

CARBON MANAGEMENT PLAN

2024 – 2027



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INTRODUCTION

The previous carbon management plan which expired in 2020, set a target of achieving a reduction in scope 1 and 2 carbon emissions of 45% from the 2007/08 baseline (a saving of 5,488 tonnes of carbon).

The plan was so successful that it achieved a saving of 72% by 2019/20 (2,769 tonnes).

This was achieved in the most part by de-carbonisation of the electricity supply and a reduction in the number of buildings owned by the University, leading to reduced consumption. Whilst energy saving projects were carried out, the reduction in consumption was less impactful.

During this period the proportion of carbon emissions generated by gas and electricity changed:

Fuel	2007/08	2018/19	2022/23
Electricity	52%	33%	28%
Gas	39%	66%	67%
Diesel/Petrol/Heating Oil/other	9%	1%	5%

This highlights that the area for future action needs to be focussed on the reduction in gas consumption to achieve the best carbon emission savings.

REDUCTION TARGETS

The T2030 Strategy sets a target of reducing carbon emissions by 40% by 2030 from a 2020 baseline.

Total scope 1&2 emissions in 2019/20 - 2,769 tonnes

Target scope 1&2 emissions 2030 - 1,661 tonnes

By 2022/23 the carbon emissions had fallen to 2,673 tonnes which is a reduction of only 3.5%

The table below indicates the actual university consumption of electricity and gas as well as the carbon emissions per m2 in 2022/23 alongside the sector average and the targets set out in the Estates Strategy.

	Sector Median 2022/23	UoC 2022/23	Target 2025/26	Target 2026/27	Target 2029/30
Electricity and Gas Consumption kWh/m2	213	200	196	194	188

Carbon Emissions KgCO2/m2	40	38	37.6	37.2	36.1
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KPI's from Estates Strategy 2025-2035

IMPLEMENTATION PLAN

The projects through to 2027 that are included in the Estates Strategy that will generate carbon emission savings are listed below:

Year	Campus	Building	Budget	Description
2025/26	General		£340k	Prioritised BMS upgrades
	Lancaster	Chapel	£160k	Roof replacement including insulation
	Lancaster	Campus	£100k	Design of low carbon alternative heating systems
	Ambleside & Fusehill Street	Campus	£80k	Development of Decarbonisation Strategy
2025/27	Ambleside	Helvellyn	£180k	Roof replacement including insulation
2026/27	General		£400k	Prioritised BMS upgrades
	Ambleside	Helvellyn	£50k	Boiler replacement
	Ambleside & Fusehill Street	Campus	£200k	Design of low carbon alternative heating systems
	Lancaster	Chapel	£125k	Replacement of windows and internal refurbishment with carbon emission reduction improvements
2027/28	General		£100k	Prioritised BMS upgrades
	General		£75k	Prioritised LED lighting upgrades
	Lancaster	Science Link	£65k	Replacement glazing with double glazing
	Lancaster	Sentamu	£50k	Installation of PV panels
2027/29	Lancaster	Campus	£2,000k	Heating replacement with low carbon alternatives. Grant funding will be sought
	Ambleside	Helvellyn	£560k	Internal refurbishment including carbon reduction improvements
	Ambleside	Cottages	£250k	Refurbishment including carbon reduction improvements

Budget proposal from Estates Strategy 2025-2035

Although a proposed capital expenditure budget is identified in the Estates Strategy and supporting documentation, the budget is reviewed annually to comply with the University's financial plans.

IMPACT ON CARBON EMISSIONS

The projects planned through to 2027 that will have the biggest impact will be those that reduce gas consumption. They are:

- **Roof replacement** (including upgrading insulation) to Chapel, Lancaster and Helvellyn, Ambleside
- **Boiler Upgrade** to Helvellyn, Ambleside
- **BMS upgrades** – Prioritised improvement to controls of heating systems
- **Building fabric.** Replacement windows and increased wall insulation to Chapel, Lancaster

However, due to the size of the buildings the reduction in carbon emissions will not be significant.

The project that will have the biggest impact is unlikely to commence until 2027/28 which is the replacement of the district heating system at Lancaster. This year (2024/25) a decarbonisation strategy for the whole of the Lancaster campus will be completed. This will indicate budget costs, priority phasing and opportunities for grant funding. The following year, the first phase scheme will be designed, developed and tendered. The timing of the commencement of the project will be determined by the success of achieving grant funding.

In 2025/26 this process of decarbonisation plan, scheme design, grant funding applications, tendering will be carried out on both Ambleside and Fusehill street campuses.

DOCUMENT CONTROL

Revision	Date	Author	Approver	Summary of Changes
0	Dec 24	Andy Gravett	BAB	
Next review date: 2028				

