

University of Huddersfield Energy Audit Report

Conducted by Phil Tower (Energy Manager), Published [25/06/2025]

Introduction

This report summarises the findings and recommendations of an in-house summary audit of Energy Consumption at the University of Huddersfield.

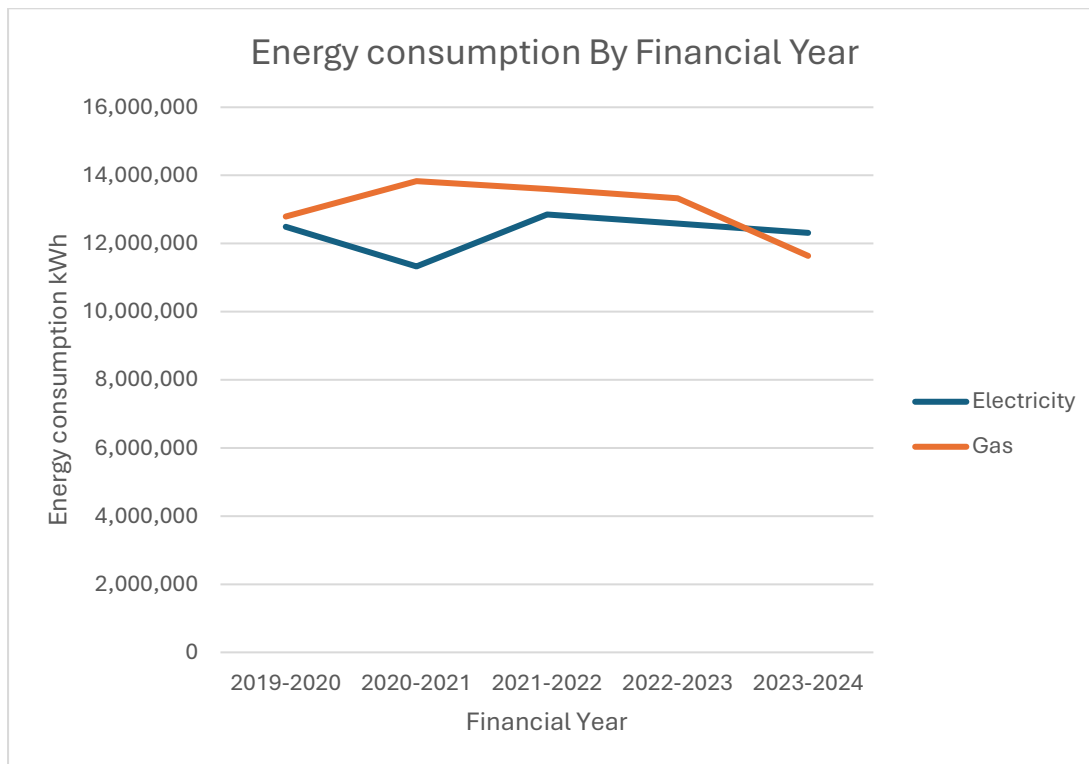
List of abbreviations

kWh	Kilowatt-hour
