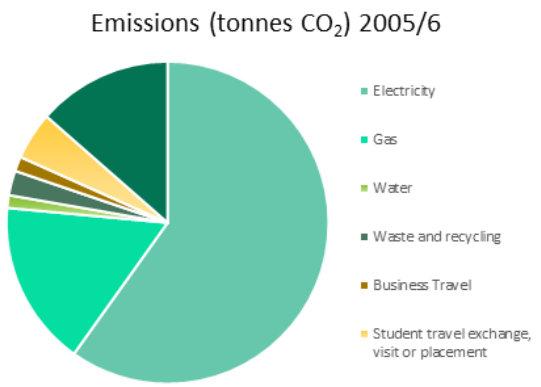
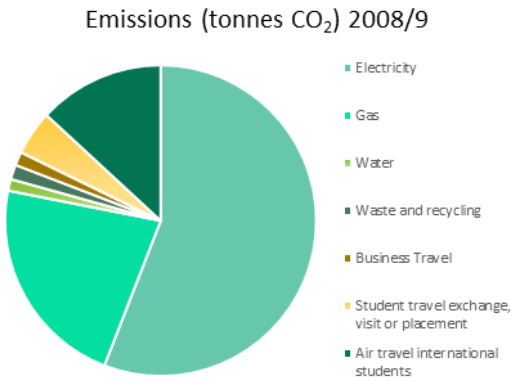
UCB Carbon Emissions Report Summary (2022-23)

University College Birmingham (UCB) is committed to achieving net zero carbon emissions by 2041 as part of the West Midlands Combined Authorities Business pledge. This report presents the findings from the 2022-23 Carbon Emissions Report, which analyses UCB's energy data and carbon emissions following the GHG Protocol 2023 methodology.

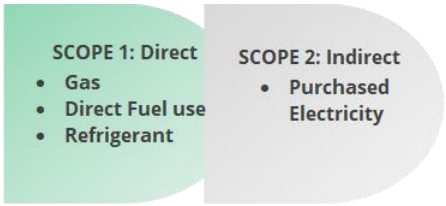
Historic Baseline



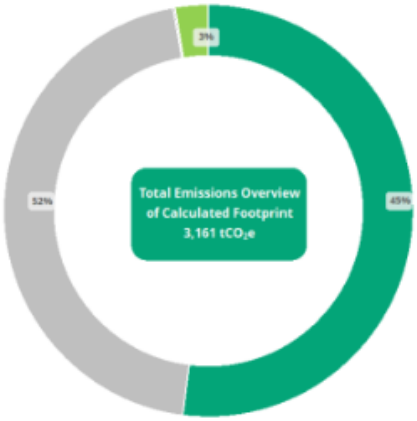


Reporting Methodology

- Focus on Scope 1 & 2 emissions (direct and indirect emissions from owned sources).
- Scope 3 emissions data is currently unavailable.
- Emphasizes the need for comprehensive monitoring and reporting of emissions to understand energy consumption and carbon footprints.



Carbon Benchmark Analysis 2022/23



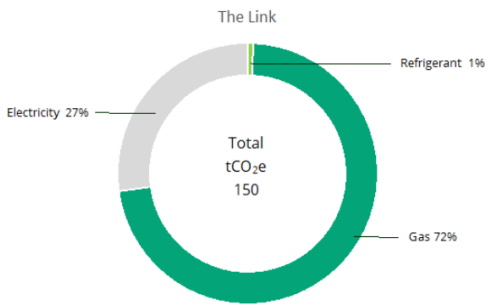
Total Carbon Footprint, for campus activities: 3,161 tCO_2e

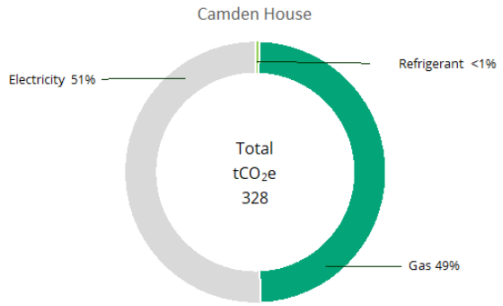
Gas	1,434	tCO_2e
Electricity	1,639	tCO_2e
Vehicles	5	tCO_2e
Refrigerant	83	tCO_2e

