay typically relys on the power-grid for the country in which the hotel is based. For a country with a very low carbon grid (i.e. France) the impact for a hotel stay will be lower than a night in a country with a carbon intensive electricity grid (i.e. The Maldives).

Hotel stays should also be booked within hotels that themselves have a commitment to net zero.

Hotels

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3
GHG Scope

1.92 tCO2e
Total Impact

1.97 %
% of Total Impact

Explore Data →

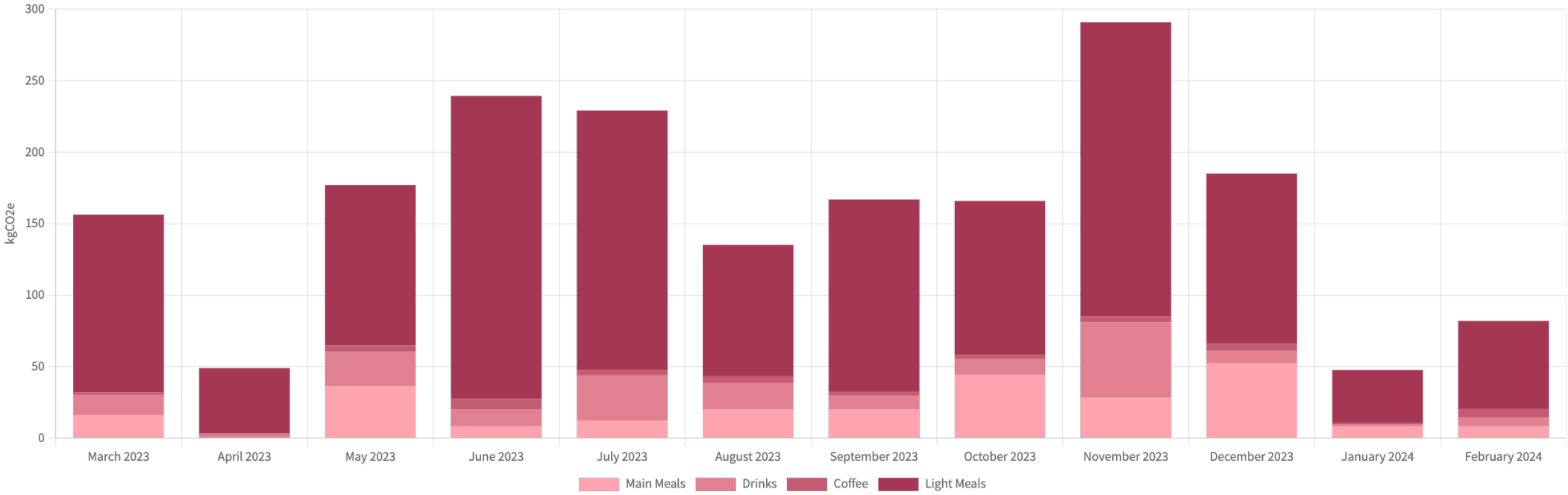
Emissions from general sustenance (for example for meetings, socials, and when travelling) contribute to the company emission profile but are often overlooked.

The impact comes from analysed expenses and can be categorised by the different type of sustenance (i.e. coffees, food, or drinks).

Moving forward, we recommend providing as much information as possible on the expense submissions to allow accurate categorisation and tracking in future years. For more information, we can provide an ideal template for the expenses and the company can introduce guidelines for expense entry.

We recommend searching for local restaurants that actively engage with net zero goals themselves, and using these as the main “go-to” spots for meetings and company socials.

Meals and Sustenance Emissions



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3	1.21 tCO2e	1.24 %
GHG Scope	Total Impact	% of Total Impact

Explore Data →

Flights often contribute significantly to a company emission profile due to the very nature of the carbon intensive aviation industry.

Business class (or above) flight contributions are significantly higher than their economy class counterparts due to the space taken up within the plane.

Company travel policies can address emissions reductions from flights by following a combination of the following; checking that the flight is necessary in the first place, checking if the flight class is appropriate for the journey, making sure that the flight can't be replaced by train travel (especially in Europe), and making sure that journeys are optimised.

