



CARBON REDUCTION Strategy Summary





QMUL has committed to a **34% reduction** on its 2005 emissions by 2020, in line with Higher Education Funding Council of England targets

Since 2005, despite a growing estate and student numbers, there has been a **17%↓** reduction in energy per m²

This is a reduction of **8,000 tCO₂e** in 2020

The installation of **126** solar panels on the library roof in Mile End

This is equivalent to a bus travelling **2,700** times around the globe

Lighting upgrades across the estate, focusing on halls of residences and the library

Staff and student engagement programmes including the Green Mary Workbook and the CampUS Challenge

There is still an increase in consumption, emissions and cost since 2005. A big focus is needed to reverse this trend to achieve absolute cost and carbon savings to make progress to our targets.

WHERE WE USE OUR ENERGY:

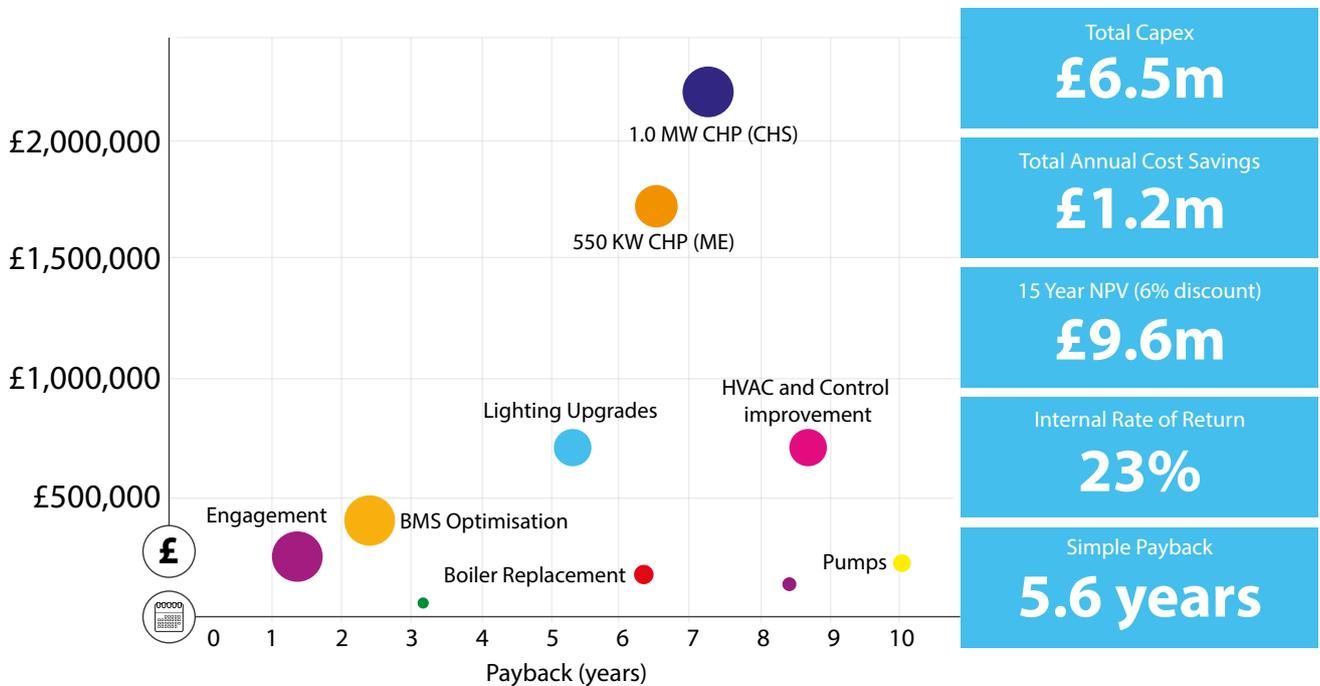
Despite differences in the size of our campuses, they all have a similar share of the energy consumption and therefore the potential to create savings.

Buildings in all three campuses and residences have been taken into account in this review. Charterhouse Square has been identified as a key focus for energy saving opportunities.



WHAT ARE OUR OPPORTUNITIES?