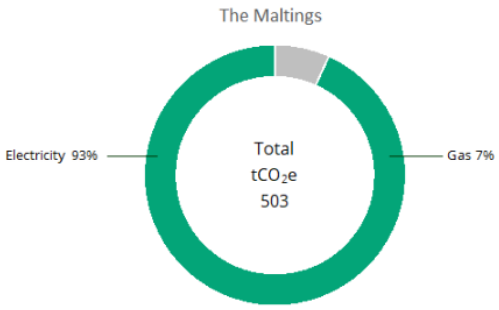
#Fuel for travel - <1%

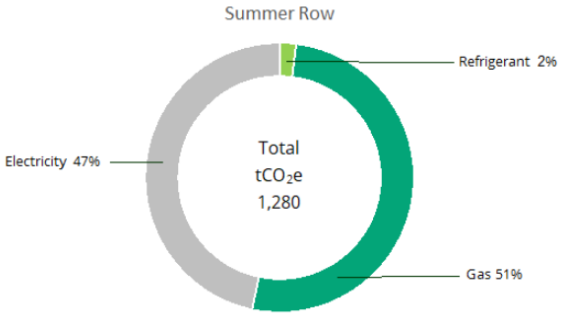
Emission Breakdown by Building

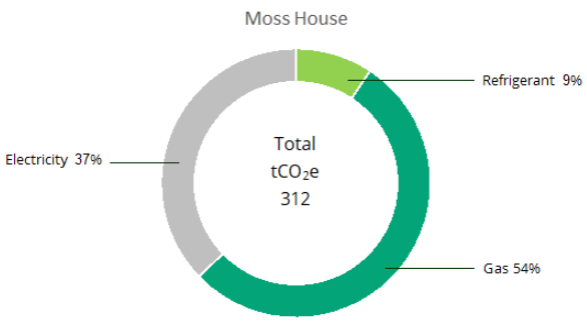
Emissions categorized by electricity, gas, refrigerants, and fuel for travel, with specific data for each building.

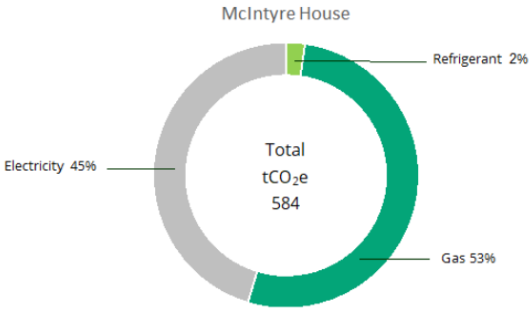












Next Steps to Achieve Net Zero

- **Metering Strategy**: Establish robust data collection for accurate energy monitoring.
- **Building Stock Information:** Utilize software like REVIT for better building modelling.
- **Data Collection & Storage:** Consolidate data methods for easier access and tracking.
- **Strategic Direction:** Develop a Heat Decarbonisation Plan to guide UCB's carbon neutrality efforts.
- **Renewable System Integration:** Explore solar PV and other renewable energy options**.**
- **Feasibility Studies:** Assess the viability of solar thermal energy, air source heat pumps and bio-renewable energy systems for UCB.

Summary of Potential Savings

Capital cost and energy savings data highlight the potential for significant reductions in energy demand and costs across UCB's buildings, with potential savings of over 3.9 million kWh and approximately £696,192 in cost savings through energy efficiency improvements.

Estate Analysis

The report also includes data on additional buildings previously part of the UCB estate, contributing an estimated 11 tCO2e from electricity usage. The revised total carbon footprint now stands at 3,173 tCO2e, including all relevant buildings.

Conclusion

UCB is on a clear path towards meeting its carbon neutrality goal. The outlined strategies and findings from this report will guide further actions to monitor, reduce, and offset carbon emissions effectively.

This summary is intended for all stakeholders at UCB, including students, staff, and senior staff, to ensure a shared understanding of our current emissions and future actions towards sustainability.