Flight Map

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3
GHG Scope

1.04 tCO2e
Total Impact

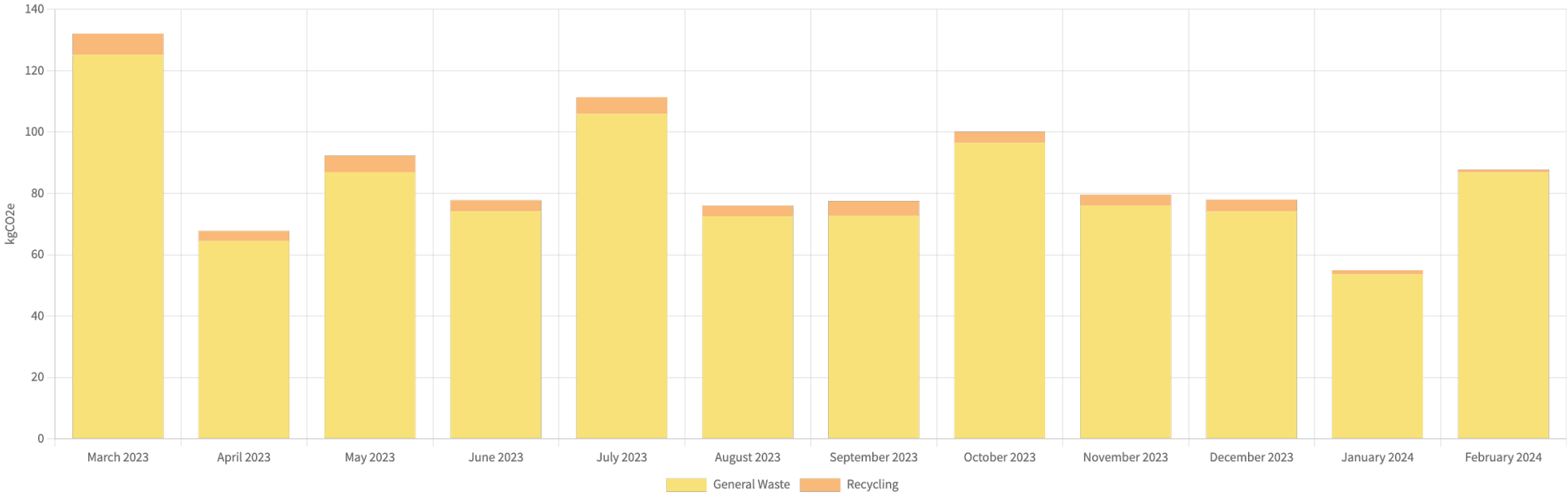
1.06 %
% of Total Impact

Explore Data →

Emissions from waste come from the data inputs provide by the waste data holder.

In general, we recommend implementing organic waste and recycling points, ensuring that signage and instructions are clear for all employees, and using suppliers that transfer zero waste to landfill.