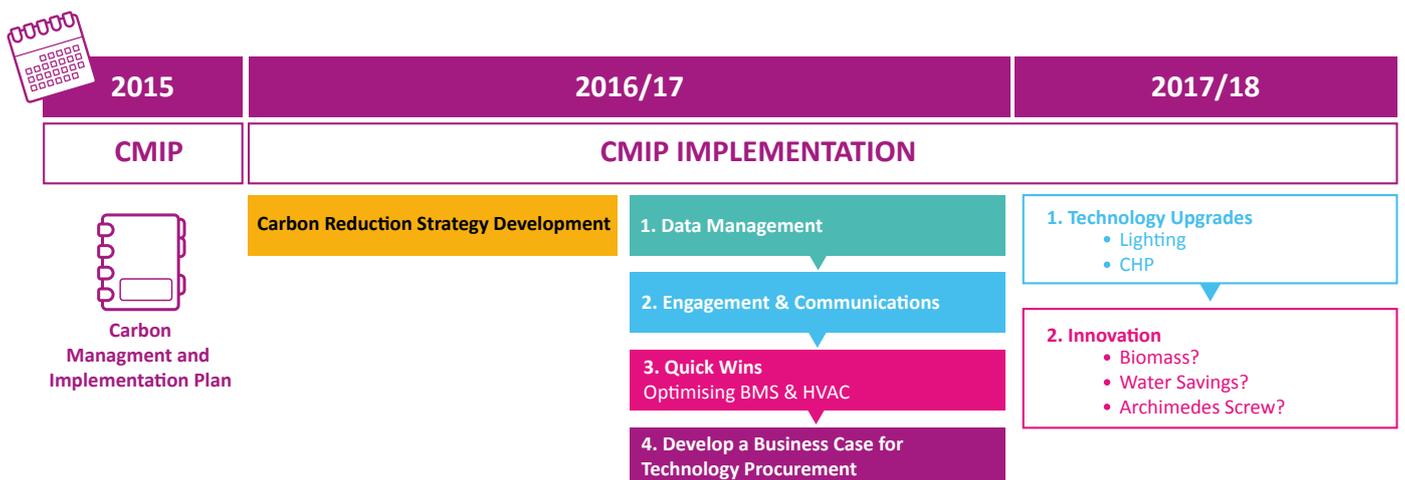
A £6.5 million investment into equipment upgrades, data management, energy optimisation and an engagement strategy for the QMUL estate could yield a £1.2 million annual saving on utilities, with a payback of only 5.6 years.



HOW ARE WE GOING TO ACHIEVE THIS?

The agreed strategy - developed by a cross university team including Estates and Facilities Senior Managers - is to start with low-cost, quick-win projects that will pay back in 1 year. The strategy will focus on improving data management to increase understanding around consumption, using people and communications to build momentum and optimise existing equipment.

This will pave the way for future large-scale investments across the university, including the re-development of Charterhouse Square with the creation of an Energy Centre to provide low-carbon heat. The identified programme will achieve circa 50% of the 2020 target, laying the groundwork for future innovative carbon and cost saving solutions.



BENEFITS OF INVESTING IN OPTIMISATION:

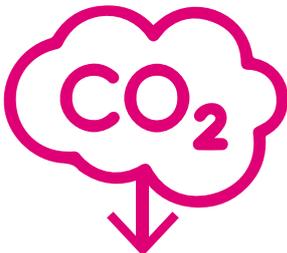
Cost of energy

QMUL currently spends over £6 million a year on utilities and this could double in the next 10 years due to predicted rising energy costs (not including potential growth). It is important that we focus efforts on mitigating against this rise in costs.

Health & Wellbeing

The design and environment of buildings have a significant impact on the health, wellbeing and productivity of its occupants, including:

Indoor air quality, including CO₂ levels



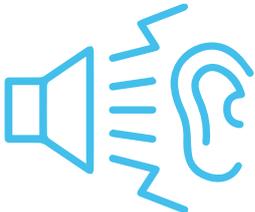
Thermal comfort



Indoor lighting and brightness



Noise, acoustics and vibrations



Without attention to the above factors, occupants can be unproductive due to headaches, eye strain and perceived productivity.

A number of the above can be addressed by the proposed investment, which will help improve student satisfaction whilst reducing energy usage and emissions.

Read our full Carbon Reduction Strategy here:



Sustainability Commitments page
<http://www.qmul.ac.uk/about/sustainability/commitments/index.html>



Sustainability homepage
<http://www.qmul.ac.uk/about/sustainability>



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