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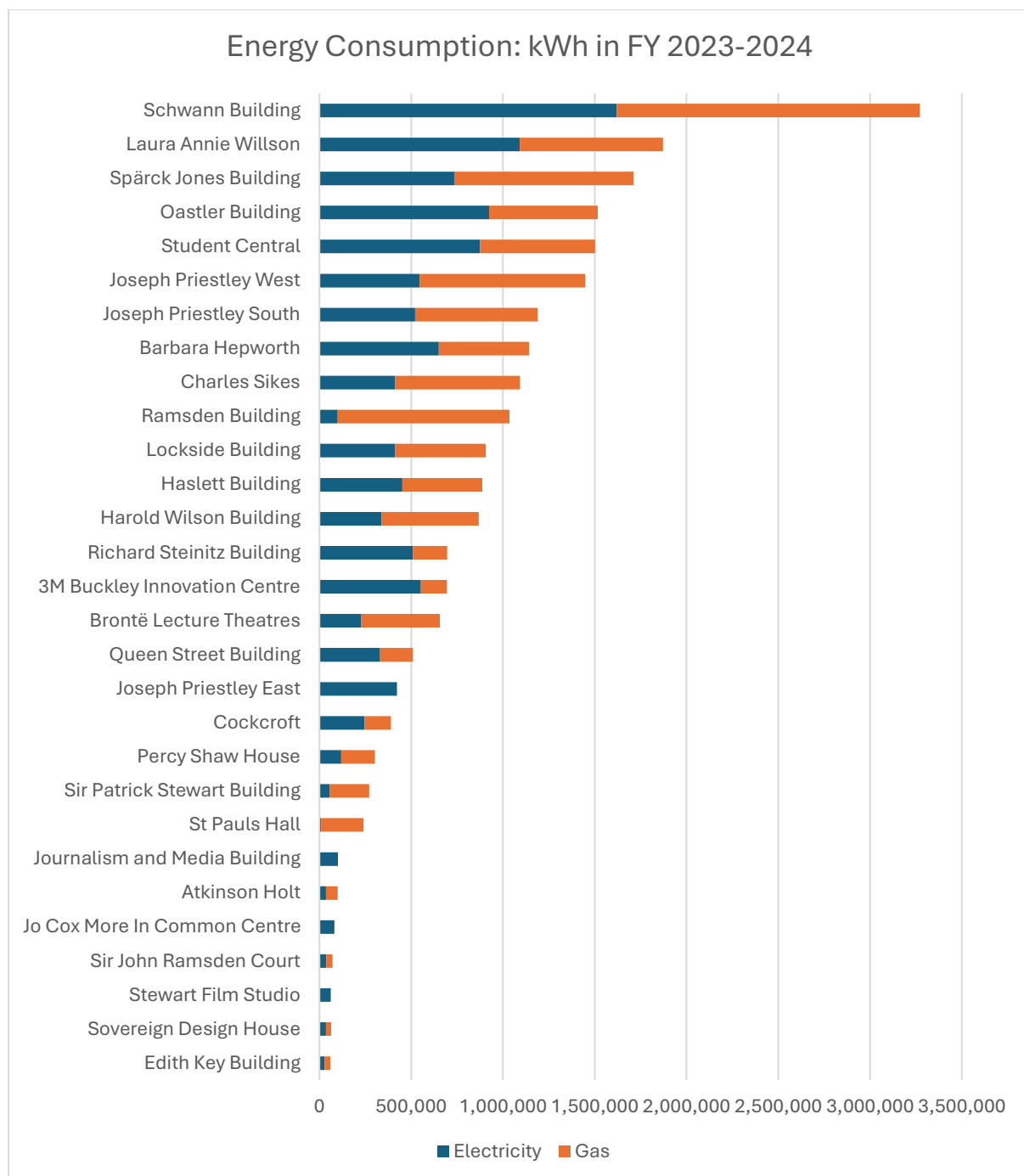
Audit Methodology

1. Review high-level energy trends across University of Huddersfield buildings
2. Select some of the highest energy consuming buildings as targets for an energy audit
3. Develop an action plan to reduce energy consumption in each of these buildings
4. Identify whether these projects could be implemented across the whole of campus