Waste Emissions



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3
GHG Scope

1.02 tCO2e
Total Impact

1.04 %
% of Total Impact

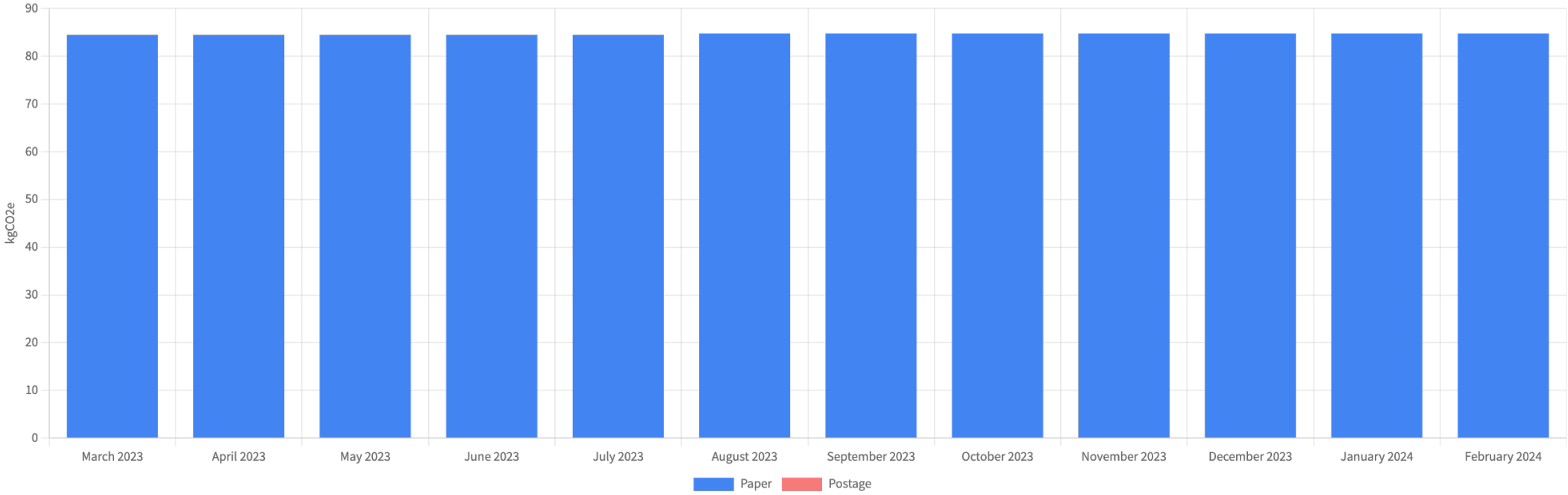
Explore Data →

Emissions from paper come from reports generated from print usage.

Emissions from postage come from expenses which are categorised by their type.

We recommend implementing and following a strong Environmental Purchasing Plan (EPP) to ensure that the printing company and companies used for postage and couriers are aligned to the company's net zero plan.

Paper and Distribution Emissions



3
GHG Scope

0.19 tCO2e
Total Impact

0.19 %
% of Total Impact

Explore Data →

Emissions from general purchased items (electronic assets are calculated separately) contribute to the company emission profile in Scope 3.

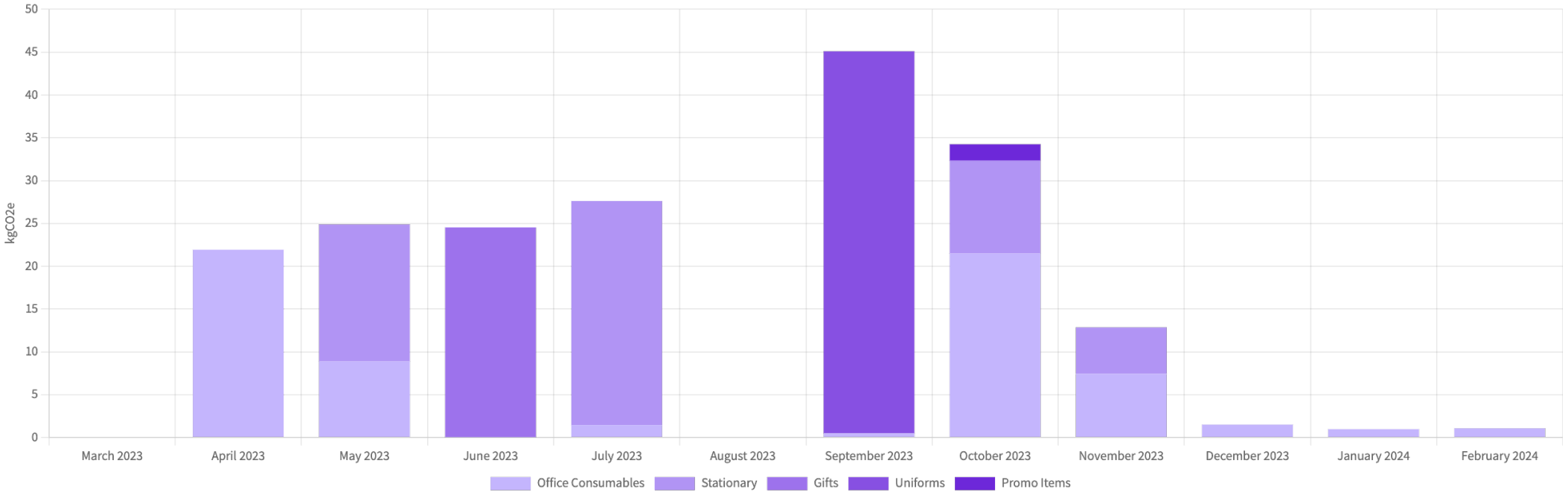
The impact comes from items within the analysed expenses and can be categorised directly.

These items include Stationary, Office Furniture, and Office Consumables.

Moving forward, we recommend providing as much information as possible on the expense submissions to allow accurate categorisation and tracking in future years. For more information, we can provide an ideal template for the expenses and the company can introduce guidelines for expense entry.

We recommend implementing and following a strong Environmental Purchasing Plan (EPP) to ensure that company purchases are aligned to the company's net zero plan.

Purchased Goods Emissions



The supply chain has been analysed using an extension of the Pareto principle to measure the top proportion of company spend.

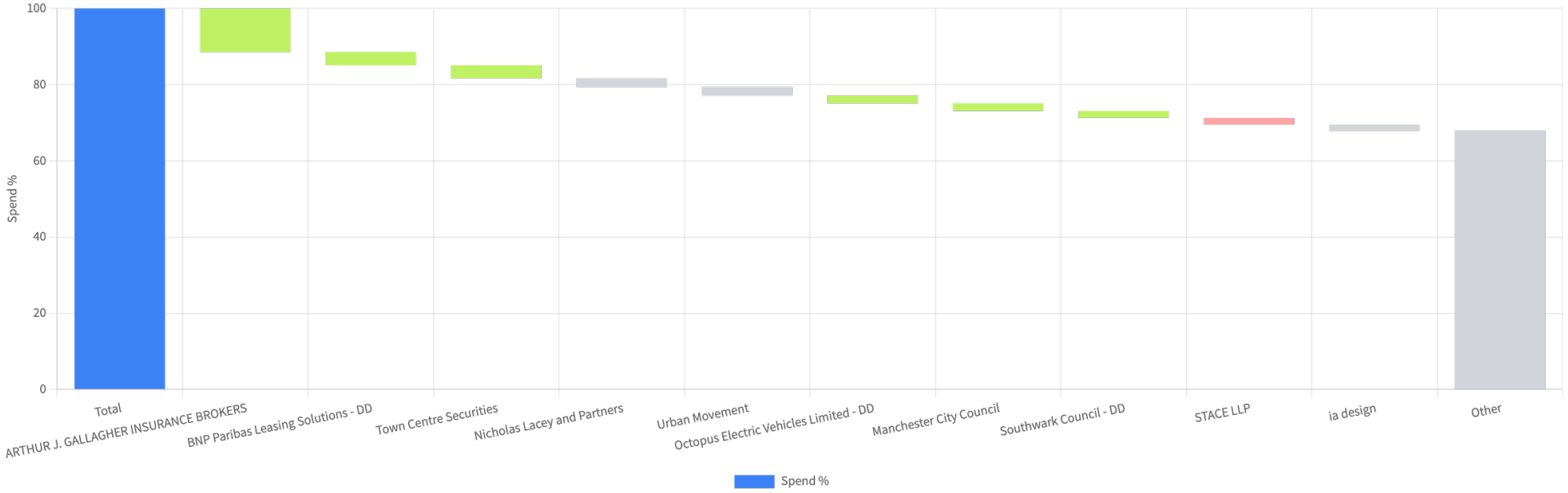
A company is highlighted in green if it passes the assessment. This means the company reports emissions publicly and has a net zero strategy in place.

A company is highlighted in amber if it has clear engagement with sustainability, but hasn't publicly published its carbon emissions or net zero goals. A standard sustainability policy isn’t enough to be considered in this bucket.

A company is highlighted in red if it has no engagement with sustainability publicly listed, or its publicly listed documents lack data or clear goals and targets of how the company will reach net zero.

You can explore this section in more detail here: https://vso.alectro.io/supply-chain

Supply Chain Emissions



We have used publicly available data to report what competitors are doing to address their net zero agenda, and their carbon emissions.

Currently, it can be difficult to compare carbon emissions at face value because companies report varying levels of depth when it comes to their operational boundary.