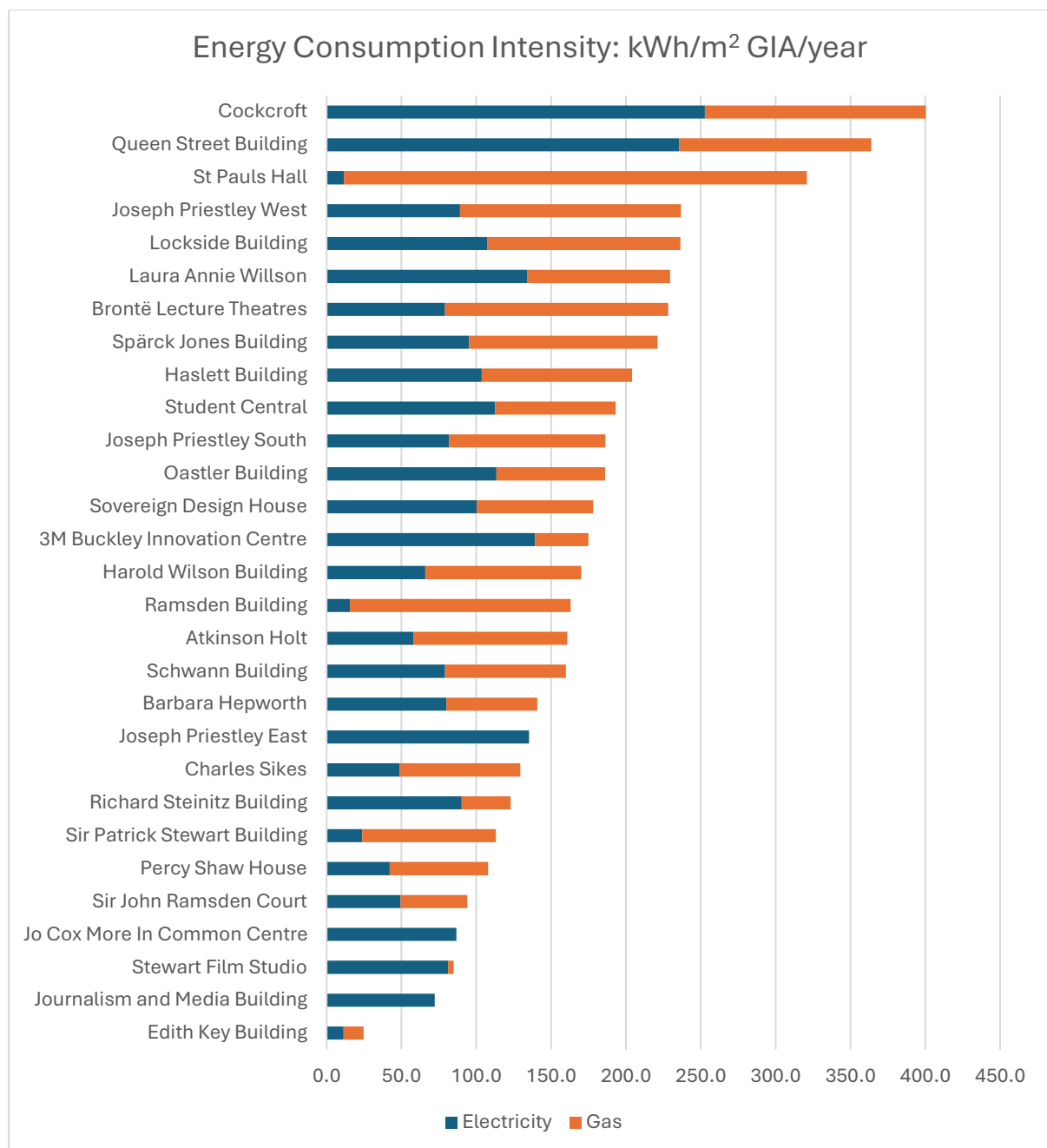
Data Analysis



When looking at aggregated annual trends for the last 5 years, we can detect an overall downward trend in energy consumption: gas consumption has reduced by 9%, and electricity consumption has reduced by 1.4%. Additional energy reduction projects will help continue and strengthen this trend.



When analysed by building, it can be seen that 6 buildings (Schwann, Laura Annie Willson, Sparck Jones, Oastler, Student Central, and Joseph Priestley West) are responsible for half of the University’s energy consumption. These buildings were selected as the primary candidates for in depth energy audits.



When energy consumption is normalised by floor area, it becomes possible to identify the buildings with the highest energy *intensity*. The top six buildings in terms of energy intensity are Cockcroft, Queen Street Building, St Pauls Hall, Joseph Priestley West, Lockside Building, and Laura Annie Wilson. Most of these buildings have intensive scientific research activities, or the presence of intensive IT loads. This explains the disproportionately high energy consumption per unit floor area.

Findings/ Results

An in-depth energy audit process has been conducted, looking at several of the buildings with the highest energy consumption. The opportunities identified by these audits have been summarised below:

Opportunity	Action taken?	Buildings applicable
Adding insulation jackets to exposed flanges.	Insulation jacket installation work has been instructed for Laura Annie Wilson building.	Most buildings across campus with hydronic heating systems.
Fine tuning pump controls.	Incorrect pump controls at Student Central have been amended, Oastler pump recommissioning in progress.	Pumps should be checked across most buildings on campus.
Resolve faulty automatic lighting system with 24/7 lighting.	Lighting controls recommissioned for several spaces across campus.	A night-time walkaround identified several buildings across campus with faulty lighting control systems, these should be investigated and resolved as a high priority.
Compressed air isolation.	Compressed air systems with leakage or overnight consumption. Successful collaborative action has been taken in Laura Annie Wilson to ensure systems are isolated overnight.	LAW, JPW, BH, LS, 3MBIC

Action Plan

Once the above actions have been successfully implemented, the following actions should be taken:

- Energy savings should be monitored and quantified
- ‘Lessons learned’ should be identified and documented.
- Viability of implementing similar projects in other buildings across campus should be assessed.
- High priority projects with maximum return on investment should be funded and implemented.