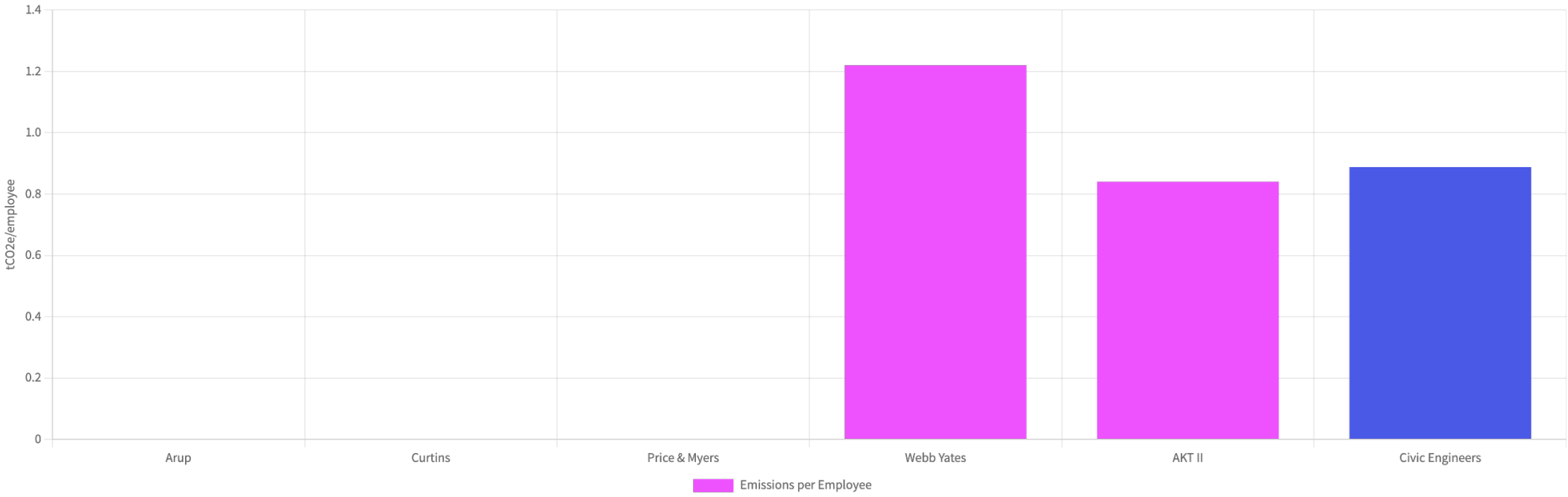
We recommend that Civic Engineers uses this report, the data within it, and the understanding from the process, to really understand what competitors are and are not reporting before drawing conclusions on the relative impacts.

For this reason, we also recommend total transparency when reporting your own carbon impact so when external organisations are looking at your reporting, they are provided with a clear explanation of what is and is not reported.

If no data is shown, then the competitor doesn't report its impact publicly.

You can explore this section in more detail here: https://vso.alectro.io/competitors

Direct Competitors Emissions Per Employee



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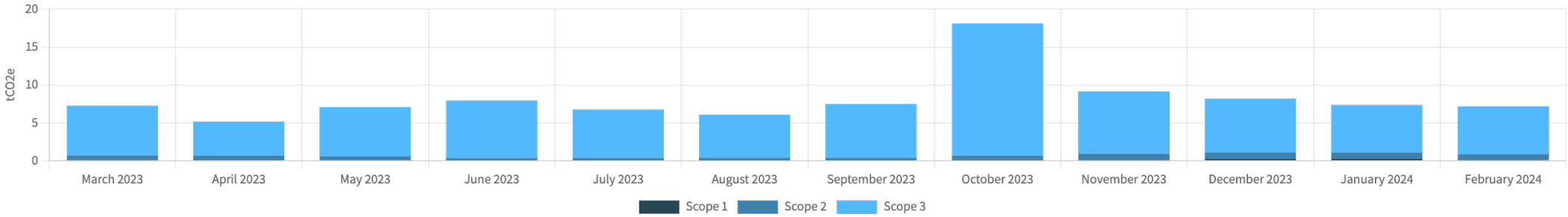
Frameworks /

Here you can find your emissions broken down by their GHG Protocol Scope. To explore these emissions in more detail, please visit https://vso.alectro.io/overview/summary-by-scope

Emissions by Scope

Type	tCO2e	tCO2e/employee	%
Scope 1	1.35	0.01	1.38%
Scope 2	6.66	0.06	6.82%
Scope 3	89.65	0.82	91.80%
Total	**97.67**	**0.89**	**100%**

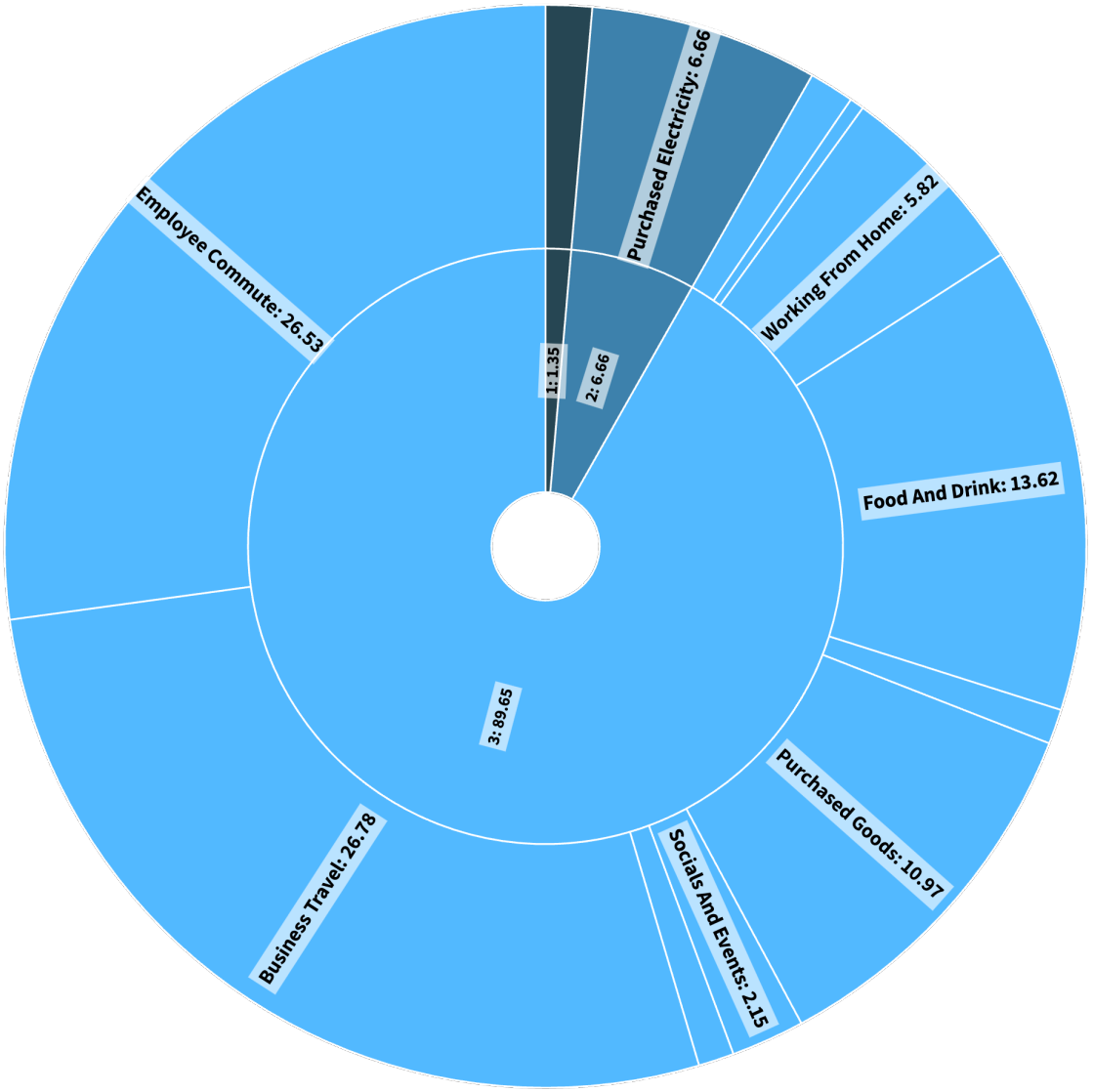
Monthly Emissions by Scope



Here you can find your emissions broken down by their GHG Protocol Scope.

This allows you to quickly report emissions in line with the GHG Protocol. Scope 2 emissions take Market-Based emissions where possible, but fall back to Location-Based emissions where they don't exist.

To explore these emissions in more detail, please visit https://vso.alectro.io/overview/summary-by-scope



Scope	Type	Category	Company tCO2e	tco2e/Employee	% of total
1	Facilities	Heating	1.35	0.01	1.38%
1	Facilities	Refrigerant	0.00	0.00	0.00%
2	Facilities	Purchased Electricity	6.66	0.06	6.82%
3	Facilities	Transmission and Distribution	1.31	0.01	1.35%
3	Facilities	Water Use	0.42	0.00	0.43%
3	Facilities	Working From Home	5.82	0.05	5.96%
3	Operations	Food and Drink	13.62	0.12	13.95%
3	Operations	Material Use	1.02	0.01	1.04%
3	Operations	Purchased Goods	10.97	0.10	11.23%
3	Operations	Socials and Events	2.15	0.02	2.20%
3	Operations	Waste Generated	1.04	0.01	1.07%
3	Transport	Business Travel	26.78	0.24	27.42%
3	Transport	Employee Commute	26.53	0.24	27.17%

Index	Group	Category	tCO2e	tCO2e/Employee	% of total
1		Scope 1	1.35	0.01	1.38%
2		Scope 2	6.66	0.06	6.82%
3		Scope 3	89.66	0.82	91.80%
Total		**Total**	**97.67**	**0.89**	**100%**

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Methodology /

Alectro: This analysis was conducted by Alectro Ltd, for any questions please get in touch with us by emailing hello@alectro.io

Civic Engineers: This project was led by laurie@civicengineers.com

Reporting Period: 1 March 2023 - 29 February 2024

Report Generated: This report was generated on 23 August 2024

Organisational Boundaries: We will use the operational control approach to establish the organisational boundary of Civic Engineers's carbon reporting. As defined by the GHG Protocol, this will include Operations where you have the full authority to introduce and implement operating policies. Under this approach, 100% of GHG emissions from all owned and leased facilities over which the Civic Engineers has direct operational control are included.

Operational Boundaries: All GHG emissions associated with the organisational boundary are included and categorised as Scope 1 (direct), Scope 2 (required indirect), and Scope 3 (optional indirect) emissions.

Alectro believe that emission reporting should be conducted with the same importance as financial accounting and reporting. In line with the World Resource Institute (WRI) GHG Accounting and Reporting Principles, this analysis and report has been conducted to ensure that the information is a true and fair account of Civic Engineers and its current situation. We therefore ensure our analysis and reporting is based on the following principles:

Relevance: We ensure the GHG inventory appropriately reflects the GHG emissions of the company and serves the decision-making needs of users – both internal and external to the company.

Completeness: We account for and report on all GHG emission sources and activities within the chosen inventory boundary, including disclosing and justifying any specific exclusions.

Consistency: We use consistent methodologies to allow for meaningful comparisons of emissions over time. We transparently document any changes to the data, inventory boundary, methods, or any other relevant factors in the time series.

Transparency: We address all relevant issues in a factual and coherent manner, based on a clear audit trail. We disclose any relevant assumptions and make appropriate references to the accounting and calculation methodologies and data sources used.

Accuracy: We ensure that the quantification of GHG emissions is systematically neither over nor under actual emissions, as far as can be judged, and that uncertainties are reduced as far as practicable. We achieve sufficient accuracy to enable users to make decisions with reasonable assurance as to the integrity of the reported information.


The Virtual Sustainability Officer® ecosystem
GHG Protocol
Direct Fuel
Refrigerants
Company Vehicles
Scope 1
Purchased Electricity and Heat
Scope 2
Water Use
T&D Losses
Waste Generated
IT Equipment
Hotel Stays
Business Travel
Food and Drink
Commute
Working-from-Home
Company Events
Cloud Computing
Courier & Postage
Produced Goods
Purchased Goods
Scope 3
Supply Chain
Competitors
Employee Engag.
Tertiary

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